CAPS

Mind the Gap!

Economics
STUDY GUIDE

GRADE
12

basic education

Department:
Basic Education
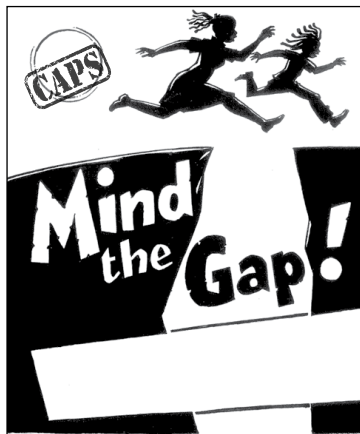**REPUBLIC OF SOUTH AFRICA**

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Ministerial foreword

The Department of Basic Education has pleasure in releasing the second edition of Mind the Gap study guides for Grade 12 learners. These study guides continue the innovative and committed attempt by the Department of Basic Education to improve the academic performance of Grade 12 candidates in the National Senior Certificate (NSC) examination.

The study guides have been written by subject expert teams comprised of teachers, examiners, moderators, subject advisors and subject co-ordinators. Research started in 2012 shows that the Mind the Gap series has, without doubt, had a positive impact in improving grades. It is my fervent wish that the Mind the Gap study guides take us all closer towards ensuring that no learner is left behind, especially as we move forward in our celebration of 20 years of democracy.

The second edition of Mind the Gap is aligned to the 2014 Curriculum and Assessment Policy Statement (CAPS). This means that the writers have considered the National Policy pertaining to the programme, promotion requirements and protocol for assessment of the National Curriculum Statement for Grade 12 in 2014.

The Mind the Gap CAPS study guides take their brief in part from the 2013 National Diagnostic report on learner performance and draws on the 2014 Grade 12 Examination Guidelines. Each of the Mind the Gap study guides provides explanations of key terminology, simple explanations and examples of the types of questions that learners can expect to be asked in an exam. Marking memoranda are included to assist learners in building their understanding. Learners are also referred to specific questions in past national exam papers and examination memos that are available on the Department's website – www.education.gov.za.

The CAPS edition include Accounting, Economics, Geography, Life Sciences, Mathematics, Mathematical Literacy and Physical Sciences. The series is produced in both English and Afrikaans. There are also nine English First Additional Language study guides. They include EFAL Paper 1 (Language); EFAL Paper 3 (Writing); and a study guide for each of the Grade 12 prescribed literature set works.

The study guides have been designed to assist those learners who have been underperforming due to a lack of exposure to the content requirements of the curriculum and aims to mind-the-gap between failing and passing, by bridging the gap in learners' understanding of commonly tested concepts so candidates can pass.

All that is now required is for our Grade 12 learners to put in the hours preparing for the examinations. Learners make us proud – study hard. We wish each and every one of you good luck for your Grade 12 examinations.

Matsie Angelina Motshekga, MP
Minister of Basic Education

Matsie Angelina Motshekga, MP
Minister of Basic Education
May 2014

Table of Contents

Dear Grade 12 learner

This *Mind the Gap* study guide helps you to prepare for the end-of-year CAPS Economics Grade 12 exam.

The study guide does NOT cover the entire CAPS curriculum, but it does focus on core content of each knowledge area and **points out where you can earn easy marks**.

You must work your way through this study guide to improve your understanding, identify your areas of weakness and correct your own mistakes. To ensure a good pass, you should also cover the remaining parts of the curriculum using other textbooks and your class notes. We are confident that this *Mind the Gap* study guide can help you to prepare well so that you pass the end-of-year exams.

The importance of your success cannot be over-emphasised. You form part of the future generation, and we all hope for a better future, a future where all our young South Africans can enjoy a high standard of living.

> *Education is the passport to the future, for tomorrow belongs to those who prepare for it today.*

Overview of the exam for CAPS Economics Grade 12

The Economics exam consists of TWO × 1½ hour papers of 150 marks each. The paper consists of SIX questions divided into three sections. Question ONE is COMPULSORY. There are FIVE other questions from which THREE must be answered. The detailed requirements for each section are shown below:

FORMAT OF THE GRADE 12 ECONOMICS QUESTION PAPERS

1. CLASSIFICATION OF TOPICS FOR GRADE 12 ECONOMICS QUESTION PAPERS

   MIDYEAR EXAMINATION PAPERS

   The two question papers are structured as follows:

ECONOMICS GRADE 12	
PAPER 1 **150 MARKS – 1½ HOURS**	**PAPER 2** **150 MARKS – 1½ HOURS**
MAIN TOPIC: MACROECONOMICS	**MAIN TOPIC: MICROECONOMICS**
TOPICS: • Circular flow • Business cycles • Public sector • Foreign exchange markets • Protectionism and Free Trade	TOPICS: • Perfect markets • Imperfect markets • Market failures

Economics is a life journey… Use it daily

TRIAL AND FINAL EXAMINATION PAPERS

ECONOMICS GRADE 12		
PAPER 1 150 MARKS – 1½ HOURS		**PAPER 2** 150 MARKS – 1½ HOURS
MAIN TOPIC: **MACROECONOMICS**		**MAIN TOPIC:** **MICROECONOMICS**
TOPICS: • Circular flow • Business cycles • Public sector • Foreign exchange markets • Protectionism and Free Trade		TOPICS: • Perfect markets • Imperfect markets • Market failures
MAIN TOPIC: **ECONOMIC PURSUITS**		**MAIN TOPIC:** **ECONOMIC ISSUES**
• Growth and Development • Industrial development policies • Economic and social performance indicators		• Inflation • Tourism • Environmental sustainability

hint

- Each paper carries 150 MARKS
- The duration of each paper is **1½ HOURS**
- Each paper comprises of SIX QUESTIONS divided into three sections.
- From the six questions only FOUR must be answered as follows:
  - SECTION A: Question 1 is COMPULSORY
  - SECTION B: Consists out of THREE questions: Questions 2–4 from which the candidate must choose only TWO
  - SECTION C: Consists out of TWO questions: Questions 5–6 from which the candidate must choose only ONE
- The above papers must not be written on the same day.
- The detailed requirements for each section are indicated on the following pages:

1. DETAIL OF GRADE 12 ECONOMICS QUESTION PAPERS

SECTION A (COMPULSORY)   TOTAL: 30
QUESTION 1 (TO BE ANSWERED IN THE ANSWER BOOK – NO LOOSE ANSWER SHEETS ARE ALLOWED)

1.1 Multiple-choice items (lower order)
    FOUR per main topic = 8 items (2 marks per item)   (8 × 2) (16)
1.2 Matching column A and B (lower order)
    FOUR items per main topic = 8 items (1 mark per item)   (8 × 1) (8)
1.3 Identify the concept (middle/lower order)
    THREE items per main topic   **(6 × 1) (6)**

SECTION B (Answer TWO QUESTIONS FROM THIS SECTION)   TOTAL: 80
QUESTIONS 2 – 4 (THREE QUESTIONS)

ONE question per MAIN TOPIC and ONE combination question (not necessarily equally distributed) of the 2 MAIN TOPICS

2.1 Short items
    2.1.1   Lower order   (2 × 1) (2)
    2.1.2   Middle order   (1 × 2) (2) (4)
2.2 Data response (middle order): Study the following graph/cartoon/
    table/text, etc. and answer the questions that follow: (10)
2.3 Data response (middle order): Study the following graph/cartoon/
    table/ text, etc. and answer the questions that follow: (10)
2.4 ONE short question (middle order): (2 × 4) OR (4 × 2)   (8)
2.5 ONE short question (higher order): (2 × 4) OR (4 × 2)   (8)
                                                                 [40]

SECTION C (ANSWER ONE QUESTION FROM THIS SECTION)   TOTAL: 40
QUESTIONS 5-6 (TWO ESSAY QUESTIONS) – ONE question per MAIN TOPIC

STRUCTURE OF ESSAY	MARK ALLOCATION
Introduction	Max. 2
Body: • **Main part:** Discuss in detail/Indepth discussion/Examine/ Critically discuss/Analyse/Compare/Evaluate/Distinguish/ Differentiate/Explain/Assess • **Additional part:** Give own opinion/Critically discuss/ Evaluate/Critically evaluate/Draw a graph and explain/Use the graph given and explain/Complete the graph/Calculate/ Deduce/Compare/Explain/Distinguish/Interpret	Max. 26 Max. 10
Conclusion	Max. 2
TOTAL	**40**

Essays play a very big role in your success in Economics, because you must choose ONE essay to answer in each question paper, counting 40 marks out of the grand total of 150 marks. Each essay counts 40 marks. This study guide includes essay topics that have been asked in past question papers. Make sure that you study each of these topics in detail in your preparation for your preparatory and final papers.

Never leave a question unanswered if you are asked to offer your own opinion. Remember: each section includes questions that are easy and almost-easy, so make sure you get these marks too.

Good luck for your NSC exams, your doorway to a better future. Dream big, set your goals and go for it!

How to use this study guide

Look out for these icons in the study guide.

- The study guide includes a table of **key concepts with definitions** which need to b**e learnt off by heart. You can gain easy marks for the recall of definitions in the single mark questions.**

NB	Pay special attention	**hint**	Hints to help you remember a concept or guide you in solving problems	**e.g.**	Worked examples
	Step-by-step instructions	**exams**	Refers you to exam questions		Activities with questions for you to answer

- A checklist from the exam guidelines for Economics has been provided on page xvi for you to keep track of your progress. Once you have mastered the core concepts and have confidence in your answers to the questions provided, tick the last column of the checklist.

- The activities are based on exam-type questions. Cover the answers and do the activity on your own. Then check your answers. Reward yourself for the things you get right. If you get any incorrect answers, make sure you understand where you went wrong before moving on to the next section.

- Each topic is briefly covered according to the exam guidelines. Valuable guidelines are provided to help you answer questions on graphs.

- **Exemplar Exam papers** are included in the study guide for you to do. Check your answers by looking back at your notes and the exam memoranda. An example of a paper goes a long way in preparing you for what to expect and helps reduce exam anxiety. Go to **www.education.gov.za** to download more past exam papers.

Use this study guide as a workbook. Make notes, draw pictures and highlight important concepts.
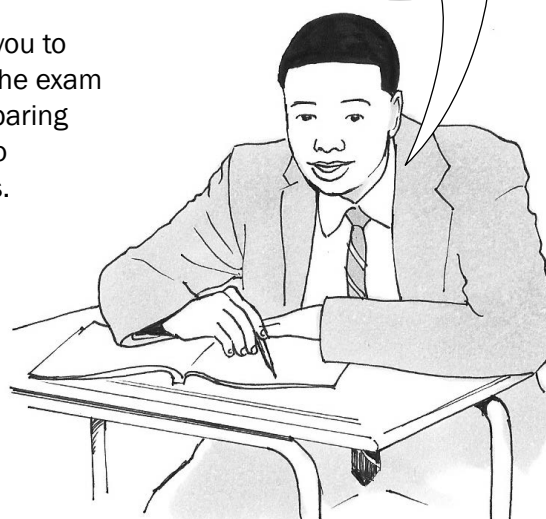
> *True individual freedom cannot exist without economic security and independence.*
>
> *Franklin D Roosevelt*

Top 10 study tips

The golden rule of effective study is the ABC – Apply Bottom to Chair!

1. Have all your materials ready before you begin studying – pencils, pens, highlighters, paper, etc.

2. Be positive. Make sure your brain holds onto the information you are learning by reminding yourself how important it is to remember the work and get the marks.

3. Take a walk outside. A change of scenery will stimulate your learning. You'll be surprised at how much more you take in outside in the fresh air.

4. Break-up your learning sections into manageable parts. Trying to learn too much at one time will only result in a tired, unfocused and anxious brain.

5. Keep your study sessions short but effective and reward yourself with short, constructive breaks.

6. Teach your concepts to anyone who will listen. It might feel strange at first, but it is definitely worth reading your revision notes aloud.

7. Your brain learns well with colours and pictures. Try to use them whenever you can.

8. Be confident with the learning areas you know well and focus your brain energy on the sections that you find more difficult to take in.

9. Repetition is the key to retaining information you have to learn. Keep going, don't give up.

10. Sleeping at least 8 hours every night, eating properly and drinking plenty of water are all important things you need to do for your brain. Studying for exams is like tough exercise, so you must be prepared physically.

Study skills to boost your learning

This guide makes use of three study techniques you can use to help you learn the material:

1. Mobile notes
2. Mnemonics
3. Mind maps

Mobile notes

Mobile notes are excellent tools for learning all the key concepts in the study guide. Mobile notes are easy to make and you can take them with you wherever you go:

1. Fold a blank piece of paper in half. Fold it in half again. Fold it again.
2. Open the paper. It will now be divided into 8 parts.
3. Cut or tear neatly along the folded lines.
4. On one side, write the basic concept.
5. On the other side, write the meaning or the explanation of the basic concept.
6. Use different colours and add pictures to help you remember.
7. Take these mobile notes with you wherever you go and look at them whenever you can.
8. As you learn, place the cards in three different piles:
   • I know well
   • Getting there
   • I need more practice
9. The more you learn them, the better you will remember them.

These mobile notes will help you study smarter...
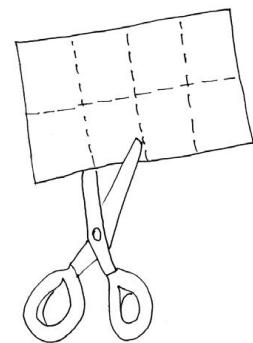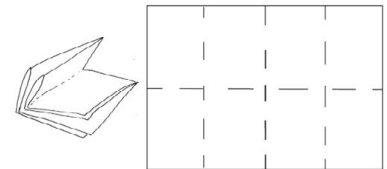
1. Fold an A4 paper into 8 squares. Cut or tear neatly along the folded lines.

OLIGOPOLY

2. Write the basic concept on one side of a bit of paper.

Market structure controlled by a small group of businesses.
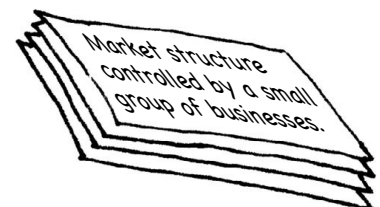
3. Write the definition of the basic concept on the back of the piece of paper.

Mnemonics

A **mnemonic** code is a useful technique for learning information that is difficult to remember.

Here is a made-up word to help you remember the 6 reasons for market failure – EMILII – each letter of the word stands for a reason:

E – Externalities

M – Missing markets

I – Imperfect competition

L – Lack of information

I – Immobility of factors of production

I – Imperfect distribution of income & wealth

Here is a sentence to help you remember the 5 demand reasons for international trade – each word in the sentence begins with the same letter as one of the reasons:

People	**I**n	**W**itbank	**P**refer	**C**offee
Population	**I**ncome	**W**ealth	**P**references	**C**onsumption

Mnemonics code information and make it easier to remember.

The more creative you are and the more you link your 'codes' to familiar things, the more helpful your mnemonics will be.

This guide provides several ideas for using mnemonics. Be sure to make up your own.

Mind maps

There are several mind maps included in this study guide, which summarise some of the sections.

Have a look at the following pictures of a brain cell (neuron) and a mind map:
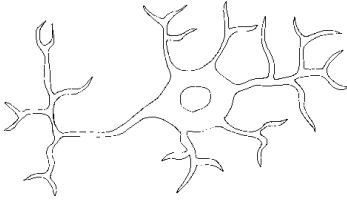
Figure 1: Brain cell or neuron
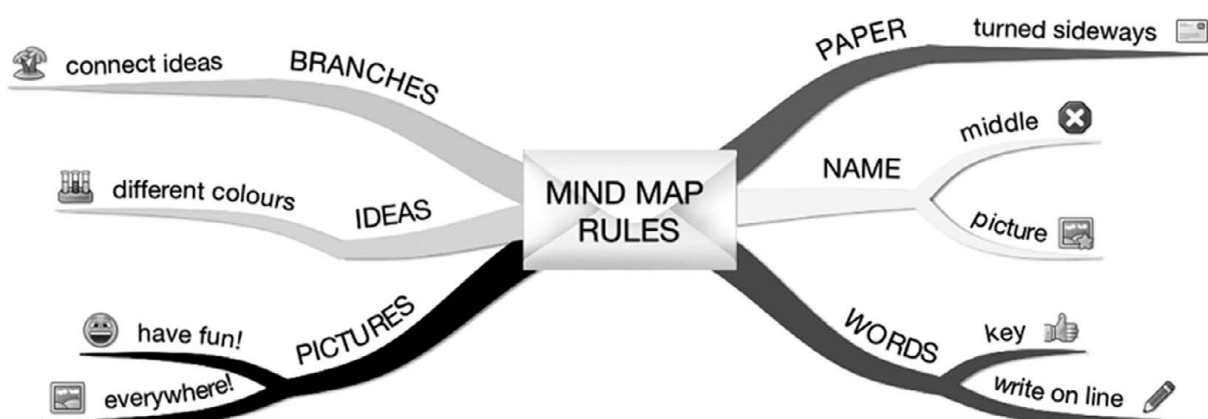
Figure 2: Mind map rules

Mind maps work because they show information that we have to learn in the same way that our brains 'see' information.

As you study the mind maps in the guide, add pictures to each of the branches to help you remember the content.

You can make your own mind maps as you finish each section.

How to make your own mind maps
1. Turn your paper sideways so your brain has space to spread out in all directions.
2. Decide on a name for your mind map that summarises the information you are going to put on it.
3. Write the name in the middle and draw a circle or bubble or picture around it.
4. Only write key words on your branches, not whole sentences. Keep it short and simple.
5. Each branch should show a different idea. Use a different colour for each idea. Connect the information that belongs together. This will help build your understanding of the learning areas.
6. Have fun adding pictures wherever you can. It does not matter if you can't draw well.

Mind mapping your notes makes them more interesting and easier to remember.

On the day of the exam …

1. Make sure you have all the necessary stationery for your exam, i.e. pens, pencils, eraser, **calculator (with new batteries)**, as well as your ID document and exam admission letter.

2. Arrive on time, at least one hour before the start of the exam.

3. Go to the toilet before entering the exam room. You don't want to waste valuable time going to the toilet during the exam.

4. Use the 10 minutes reading time to read the instructions carefully. This helps to 'open' the information in your brain. Start with the question you think is the easiest to get the flow going.

5. Break the questions down to make sure you understand what is being asked. If you don't answer the question properly you won't get any marks for it. Look for the key words in the question to know how to answer it. A list of these words is on page xvii of this study guide.

6. Try all questions. Each question has some easy marks in it so make sure that you do all the questions in the exam.

7. Never panic, even if the question seems difficult at first. It will be linked with something you have covered. Find the connection.

8. Manage your time properly. Don't waste time on questions you are unsure of. Move on and come back if time allows.

9. Check weighting – how many marks have been allocated for your answer? Take note of the ticks in this study guide as examples of marks allocated. Do not give more or less information than is required.

10. Write big and bold and clearly. You will get more marks if the marker can read your answer clearly.

Remember to take your **calculator** to your mapwork exam!

GOOD LUCK!

Question words to help you answer questions

It is important to look for the question words (the words that tell you what to do) to correctly understand what the examiner is asking. Use the words in the following table as a guide when answering questions.

Question word	What is required of you
Account for	Explain the cause of; explain why; give reasons for
Analyse	Separate; examine and interpret critically; positives and negatives; pros and cons
Argue	Put forward reasons in support of or against a statement
Assess	Estimating the nature, quality or value of something
Calculate	Use maths to work out an answer
Classify	Place things with similar characteristics in the same group; arrange according to type or sort
Comment	Give your opinion, based on facts
Compare	To list both similarities and differences
Contrast	Stress the differences between things, events or problems
Critically	Analyse something, expressing agreement or disagreement with it
Define	Give a short and clear meaning
Demonstrate	Show or make clear; illustrate or explain; prove by reasoning and evidence (note that you can give examples)
Describe	List the main characteristics of something; give an account of (note that a diagram or map may be part of a description)
Discuss	Give the reasons for your statement; present both sides and reach a conclusion
Evaluate	Express an opinion, using evidence, of how good/bad, negative/positive, successful/ unsuccessful something is
Examine	Look at something carefully and in detail
Explain	Make clear, interpret, and spell out the material you present. Give reasons for differences of opinion or of results
Give	To state facts without discussions or explanations (note that you may be asked to 'Give a reason')
Identify	Single out one particular piece of information
Illustrate	Explain or make something clear by using examples, charts, pictures and drawings
Interpret	To give an explanation of; to give the meaning of
List	Writing a list of the facts in their simplest form
State	Write down information without discussion
Suggest	Give possible reasons or ideas
Summarise	Reduce a lot of information to its main points

e.g. Examples of question words

> In every exam question, put a CIRCLE around the question word and underline any other important key words. These words tell you exactly what is being asked.

Refer to Table 1.2.2 (income method) and answer the following questions:

1. Which organisation is responsible for the recording and publishing of GDP figures in South Africa? (2)
2. Explain the concept 'subsidies on products'. (3)
3. Give TWO examples of taxes on products. (4)
4. Calculate the consumption of fixed capital in 2009 as a percentage of GDP at market price. Show all calculations. (4)

Learner's Checklist

Use this checklist to monitor your progress when preparing for the exam. **The ticks (✓) tell you which aspects of the curriculum are covered in the study guide. The stars (*) tell you to go to textbooks and class notes.**

Topic	Aspects of the curriculum	Covered in Study guide	I do not understand	I understand
	Main Topic: Macroeconomics			
Topic 1 Open economy circular flow model	Concepts	✓		
	Four sector diagram	✓		
	Participants	✓		
	National account aggregates and conversions	✓		
	Multiplier	✓		
Topic 2 Business cycles and forecasting	Concepts	✓		
	Composition and features of business cycles:	✓		
	Causes of business cycles	✓		
	Types of business cycles	✓		
	Government policy	✓		
	The new economic paradigm (smoothing of cycles)	✓		
	Features underpinning forecasting with regard to business cycles	✓		
Topic 3 Public Sector	The composition and necessity of the public sector	✓		
	Problems of public sector provisioning	✓		
	Objectives of the public sector and its budget	✓		
	Fiscal policy (including the Laffer curve)	✓		
	Reasons for public sector failure	✓		
Topic 4 Foreign exchange market	The main reasons for international trade	✓		
	The balance of payments	✓		
	The establishment of foreign exchange rates	✓		
	Foreign exchange markets	✓		
	Corrections of BOP surplus and deficit (disequilibria)	✓		

Topic	Aspects of the curriculum	Covered in Study guide	I do not understand	I understand
Main Topic: Macroeconomics				
Topic 5 Protection and free trade (Globalisation)	Export promotion	✓		
	Import substitution	✓		
	Protectionism (the arguments)	✓		
	Free trade (the arguments)	✓		
	A desirable mix	✓		
	Evaluation of South Africa's trade policies	✓		
Main Topic: Microeconomics				
Topic 6 Dynamics of Perfect Markets	Perfect competition	✓		
	Individual business and industry	✓		
	Market structure	✓		
	Output, Profits, Losses and Supply	✓		
	Competition policy	✓		
Topic 7 Dynamics of imperfect markets	Monopoly	✓		
	Oligopoly	✓		
	Monopolistic competition	✓		
Topic 8 Dynamics of markets: Market failures	The causes of market failures	✓		
	Consequences of market failures	✓		
Main Topic: Economic Pursuits				
Topic 9 Economic Growth & Development	Background/A comparison between	✓		
	The demand-side approach	✓		
	The supply-side approach	✓		
	Evaluation of the approaches used in South Africa	✓		
	The North/South divide	✓		

Topic	Aspects of the curriculum	Covered in Study guide	I do not understand	I understand
Main Topic: Economic Pursuits				
Topic 10 Economic growth and development: industrial development policies	Industrial development in South Africa	✓		
	Regional development	✓		
	South Africa's endeavours	✓		
	Incentives to encourage industrial development	✓		
	Appropriateness of South Africa's industrial policies	✓		
	Appropriateness of South Africa's regional development policies	✓		
	Small business development	✓		
	The appropriateness of Black Economic Empowerment in the SA economy	✓		
	Best practice for regional development	✓		
Topic 11 Economic and social performance indicators	The performance of an economy	✓		
	Economic indicators	✓		
	Social indicators	✓		
	International comparisons	✓		
Main Topic: Contemporary Economic Issues				
Topic 12 Economic issues of the day: Inflation	Definition	✓		
	Measuring inflation	✓		
	Types and characteristics of inflation	✓		
	Causes of inflation	✓		
	Consequences of inflation, on	✓		
	The inflation problem in South Africa	✓		
	Measures to combat inflation	✓		

Mind the Gap CAPS Grade 12 Economics

Topic	Aspects of the curriculum	Covered in Study guide	I do not understand	I understand
Main Topic: Contemporary Economic Issues				
Topic 13 Economic issues of the day: Tourism	**Definition**	✓		
	Purposes/types of tourism	✓		
	Measuring tourism	✓		
	Reasons for its growth	✓		
	The effects of tourism on	✓		
	The benefits of tourism on	✓		
	South Africa's profile (indigenous knowledge systems)	✓		
	Policy suggestions – Department of Tourism	✓		
Topic 14 Economic issues of the day: Environmental sustainability	**The state of the environment**	✓		
	Measures to ensure sustainability	✓		
	Major international agreements	✓		

Chapter 1

The circular flow model, national account aggregates and the multiplier

The **circular flow model, national account aggregates** and the **multiplier** are three key terms in Economics.

According to the **circular flow model**, the three key sectors of the economy (**consumer, business** and **government**) all work together to ensure that society's needs are provided for through the creation of goods and services.

The **national account aggregates** are an important means of **analysing the performance of a country**. The most important of these aggregates is the **Gross Domestic Product** (GDP).

The marginal propensity to consume is what shows the amount of each rand that people will use for consumption within a country at a particular time.

The **multiplier** is derived from the marginal propensity to consume. It is a ratio which shows that the increase in income in a country will be greater than the initial increase in spending.
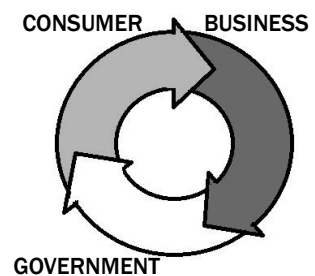
Formula: $M = \dfrac{1}{(1 - mpc)}$

The formula can also be written as $K = \dfrac{1}{(1 - mpc)}$ or $\alpha = \dfrac{1}{(1 - mpc)}$

Overview

TOPIC	CONTENT	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES

1. Circular flow	**Present the circular flow as a macroeconomic model**
	
	• **The open economy circular flow model**
	  – **Concepts**
	  – **The complete four sector diagram**
	  – **Participants**
	    – Households
	    – Business sector
	    – Government
	    – Foreign sector
	  – **Real and money flows**
	  – **Injections ($J = I + G + X$)**
	  – **Leakages ($L = S + T + M$)**
	  – **Equations e.g. $Y = C + I + G + (X - M)$**
	  – **Markets**
	    – **Factor market**
	    – **Market for goods and services/ products**
	    – **Financial Market – Money and Capital**
	    – **Foreign market/foreign exchange**
	    – **Flows through different markets (production, income and spending)**
	
	Deduce and analyse the national account aggregates and conversions
	
	• **National account aggregates and conversions**
	Measuring National Account Aggregates:
	  – Production GDP(P) – GDP
	  – Income GDP(I) – GDI
	  – Expenditure GDP(E) – GDE
	National Account Conversions:
	  – System of National Accounts (SNA)
	  – (Nominal and Real prices, Basic prices, Factor cost, Market prices, Net Figures, Domestic and National figures and disposable national income)
		• Definitions and explanations
		• Identification of participants, flows, injections and leakages from a diagram
		• In-depth discussion of the inter-relationships between participants
		• Draw and interpret a circular flow diagram
		• Discussion of an economy in equilibrium
		• Justify the equality: $L = J$ and illustrate its component elements
		
		• Explain the relationship between markets within the FOUR SECTOR model
		• Link the operation of financial and foreign exchange markets to the other participants of the circular flow
		
		• Definitions and explanations
		• Identify from table
		• Briefly discuss the THREE methods
		• Explain the concepts used in national accounts
		• Analyse, interpret and derive aggregates
		• Analyse the national account conversions
		
		HOT QUESTION: How is expenditure related to income and production?

	Derive and apply the multiplier	• Define the concept
	• **The multiplier**	**HOT QUESTION: Explain the multiplier process by using the graph and the following formula: $\Delta Y/\Delta E$**
	– Definition of multiplier effect	
	– Explanation of the multiplier process	
	– Aided with a circular flow and examples (using a graph and illustration)	**HOT QUESTION: What is the effect of the marginal propensity to consume (mpc) and marginal propensity to save (mps) on the multiplier (1/1-mpc or 1/mps)?**
	– Application of basic formulae	
		• Link the multiplier to the circular flow model
		HOT QUESTION: Why is the value of the multiplier in reality a small figure?

Make mobile notes (see instructions on page xiv) to learn the meanings of these basic concepts.

1.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide. Understand these concepts well.

Term	Definition
Base year	A year with very small price changes or price fluctuations. The current base year used by the Reserve Bank is 2005
Basic prices (bp)	Used when GDP is calculated according to the production method and represents the production costs of firms
Capital market	Market for long-term financial instruments, for example, bonds, shares
Circular flow model	Continuous flow of spending, production and income between different sectors
Closed economy	An economy that has no foreign sector as a participator
Consumption (C)	Consumption spending by the population
Domestic figures (GDP)	Value of all final goods and services produced within the borders of a country for a specific period
Economic equilibrium	The economy is in equilibrium if leakages are equal to injections: **L = J or S + T + M = I + G + X**
Expenditure method	When the national accountants add together the spending of the four major sectors of the economy: **C + G + I + (X – M)**
Exports (X)	Goods and services produced locally and then sold for consumption outside the borders of the country
Factor market	Market where factors of production are traded, e.g. labour market
Factor cost/Factor prices	These terms can be used interchangeably and refer to the cost of or price paid for the factors of production (land, labour, capital and entrepreneurship) used by firms. [Note that the term factor income may also be used]
Financial market	The market where both short- and long-term financial assets are traded
Financial sector	Those financial institutions that are not directly involved in the production of goods and services, e.g. banks, insurance companies, pension funds and the JSE
Foreign exchange market	The market in which one currency can be traded for another, e.g. rands for dollars
Goods market	Market where goods and services are traded, e.g. cars, milk (also known as Product market)
Government (G)	The expenditure of the government sector
Imports (M)	Goods and services produced in other countries and purchased by local firms or households. Imports can also be represented by "Z"

Term	Definition
Income method	Gross Domestic Income is derived by adding all income earned by the owners of the factors of production – GDP(I)
Injections (J)	The introduction of additional money into the economy by investment (I), government (G), and payments for exports (X)
Investments (I)	Spending by firms on capital goods
Leakages (L)	Money withdrawn from the circular flow, e.g through savings (S), taxes (T) and import expenditure (M)
Marginal propensity to consume (mpc)	The **marginal propensity to consume** (mpc) indicates that, as **disposable income increases**, an increase in personal consumer spending (consumption) occurs. For example, a marginal propensity to consume of 0.65 indicates that for every extra rand earned, the household will spend 65 cents and save 35 cents
Market price (mp)	Prices actually paid by consumers for goods and services plus all taxes less subsidies. Calculated according to the expenditure method
Money flow	The flow of income and expenditure between the participants in the circular flow
Money market	The short-term and very short-term market for savings and loans
Multiplier	A small initial increase in spending produces a proportionately larger increase in aggregate national income
National figures (GNP)	Value of all final goods and services produced by the permanent citizens of the country for a specific period
Net figures	Net indicates that some amount has been taken away, e.g. net exports reflects the value of exports less imports
Open economy	An economy that trades with the foreign sector
Production method	The adding of final values of all goods and services calculated as gross value added – GDP(P)
Real flow	The flow of goods and services between the participants in the circular flow
Savings (S)	Income that is not consumed
Subsidies on production	Refers to subsidies that are not linked to specific goods or services, e.g. subsidy made on employment
Subsidies on products	Financial incentives to help struggling industries produce, as well as direct subsidies payable per unit exported to encourage exports (e.g. government subsidy on bread)
Taxes (T)	Compulsory payments made by private individuals or business enterprises to the government sector with no direct benefit
Taxes on production	Refer to taxes on production not linked to a specific good or service (e.g. tax on land and buildings)
Taxes on products	Taxes that are payable per unit of some good or service (e.g. VAT, import duties)

Learn these well.

1.2 The open economy circular flow model

Description

- The circular-flow model of the economy is a simplification showing how the economy works and the relationship between income, production and spending in the economy as a whole.
- The circular-flow model of an open economy shows the workings of an economy that is open to foreign trade.
- It is different to a closed economy because it includes the foreign sector.

1.2.1 Four sector diagram
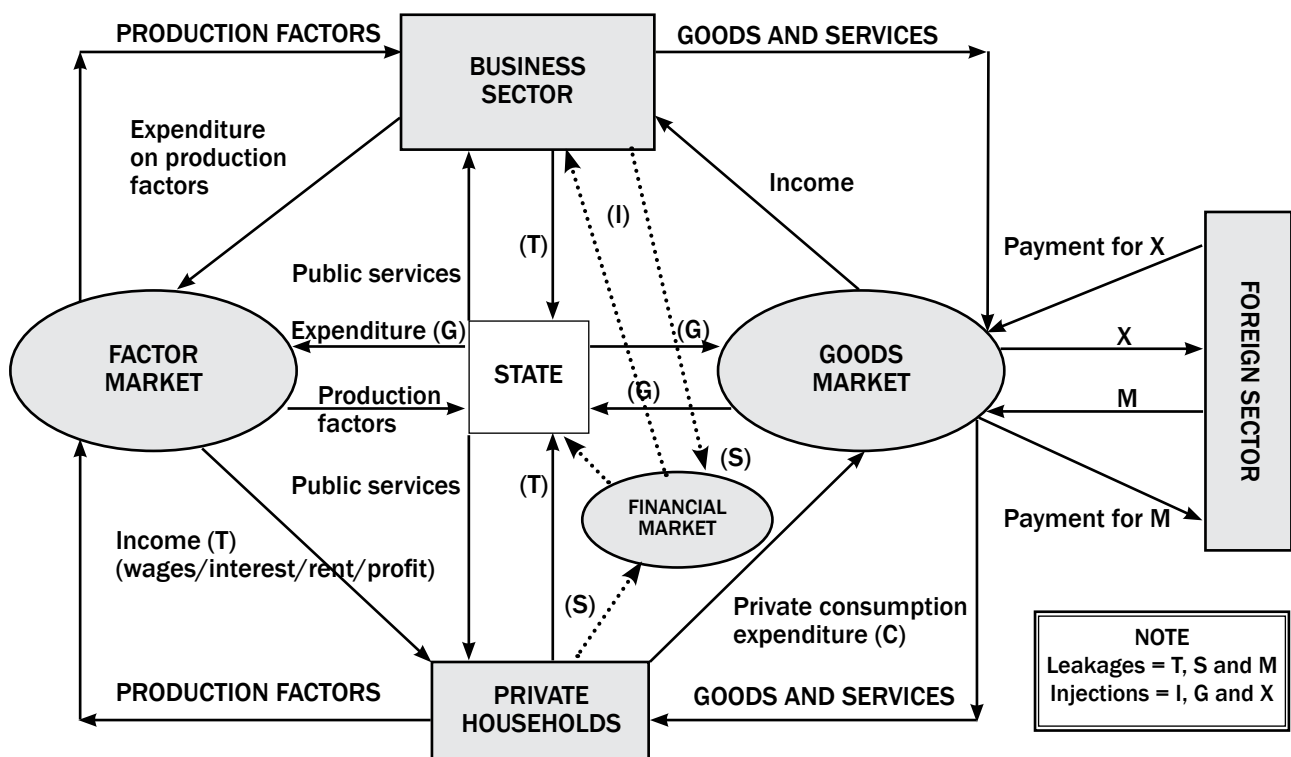
Figure 1.1 An open economy circular flow model

1.2.2 Participants
Household sector

- Households are the major consumers of economic goods and services – they use their income to buy from firms.
- Households are the primary economic participants because they are the owners of the four factors of production.
- Households sell factors of production in the factor market to firms.
- Households receive a remuneration from the firms in the form of wages, rent, interest and profit.

NB

You must be able to draw a detailed diagram of a circular flow model. Figure 1.1 is a typical example of an open economy circular flow model.

Firms/business sector
- Firms purchase the factors of production from the household in the factor market.
- Firms use the factors of production to produce goods and services.
- Businesses sell goods and services to households, government and the foreign sector.
- Businesses receive an income from the other three participants (households, government and the foreign sector).

Households = consumers
Firms = suppliers

The state/public sector
- This refers to local, regional and national government.
- The state provides the households and businesses with public goods and services.
- The state receives taxes from households, e.g. income tax.
- The state receives taxes from the business sector, e.g. company tax.
- The state spends money in the economy. (G)

Do you know the difference between an open economy and a closed economy?

Foreign sector
- There is a flow of goods or imports that flow from the foreign sector and are paid for by the individual households, businesses and the public sector.
- These imports can be seen as expenditure by individual households, businesses and public sector. (A monetary outflow.)
- There is also a flow of goods and services to the foreign sector from businesses (exports).
- These exports will result in an income for individual households, businesses and public sector. (A monetary inflow.)

Interaction between participants
- Households provide production factors to producers (firms).
- Households receive an income (Y) in return – rent, wages, interest and profits.
- Households purchase goods and services from firms.
- Firms receive income from sales revenue.
- Households and firms purchase goods and services from the foreign sector as imports (M).
- The foreign businesses receive money from firms and households.
- Firms sell goods and services to the foreign sectors, and this is called exports (X).
- Households and firms pay taxes to the government. (T)
- The government provides public goods and services to households and firms.
- The unexhausted (unspent) part of the household and firms' income earned is saved in the financial sector of the economy. (S)
- The money invested by firms and households is known as savings (S).
- The funds received by the financial sector are used by firms/businesses to purchase infrastructure for the production of goods and services.
- This flow of money from the financial sector for use by firms is known as investment (I).

1.2.3 Real and money flow

- **Real flow:** Factors of production flow from the owners (households) to producers via the factor markets. Goods and services flow from the producers via the goods markets to households and other users of goods and services. Factors of production and goods and services flow from foreign countries to South Africa (imports). Factors of production and goods and services flow from South Africa to foreign countries (exports).
- **Money flow:** Factor remuneration represents the expenditure of producers and the income of households (wages, rent, interest and profit). On the other hand, consumption expenditure represents the expenditure of households and the income of producers.

1.2.4 Leakages and injections

Leakages refer to the outflow of money from the economy.

The following are leakages or withdrawals from the circular flow:
- Savings (S)
- Taxation (T)
- Payment for Imports (M)

> *Leakages is when the economy gets weaker. Injection is when the economy gets stronger.*

In other words:						
L	=	S	+	T	+	M
Leakages	=	Savings	+	Taxes	+	Import expenditure

Injections refer to an inflow of money into the economy. The following are injections (additions to) the circular flow:
- Investment (I)
- Government expenditure (G)
- Payments for exports (X)

In other words:						
J	=	I	+	G	+	X
Injections	=	Investments	+	Government expenditure	+	Export Income

1.2.5 Equations

Equilibrium

- The economy is in equilibrium when leakages are equal to injections.
- In other words

$$L = J$$

$$S + T + M \ = \ G + I + X$$

Disequilibrium

The economy is in disequilibrium when:
- Leakages are more than Injections.
- Injections are more than Leakages.

Restoring the equilibrium causes changes to national income

National Income increases when Injections are more than Leakages

J > L

G + I + X > S + T + M

- The amounts of injections which exceed leakages contribute to additional demand.
- This additional demand must be satisfied.
- This causes an increase in the production of goods and services.

National Income decreases when Injections are less than Leakages

J < L

I + G + X < S + T + M

- The amount by which leakages exceed the injections contributes to a decreased demand.
  J < L
  Demand for goods and services drop.
- Less goods and services are produced.
- Less income in an economy.

Mathematical and Graph Presentation
- Income (Y) is equal to Expenditure (E)

In other words:
Y = E
Y = C + G + I + (X − M) = E = C + G + I + (X − M)

Mathematical Calculation

Imports	R40 million
Investment Spending	R180 million
Consumption Spending	R 110 million
Exports	R 25 million
Government Spending	R110 million

The Formula to calculate the Aggregate Income in the economy:
$Y = C + I + G + (X – M)$

Calculation of the Aggregate Income in the economy.
$Y = C + I + G + (X – M)$
$Y = $ R110 million $+$ R180 million $+$ R110 million $+ ($R25 million $–$ R40 million$)$
$Y = $ R385 million

Graphical Presentation
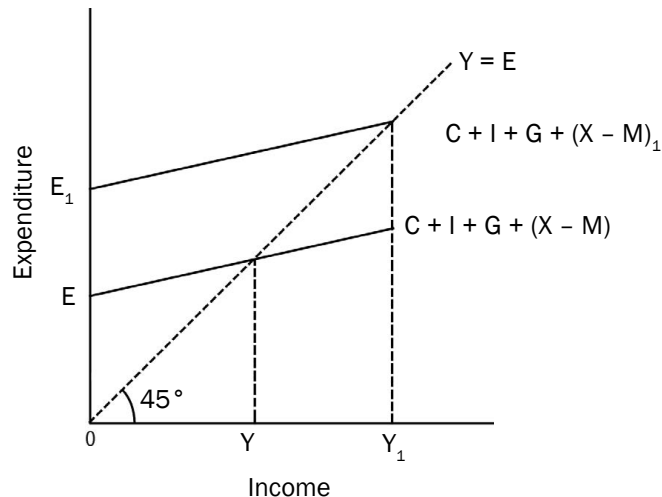
Figure 1.2: Expenditure and income

- Expenditure is (E) and it is shown on the Vertical axis.
- Income is (Y) and it is shown on the Horizontal axis.
- $E = Y$ and it is represented by a 45° line.
- It halves the 90° angle into two equal portions of 45°.

- Aggregate Expenditure (AE) $= C + I + G + (X – M)$
- This curve shows the amount which consumers, producers, government and the foreign sector plan to spend at every level of income.
- It also equals aggregate demand.

- The curve slopes upwards and to the right.
- At an income of Y the AE intersects the vertical axis at E.
- Assume planned AE increases to E_1.
- This means more money is injected into the economy.
- This causes an increase in Y to Y_1.

When E increases it means more goods and services are being bought. This is good for the economy.

1.2.6 Markets

MARKETS				
Goods/Product markets	**Factor markets**	**Money markets**	**Capital markets**	**Foreign Exchange markets**
• These are markets for consumer goods and services. • Buying and selling of goods that are produced in markets. • E.g. Durable consumer goods. • Semi-durable consumer goods. • Non-Durable consumer goods. • Services	• Factors of production are traded on these markets. • Natural resources, Labour, Capital, and Entrepreneurship are traded in this market.	• Short term loans and very short term funds are saved and borrowed by consumers and business enterprises. • Banks, Insurance companies are examples. • Bank debentures, treasury bills, government bonds are traded.	• Long term funds are borrowed and saved by consumers and business enterprises. • E.g. Mortgage bond. • The Johannesburg Stock exchange is a key institution in the capital market. • Shares are traded.	• Businesses buy foreign currency to pay for imported goods and services. • In S.A these transactions occur in banks. • The most important foreign exchange markets are in London, New York and Tokyo. • The S.A Rand is traded freely in these markets. • E.g. It is when a person buys travelers cheques to travel abroad.

FINANCIAL MARKETS (spanning Money markets, Capital markets)

Activity 1

Study the diagram below and answer the questions that follow:
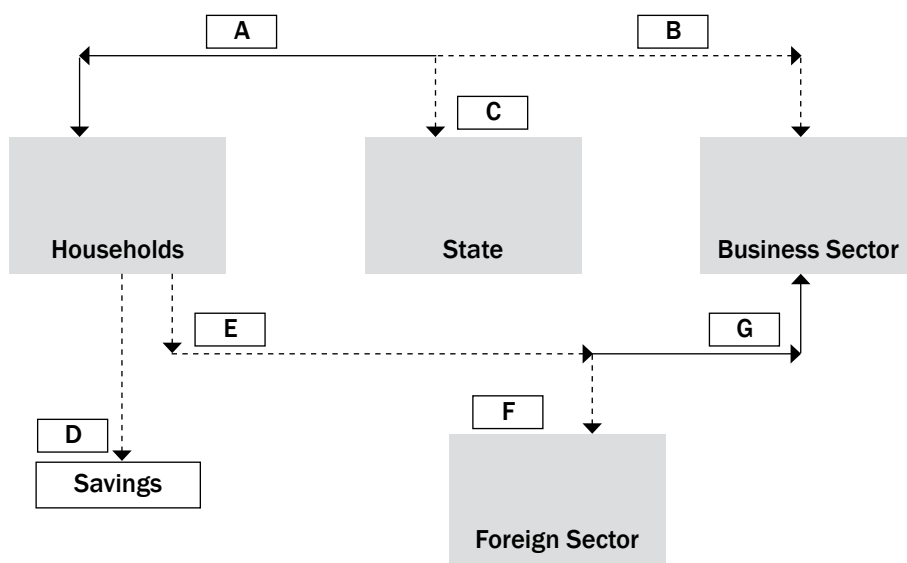
1.1 Use the information below and calculate the values A – G: (7)

Total production	R25 000	Income Taxation	R 5 000
Savings	R4 000	Imports	R 3 700

1.2 Explain the impact of an increase in income taxes on the level of production. (3)

1.3 Calculate the total leakages (L) in the above diagram. (4)

1.4 Give the identity (equation) used to represent GDP in an open economy. (2)

1.5 If a country has a marginal propensity to consume of 0.1, calculate the value of the multiplier. (4)

[20]

Answers to activity 1

1.1 A – R20 000✓
  B – R25 000✓
  C – R5 000✓
  D – R4 000✓
  E – R16 000✓
  F – R3 700✓
  G – R12 300✓ (7)

1.2 Leads to a decline in production✓✓✓ (3)

1.3 S + T + M✓
  R4 000 + R5 000 + R3 700✓
  R12 700✓✓ (4)

1.4 C + G + I + (X – M)✓✓ (2)

1.5 M $= 1/(1 - mpc)$✓
  $= 1/(1 - 0,1)$✓
  $= 1/0.9$✓
  $= 1.1$✓ (4)

[20]

1.3 National account aggregates

1.3.1 Deriving national account aggregates

The national account aggregates are methods that are used to determine the value of economic activity. The **production method**, **income method** and **expenditure method** are three different ways the economic activity is measured. They are all used at different times and for different purposes. Be sure you learn how to use these methods.

PRODUCTION METHOD	INCOME METHOD	EXPENDITURE METHOD
GDP	GDP	GDP
Adds final values of all goods and services produced	Adds all income earned by owners of factors of production	Adds spending of four main economy sectors – consumption, government, investments and exports (minus imports)

The production (output value added) method

The production method is a method whereby we determine the **Gross Domestic Product at basic prices by adding the final values of all goods and services** produced in the primary, secondary and tertiary sectors.

In the national accounts Gross Domestic Product at basic prices is usually referred to as Gross Value Added (GVA) at basic prices.

Table 1.3.1 shows the GDP in the different sectors of the economy for 2005–2012 in (R millions).

Value added (GVA)	2005	2007	2009	2011	2012
1. Primary sector	143 394	210 803	260 176	321 229	335 409
2. Secondary sector	330 669	403 129	478 627	508 953	542 821
3. Tertiary sector	927 004	1 178 144	1 439 517	1 791 197	1 956 857
4. **Gross value added at basic prices**	1 401 067	1 792 076	2 178 320	2 621 379	2 835 087
4.1 Plus – taxes on products	175 667	230 000	237 117	311 033	338 792
4.2 Less – subsidies on products	5 652	5 891	9 036	14 873	18 684
5. **Gross domestic product at market prices**	1 571 082	2 016 185	2 406 401	2 917 539	3 155 195

Table 1.3.1: GDP by economic sector for 2005–2012   *Source: SARB Quarterly bulletin (September 2013)*

NB If we merely add up the market values of all outputs, we obtain a total greatly in excess of the value of the economy's actual output. Such a calculation would lead to double counting or multiple counting. So, to solve the problem we use 'value added'.

Activity 2

Study the following data and answer the question that follows:

> Compensation of employees R1 086 907; Final consumption expenditure by households R1 472 824; Net operating surplus R728 426; Final consumption expenditure by government R504 169; Taxes on products R245 198; Subsidies on products R3 113; Taxes on production R38 173; Subsidies on production R 5 092; Gross capital formation R467 878; Exports of goods and services R657 113; Imports of goods and services R667 740; Consumption of fixed capital R332 824; Primary sector R278 518; Secondary sector R466 749; Tertiary sector R1 435 971.

1. Determine the gross domestic product at market prices according to the production method. **[10]**

Answer to activity 2

1.

Primary sector	R 278 518✓
Secondary sector	R 466 749✓
Tertiary sector	R1 435 971✓
Gross value added at basic prices ✓	2 181 238✓✓
Plus taxes on products	R 245 198 ✓
Less subsidies on products	R 3 113 ✓
Gross domestic product @ market price	R2 423 323✓✓

[10]

The income method

The income method is a method whereby we determine the gross domestic product – **GDP at factor prices (factor cost) by adding all the income earned by the owners of the factors of production (gross domestic income).**

In the national accounts this is referred to as Gross Value Added at factor cost.

Table 1.3.2 Indicates the gross domestic income for the South African economy for 2005–2011 in (R millions).

National income or Gross Value added at factor cost (rbn)	2005	2007	2009	2011	2012
1. Compensation of employees	699 018	882 379	1 081 640	1 330 315	1 447 429
2. Net operating surplus	485 761	629 116	736 427	874 877	942 903
3. Consumption of fixed capital	187 790	252 595	332 333	375 982	404 947
4. Gross value added @ factor cost	**1 372 569**	**1 764 090**	**2 150 400**	**2 581 174**	**2 795 279**
5. Other taxes on production	32 927	35 374	40 898	51 525	54 166
6. LESS other subsidies on production	4 421	7 388	12 978	11 320	14 358
7. Gross value added @ basic prices	**1 401 067**	**1 792 076**	**2 178 320**	**2 621 379**	**2 835 087**
8. Taxes on products	175 667	230 000	237 117	311 033	338 792
9. LESS subsidies on products	5 652	5 891	9 036	14 873	18 684
10. Gross domestic product @ market prices (GDI)	**1 571 082**	**2 016 185**	**2 406 401**	**2 917 539**	**31 155 195**

Table 1.3.2: South African GDP (I) for 2005–2012   *Source: SARB Quarterly Bulletin (September 2013)*

Activity 3

Refer to Table 1.3.2 (income method) and answer the following questions:

1. Which financial institution is responsible for the recording and publishing of GDP figures in South Africa? (2)
2. Explain the concept 'subsidies on products'. (3)
3. Give TWO examples of taxes on products. (4)
4. Calculate the consumption of fixed capital in 2009 as a percentage of GDP at market price. Show all calculations. (4)
5. What is the difference between 2007 and 2011 concerning the GVA @ factor cost? (2)

Answers to activity 3

1. SARB ✓✓
2. Direct payments by government✓ to the producer✓ to decrease price of a product, e.g. government subsidy on bread.✓
3. VAT✓✓ Import duties✓✓
4. 332 584/2 398 152 × 100% ✓✓ = 13.9%✓✓
5. 2 631 227 – 1 764 090 = 1 258 658✓✓

The expenditure method

The expenditure method is a method whereby we determine the gross domestic product – **GDP – at market prices by adding the spending of the four main sectors of the economy** – households (C), government (G), businesses (I) and foreign sector (X – M).

Differentiate between GDE and Expenditure on GDP: GDE = C + I + G

Expenditure on GDP = C + I + G + (X – M)

Table 1.3.3 shows total spending on GDP at market prices for 2005–2012 (in R millions).

> **NB**
>
> Table 1.3.3 shows that South Africa imported more goods and services than it exported in 2005. This caused a leakage from the circular flow to the value of about –R7 390 billion in 2005.

Gross domestic expenditure and GDP at market prices (Rbn)	2005	2007	2009	2011	2012
1. Final consumption expenditure by households	990 773	1 264 726	1 460 764	1 743 989	1 907 247
2. Final consumption expenditure by government	305 733	380 004	507 330	635 019	707 031
3. Gross capital formation	282 130	428 231	470 298	568 875	612 551
4. Residual items	–164	–1 618	–10 857	–12 329	24 585
5. Gross domestic expenditure	**1 578 472**	**2 071 343**	**2 427 517**	**2 935 554**	**3 251 414**
6. Exports of goods and services	430 169	634 626	657 192	854 343	891 562
7. Imports of goods and services	437 559	689 784	678 308	872 358	987 781
8. Expenditure on gross Domestic product @ market prices	**1 571 082**	**2 016 185**	**2 406 401**	**2 917 539**	**3 155 195**

Source: SARB quarterly bulletin (September 2013)

Table 1.3.3: Total spending on GDP at market prices for 2005-2012

1.3.2 National Account Conversions

- All countries use national account figures
- **South Africa uses the SYSTEM OF NATIONAL ACCOUNTS (SNA) prescribed by the United Nations.**
- GDP, GDE, and GDI have a great deal to do with the prices we use such as nominal and real prices, prices before or after taxes.
- Indirect taxes and subsidies are the most important determinants of the end values of the circular flow aggregates.

Factor Cost
- Factor cost is used with the income method of measuring economic activity.
- GDP at factor cost – other taxes on production – other subsidies on production = GDP at basic prices.

Basic Prices
- Used with the production method.
- Includes taxes on production and excludes subsidies on production.
- Taxes on production are payroll taxes (SITE and PAYE), recurring taxes on land & buildings, business licenses.
- Subsidies on production include employment subsidies and subsidies paid to prevent pollution.

Market prices
- Used with the expenditure method.
- Conversion of values from:
  - **Basic prices to market prices:**
    GDP at basic prices + taxes on products – subsidies on products = GDP at market prices.
  - **Factor cost to market prices:**
    GDP at factor cost + other taxes on production – subsidies on production = GDP at basic prices + taxes on products – subsidies on products = GDP at market prices.
- Taxes on products are payable per unit, e.g. VAT.
- Subsidies on products include direct subsidies paid per unit.

Net figures
Net operating surplus = surplus after taxes

Net income = income after taxes

Net fixed capital formation = After consumption of fixed capital (depreciation)

Net exports = exports – imports

GDP: Domestic production includes foreigners operating in South Africa.

GNP: Only includes the production/income of South Africans.

Conversion of Domestic to National figures
Domestic figures (GDP) relate to the income and production happening within the borders of the country.

National figures (GNP) relate to the income or production by the citizens of the country.

E.g.

	R Billions
GDP at market prices	1 523
Plus: Factor income earned abroad by South Africans	29
Less: Factor income earned in South Africa by foreigners	60
GNI at market prices	1 492

Nominal figures vs Real figures

Nominal figures
- It is also known as market or money value.
- It is also known as national product at current prices.
- Nominal value of production is calculated by multiplying the volume of the final goods and services by their prices.
- Inflation has not yet been taken into consideration.

Real figures
- It is also known as national product at constant prices.
- The rate of inflation as expressed by the consumer price index (CPI) has been taken into account.
- Real values of production are the nominal values of national product adjusted for price increase.
- Real national product is the national product expressed in prices which applied in a certain base year.

Activity 4

Two key national accounts conversions

A. How to convert domestic totals to national totals:

	2005	2007	2009	2011
GDP @ MARKET PRICES	1 571 082	2 016 185	2 398 155	2 964 261
PLUS: Primary income from the rest of the world	29 550	48 448	34 075	38 118
MINUS: Primary income to the rest of the world	60 975	117 266	87 593	104 689
GNP @ MARKET PRICES	1 539 657	1 947 367	2 344 637	2 897 690

Source: SARB Quarterly Bulletin (December 2011)

Table 1.3.4: How to convert domestic totals to national totals

PLEASE NOTE! Table 1.3.4 shows you how to apply the conversion of domestic figures to national figures and vice versa. **You must learn these conversions.**

Study Table 1.3.5 below and answer the questions that follow.

NATIONAL ACCOUNT AGGREGATES	R MILLIONS
Final consumption expenditure by households	1 473 490
Final consumption expenditure by government	505 040
Gross capital formation	467 878
Residual item	–18 092
Gross Domestic Expenditure (GDE)	**2 428 316**
Export of goods and services	657 113
Import of goods and services	677 740
Expenditure on GDP at market prices	**A**

Source: Quarterly Bulletin, SARB (June 2010)

Table 1.3.5: National account aggregates

1. Explain the concept gross capital formation. (2)
2. Calculate the value of A. Show all calculations. (4)
3. Differentiate between GVA at basic prices and Expenditure on GDP at market price. (3)

[9]

Answers to activity 4

1. Expenditure on assets used repeatedly in the process of production ✓/Increase in the stock of capital ✓ (2)
2. GDE = 2 428 316 ✓
    + Exports = 657 113 ✓
    – Imports = 677 740 ✓
    R2 407 689m ✓ (4)
3. GVA at basic prices is calculated using the production method and is usually less than Expenditure on GDP at market prices.✓✓
    To convert GVA at basic prices to Expenditure on GDP at market prices; subtract subsidies on products; add indirect taxes on products.✓ (3)

[9]

B. How to convert GDP at factor cost to GDP at basic prices or market prices:

GDP @ factor cost to GDP at basic prices, or GDP at market prices:

GDP at **basic price**   = GDP @ factor cost
                             + tax on production
                             – subsidies on production

GDP at **market price** = GDP at basic price
                             + tax on products
                             – subsidies on products

1.4 The Multiplier

- The multiplier effect is the process whereby an initial change in **spending changes** the level of output and income by more than the initial change in spending.
- The formulae to calculate the value of the multiplier (M) is:

$$M = \frac{1}{1 - mpc} \quad OR \quad \frac{1}{mps}$$

The multiplier in a two sector model

The multiplier is derived from the marginal propensity to consume (mpc)

- The size of the multiplier depends on the proportion of any increase in income that is spent.
- The larger the mpc the bigger the multiplier and the smaller the mpc the smaller the multiplier.
- It is the money that stays in the economy.
  E.g.
  - Y = R100 000
  - S = R40 000 = 40%   0.4
  - E = R60 000 = 60%   0.6
- **Marginal Propensity to consume   = 0.6 (mpc)**
- **Marginal propensity to save   = 0.4 (mps)**

The total of the mpc + mps is always = 1 (one)

FORMULA to calculate the Multiplier:

$$\alpha = \frac{1}{1 - mpc}$$

$$\alpha = \frac{1}{1 - mpc} = \frac{1}{1 - 0.6} = \frac{1}{0.4}$$

= 2½ (Multiplier)

The multiplier in a four sector circular flow model

- The following leakages are found
  - mps = marginal propensity to save
  - mrt = marginal rate of taxation
  - mpm = marginal propensity to import

The multiplier in a graph
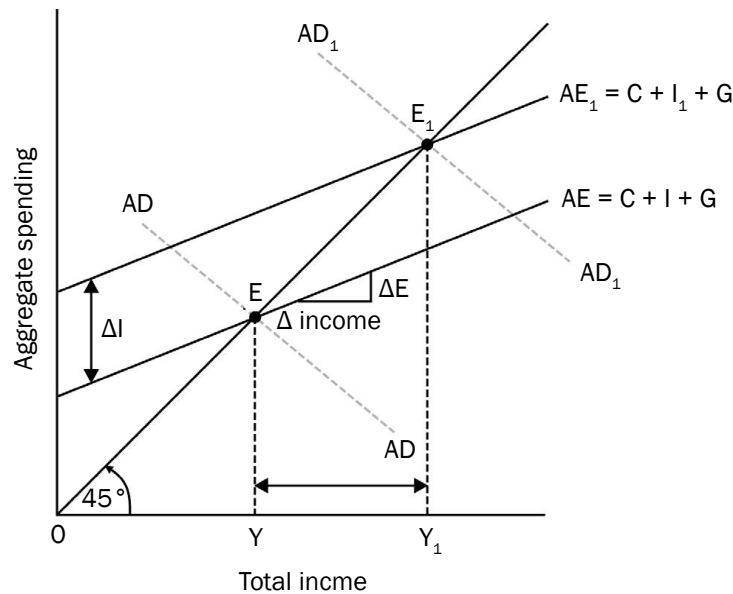
Figure 1.4.1: An increase in aggregate expenditure

Use the following formula to calculate the multiplier

$$M = \frac{\Delta Y}{\Delta I}$$

- I = R40 000 m and it increases to R50 000 m
- Δ I = R10 000 m : in other word investment in infrastructure and development and building of houses
- Y = R100 000 m increases to R125 000 m
- **ΔY = R25 000 m**

$$M = \frac{\Delta Y}{\Delta I}$$

$$\frac{R25\ 000}{R10\ 000} = 2.5 = 2\frac{1}{2}$$

- In the above sketch:
  - E = Original equilibrium.
  - Y = Original income.
  - Change in investment spending is added.
  - The AE curve (Aggregate expenditure) shifts upwards to AE_1.
  - Total spending at each level of income (Y) increases to Y_1.
  - Planned spending determines aggregate expenditure. Aggregate Demand increases to AD_1.
  - The new equilibrium position is at E_1.
  - The multiplier effect shows that the increase in Y (ΔY) is greater than the change in I (ΔI).

- National Income changes when:
  - Total spending ≠ to Production
  - Total Demand ≠ to Total supply
  - Planned leakages ≠ to planned Injections

Explain the multiplier effect

- The multiplier relates to how much national income changes as a result of an injection or withdrawal.
- Assume an increase in injections into the economy (investment, government spending or exports), which would lead to a proportionate increase in national income.
- The extra spending would have a knock-on effect and create even more spending.
- The size of the multiplier will depend on the level of leakages.
- (E.g.) assume firms increase investment spending by R1000. This is done by ordering capital goods from domestic firms to the value of R1000.
- Initially total spending has increased by R1000. Total production has increased by R1000, which also leads to an increase in R1000 in income. The increase in spending = the increase in production which = an increase in income.
- But when households earn income (R1000) leakages can occur, through income tax, savings and spending on imports.
- If this amounts to R300, then spending on domestic goods will increase by R700. At this stage the multiplier starts to kick in.

Application

Keynesian approach

1. Keynes argues that if the government wants the economy to grow, they can increase (G). Increase (G) and finance it with loans.
2. They can decrease taxation, put more money in the pockets of the consumer.
3. The consumer spends this extra money, aggregate demand will increase, production will increase and employment will increase.
4. Government can decrease company taxes and this can lead to greater investment by businesses (I).

John Keynes was a famous economist who believed that an economy needs to spend in order to grow.
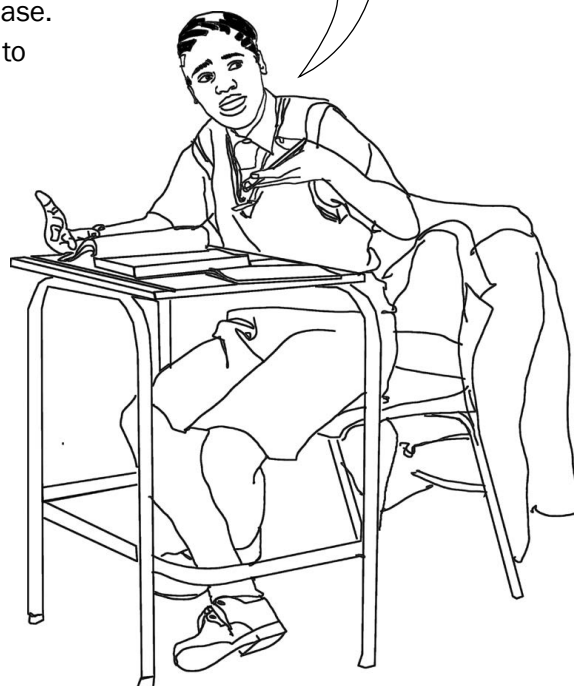
Activity 5

Study the graph below of the Keynesian model in a two-sector economy where the consumption function is given by $C = c_0 + c(Y)$ and answer the questions that follow.
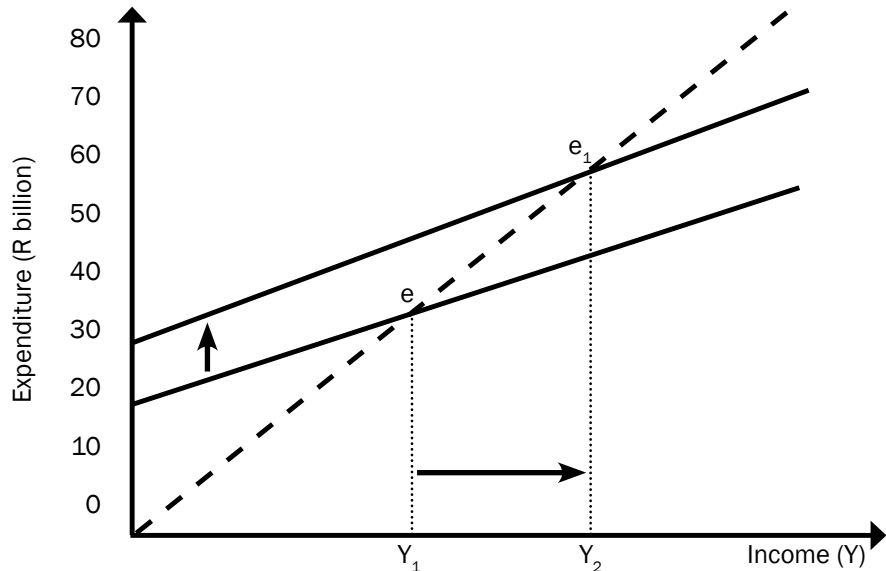
1. Define the term multiplier. (3)
2. With reference to the graph, name the TWO sectors involved in deriving the macro-economic multiplier. (4)
3. Indicate what is represented by the dotted line. (2)
4. What is the value of autonomous consumption for the original consumption function? (2)
5. Suppose the marginal propensity to save (MPS) = 0.4. Use the multiplier formula to calculate the eventual change in aggregate income, if there was an injection of R10 billion into the economy. Show ALL the calculations. (6)
6. Describe the relationship between the mpc and the multiplier. (3)
   [20]

hint Determine the size of the multiplier first.

Answers to activity 5

1. The multiplier shows how an increase in spending (injection) produces a more than proportional increase in national income ✓✓✓ (3)
2. Household ✓✓ Business ✓✓ (4)
3. Indicates all points where income = expenditure / 45° line / Keynesian equilibrium ✓✓ (2)
4. 20 bn ✓✓ (2)
5. $M = \dfrac{1}{\text{mps}}$ ✓ $= \dfrac{1}{0.4}$ ✓ $= 2.5$ ✓

   2.5 x 10 bn P = 25 bn. ✓✓✓ (6)
6. The larger the marginal propensity to consume (mpc) the bigger the multiplier and vice versa ✓✓✓ (3)
   [20]

Keep going!

Chapter 2

Business cycles and forecasting

Business cycles refer to fluctuations in economic activity or production over several months or years. They seem to indicate a long-term trend, typically involving shifts over time between periods of rapid economic growth (expansion or boom), and periods of stagnation or decline (contraction or recession).

Forecasting relates to the economic indicators used to forecast the trends in the business cycle.

Overview

TOPIC	CONTENT	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES
2. Business cycles	**Analyse and explain business cycles, show how they are used in forecasting** • **The composition and features of business cycles** – Definition – The nature of business cycles – Demonstration/diagram – The real (actual) business cycle • **Explanations** – **Exogenous explanation** – **Endogenous explanation** – **Types of business cycles** • **Government policy** – **Monetary policy (expansionary and contractionary policies)** – **Fiscal policy (expansionary and contractionary policies)** – **Combination of monetary and fiscal policy** • **The new economic paradigm (smoothing of cycles)** – **Definition** – **Demand side policy** – Inflation and Unemployment – **Supply side policy** – Reduction in costs – Improvement in the efficiency of inputs – Improvement in the efficiency of markets • **Features underpinning forecasting with regard to business cycles** – **Indicators** – Leading – Coincidence – Lagging – Composite – **Length of a cycle** – **Amplitude** – **The trend line** – **Extrapolation** – **Moving averages**	• An in-depth discussion is required • Define the concept • Explain the nature of business cycles • Draw/illustrate a typical business cycle • Use a diagram and discuss the different phases in a business cycle • Only a broad outline of the real business cycle is required • Discuss the Exogenous explanation • Discuss the Endogenous explanation • Only a broad outline of the types of business cycles is required **HOT QUESTION: Compare and contrast endogenous and exogenous explanations of business cycles** Explain the monetary and fiscal policies used by government to smooth out business cycles **HOT QUESTION: Explain how fiscal and monetary policy might be used to stimulate economic activity during a recession** • Define 'The new economic paradigm' • Explain the meaning of 'The smoothing of cycles' • Discuss demand and supply side policies with the aid of graphs **HOT QUESTION: Explain how supply side and demand side policies would be used to stimulate economic activity in the smoothing of cycles** • Explain the relevant concepts • Discuss in detail the features underpinning forecasting • Make use of a diagram and discuss the cycle length, amplitude and the trend line as features underpinning forecasting **HOT QUESTION: Make use of a given real business cycle diagram and explain why it serves as a forecasting model**

2.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide.

Term	Definition
Business cycle	Successive periods of growth and decline in economic activities
Depression	Economic activity is at its lowest. Deepening of the recession
Economic indicator	Used to measure trends in the economy, e.g. GDP
Peak	Point where the economic expansion is at its highest
Phillips-curve	Illustrates the relationship between unemployment and inflation
Recession	A negative economic growth for at least two successive quarters
Trough	Point where the economic contraction is at its lowest

Make mobile notes (see instructions on page xiv) to learn the meanings of these basic concepts.

2.2 The composition and features of business cycles

2.2.1 Nature of business cycles

- Changes in economic activity are recurring but never exactly the same or of the same magnitude.
- Different circumstances and expectations cause consumers and producers to respond differently to initiating forces.
- The duration and amplitude of every business cycle will be different.
- Business cycles are recognised by the following:
  - Two periods namely contraction and expansion;
  - Two turning points namely trough and peak;
  - Four phases, namely recovery, prosperity, recession and depression.

2.2.2 Demonstration/diagram of a business cycle

Figure 2.1 below shows economic activity over an extended period of time as the economy moves between periods of expansion and periods of contraction.
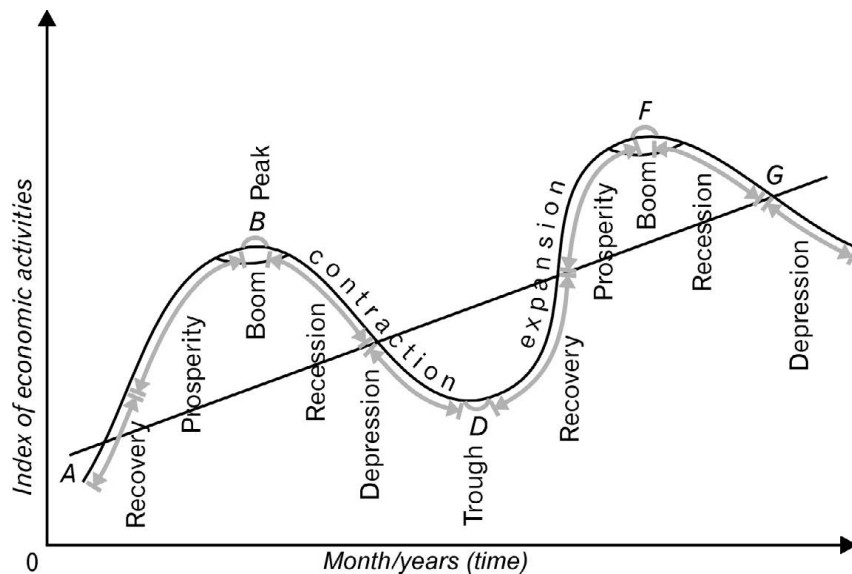
Figure 2.1 Business cycles (trend line)

As shown in Figure 2.1, economic activity clearly shows periods of contraction (**recession/depression**) and periods of expansion (**recover/prosperity**) in the economy.

- Economic activity is shown by the upward and downward movements of the curve.
- A period where there is a general increase in economic activity is known as an **upswing**.
- A period of general decline in economic activity is called a **downswing**.
- The business cycle oscillates between the upper (**peak**) and lower (**trough**) turning points along a trend line.
- The length of the business cycle is measured from **peak to peak** or from **trough to trough**.
- The entire period from the **peak to the trough** is known as the **downswing**.
- The entire period from the **trough to the peak** is known as the **upswing**.
- The period immediately before and through the upper turning point of the cycle is called the **boom**.
- The period immediately before and through the lower turning point is known as the **slump**.
- The **trend line** is the long-term average position or pattern.

2.2.3 Real (actual) business cycle

- An actual business cycle is obtained when the effects of irregular events, seasons and long-term growth trend are removed from the time series data.
- Figure 2.2 shows the real GDP of South Africa over a 12 year period displayed in a jagged diagram.

- The **length** or duration of the cycle is measured from trough to trough or peak to peak.
- The distance of the peaks and troughs from the trend line is known as the **amplitude** and shows the severity of cyclical fluctuations.
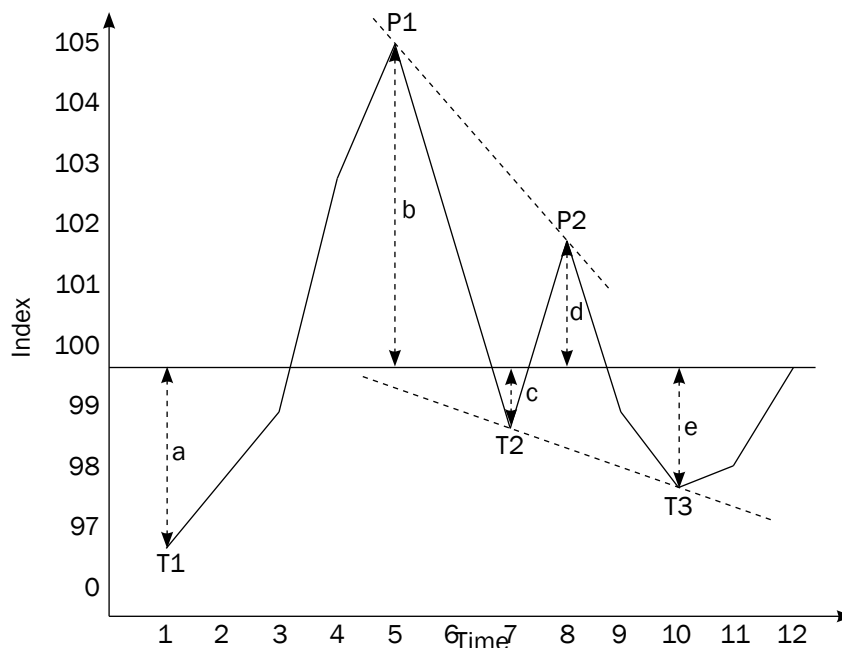
Figure 2.2 The real business cycle

- The percentage point difference of successive peaks and troughs can be calculated e.g. a + b (3 + 5 = 8) compared to b + c (5 + 1.5 = 6.5).

2.3 Explanations

There are numerous theories as to the causes of business cycles. Among these are the **monetarist approach** and the **Keynesian approach**. The government uses monetary instruments such as interest rates to mediate these business cycles.

2.3.1 The exogenous explanation

Exogenous variables are those independent factors that can influence business cycles and originate outside the economy. Some economists believe that business cycles are caused by exogenous factors such as those described below:

- The monetarists believe markets are inherently stable and disequilibrium is caused by incorrect use of policies, e.g monetary policy.
- Weather conditions and market shocks cause upswings and downswings.
- Governments should not intervene in the market.
- Sunspot theory based on the belief that increased solar radiation causes changes in weather conditions.
- Technological changes.

Exogenous includes, amongst many others, the monetarist view. Endogenous focuses mainly, but not only, on the Keynesian approach
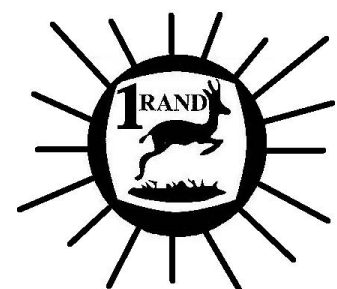
Figure 2.3 is based on the view that economics are generally stable. This is illustrated by the thick trend line representing the normal progress of a growing economy. Movements away from the trend are caused by exogenous factors, for example, inappropriate monetary policy.
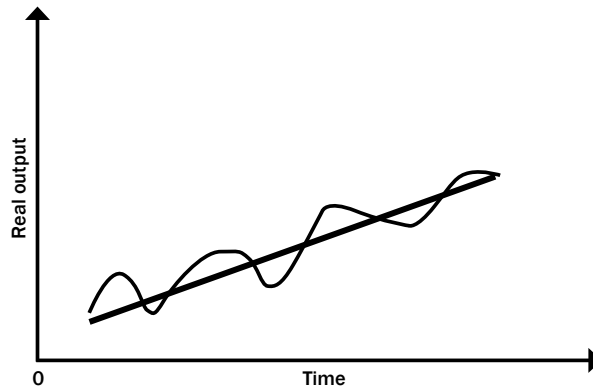
Figure 2.3 Monetarist approach

2.3.2 The endogenous explanation

Endogenous variables are dependent variables. This follows the belief that economic growth is primarily the result of endogenous and not external forces.
- This is often called the Keynesian view.
- The Keynesian approach holds the view that markets are inherently unstable and therefore government intervention may be required.
- The price mechanism fails to co-ordinate demand and supply in markets and this gives rise to upswings and downswings.
- Prices are not flexible enough (e.g. wages).
- A business cycle is an inherent feature of a market economy.
- Indirect links or mismatches between demand and supply are normal features of the economy.

Figure 2.4 helps to illustrate the Keynesian view of the business cycle. The thick cycle line indicates the endogenous nature of the business cycle, while the thinner trend line shows that the economy is inherently unstable. The argument is that business cycles are a natural part of market economies and can have a major impact on the overall performance of an economy.
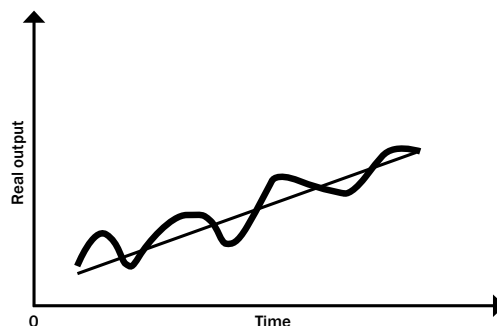
Figure 2.4 Keynesian approach

2.3.3 Types

The business cycle is one kind of cycle found in market economies. Other less obvious kinds occur less regularly:

- **Kitchen cycles:** last between 3 to 5 years caused by adapting inventory levels in businesses.
- **Jugler cycles:** last from 7 to 11 years and are caused by changes in net investments by government and businesses.
- **Kuznets cycles:** last between 15 to 20 years, caused by changes in activity in the building and construction industry.
- **Kondratieff cycles:** last longer than 50 years, caused by technological innovations, wars and discoveries of new deposits of resources e.g. gold.

2.4 Government policy

Government can use monetary and/or fiscal instruments to help stabilise business cycles, also called "fine tuning" the economy.

2.4.1 Policy instruments

MONETARY POLICY – can be defined as policies used by monetary authorities (SARB and MPC) to change the quantity of money in circulation as well as the interest rates, with the aim to stabilise prices, reach full employment and achieve high economic growth.

The size of the M3-money stock is an important determinant of the quantity of money. The following TWO theories explain changes in the quantity of money and its impact on the economy:

- The **quantity theory of money** shows how an increase in the stock of money can lead to an increase in the inflation rate and a decrease in the buying power of money.
  Quantity theory-equation:

$$\boxed{MV = PT}$$

  Where: M = Total stock of money

  V = Velocity of money

  P = Prices of goods and services

  T = Quantity goods and services

  When the stock of money (M) increases, prices (P) will rise and because production (T) cannot be increased immediately it will lead to INFLATION, assuming velocity (v) remains constant.

- The second theory links the change in deposits and the cash reserve requirement. If the amount of new deposits increase, the money multiplier kicks in:

$$\boxed{Tm = \Delta D \times 1/rd}$$

  Where: Tm = Total stock of money at the end of the process

  ΔD = The initial inflow of new money to the banks/new deposits

  Rd = Minimum cash reserve percentage kept by banks.

It can be seen that a relatively small deposit of R1 000 with a relatively small cash reserve requirement of 5% (0,05) may lead to a relatively large increase in the total stock of money.

Tm = 1 000 × 1/0,05 = 1 000 × 20 = R20 000

- Keeping the TWO theories in mind, the central bank can use the following instruments separately or jointly from its arsenal of monetary and related policy instruments in a selective or discretionary manner:

1. **Open market transactions**

   The SARB can directly increase/decrease the supply of money by buying/selling government securities in the open market.

2. **Interest rates**

   If banks experience a shortage of funds in the money market, they are accommodated by the SARB, when they are allowed to borrow money through the Repo system (Repurchase tender system) at a rate known as the repo rate. By increasing this rate, money becomes more expensive for commercial banks, who pass on the increase to their clients by increasing interest rates on loans. Loans become more expensive to the consumer and so the demand for money will decrease.

3. **Cash reserve requirements**

   The SARB is permitted by the Banks Act to occasionally change the minimum cash balances the banks are required to maintain in order to manipulate the money creation activities of the banks. See the money multiplier equation. Change the 5% to 10% and see what the effect would be on the creation of credit/money in the economy.

FISCAL POLICY – Fiscal policy = Is the process of using taxation and public expenditure to even out the swings of the business cycle. Governments, through their fiscal policy have a powerful weapon for stabilising/ironing out/smoothing of cycles, to stop peaks from ending in high inflation and troughs in too high levels of unemployment.

> While the monetary policy focuses on managing the total money supply, the fiscal policy tries to stimulate or curb the economy, by increasing or decreasing total consumption expenditure.
>
> Fiscal policy is dependent on the multiplier effect where a relatively small change in spending will cause a large change in income (GDP).

The original equilibrium situation:

Accepts that all economic activities are stable and all markets in equilibrium. Assumes the beginning of the following undesired conditions/problems:

1. **Total demand is low and unemployment is high.**

   The State can increase total demand by increasing expenditure, the multiplier will kick in. The state has THREE options:

   - **Raising government spending** (G) with borrowed money (Budget Deficit). Aggregate expenditure increases and so does demand. The economy is stimulated and employment is likely to increase.
   - **Decreasing taxes.** Consumers and producers have a larger part of their incomes available to spend on goods and services. Aggregate expenditure increases. The economy is stimulated

SARB buys bonds from ABSA → more money flows into the economy so money supply increases.

SARB sells bonds to ABSA → money flows out of the economy and money supply decreases.

and employment is likely to increase.

- **Raising government spending and simultaneously decreasing taxes.** This will have a double effect. Government spending increases and consumers and producers also have more to spend. Demand increases substantially. Employment increases.

2. **Aggregate demand is too high and leads to demand pull-inflation.**
   The state can decrease spending, decrease aggregate demand, the multiplier will kick in negatively and total spending will decrease.
   To achieve this, the government has THREE options:
   - **Cut down on government spending** (G). The unspent money is preserved. Aggregate expenditure is less and demand drops. Inflation is likely to decrease.
   - **Increasing taxes** (T). Workers pay more tax and this results in consumers having less income to spend and demand dropping. Inflation is likely to decrease.
   - **Reducing government spending (G) and simultaneously increasing taxes (T).** This will have a double effect. Government spending decreases and consumers and producers also have less to spend. Demand drops substantially. Inflation decreases.

A COMBINATION OF MONETARY AND FISCAL POLICY:
The strongest effects are obtained when a government uses these policies in combination with one another to manipulate aggregate demand.

1. **Where demand is too high, restrictive policies can be combined as follows:**
   Monetary policy:
   SARB can increase interest rates, increase reserve requirements of banks.
   plus
   Fiscal policy:
   Reduce government spending and increase taxes – budget for a surplus.

   > Doing these things simultaneously triggers negative money multiplier and a negative income multiplier, which doubles the effect of the measures.

2. **If aggregate demand is too low, expansionary policies can be combined as follows:**
   Monetary policy:
   SARB lowers interest rates and cash reserve requirement of banks.
   plus
   Fiscal policy:
   Government decreases taxes and increases spending by budgeting for a deficit.

   > A combination of the above policies will lead to a positive money multiplier and activate a positive income multiplier, which will double the effect of measures.

Restrictive policies make the economy slow down. Expansionary policies make the economy go faster (grow).
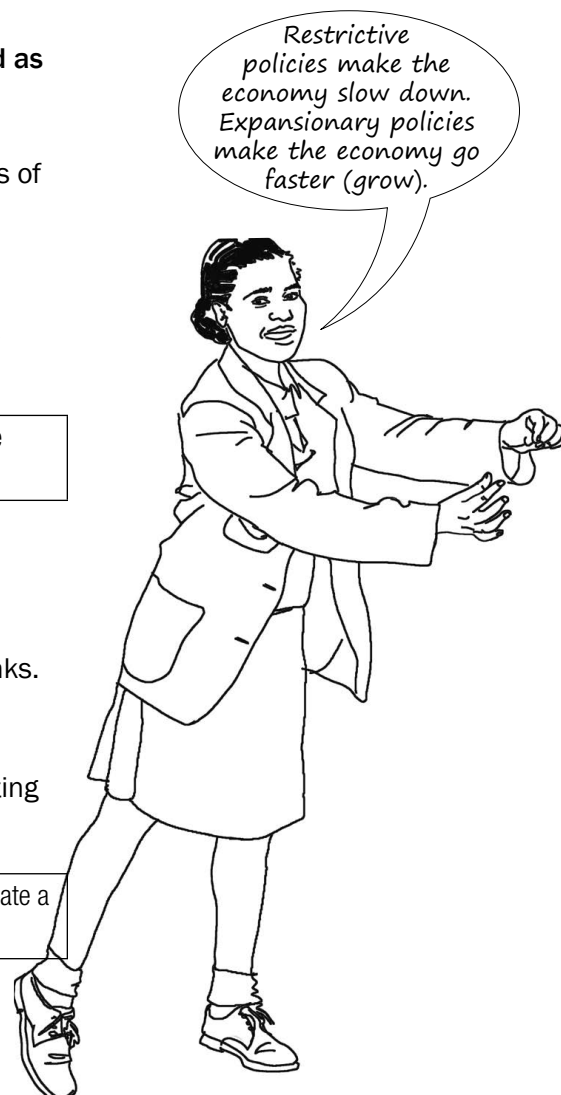
• Interest rates	I
• Cash reserve requirements	Catch
• Open market transactions	One
• Moral persuasion	More
• Exchange rate policy	Elephant
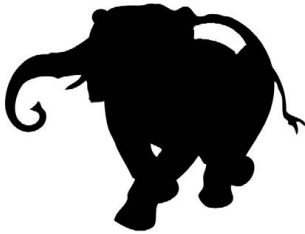
2.5 The new economic paradigm

The "new economic paradigm" discourages policy makers from using monetary and fiscal policies to fine-tune the economy, but rather encourages achieving stability through sound long-term policy decisions relating to demand and supply in an economy.

2.5.1 Demand-side policies

Demand-side policies focus on aggregate demand in the economy. When households, firms and government spend more, demand in the economy increases. This makes the economy grow but can lead to inflation.

* Inflation:
    – Aggregate demand increases more quickly than aggregate supply and this causes prices to increase.
    – If the supply does not react to the increase in demand, prices will increase.
    – This will lead to inflation (a sustained and considerable increase in the general price level).
* Unemployment:
    – Demand-side policies are effective in stimulating economic growth.
    – Economic growth can lead to an increase in the demand for labour. As a result more people will be employed and unemployment will decrease.
    – As unemployment decreases inflation is likely to increase. This relationship between unemployment and inflation is illustrated using the Phillips curve.

2.5.2 Supply-side policies

Supply-side policies include:
* **Reduction of costs of production**
    – Infrastructural services
    – Administrative costs
    – Cash incentives
* **Improving the efficiency of inputs**
    – Tax rates
    – Capital consumption
    – Human resources development
    – Free advisory services
* **Improving the efficiency of markets**
    – Deregulation
    – Competition
    – Levelling the playing field

2.6 Features underpinning forecasting with regard to business cycles

There are many economic indicators that can be used to forecast business cycles. Some of these are:

2.6.1 Leading indicators

- Leading indicators give consumers, businesses and the state a glimpse of the direction in which the economy might be heading.
- When these indicators rise, the level of economic activities will also rise a few months later.
- Examples of leading indicators are job advertising space; inventory; and sales.

2.6.2 Co-incident indicators

- Co-incident indicators move at the same time as the economy.
- They indicate the actual state of the economy.
- Examples of these indicators are value of retail sales and real GDP.

2.6.3 Lagging indicators

- Lagging indicators won't change direction until after the business cycle has changed its direction.
- Examples of these indicators are hours worked in construction and total of commercial vehicles sold.

2.6.4 Composite indicators

- It is a grouping of various indicators of the same type into a single value.
- The single figure forms the norm for a country's economic performance.

2.6.5 Trend

- The trend is the general direction of the economy.
- The trend line that rises gradually will be positively sloped in the long run. This rising line indicates a growing economy.

2.6.6 Length

- Length is measured from peak to peak or from trough to trough.
- Longer cycles show strength and shorter cycles show weakness with regard to economic activities.

2.6.7 Amplitude

- Amplitude refers to the vertical (height) difference between a trough and the next peak of a cycle.
- The larger the amplitude, the more extreme the changes that occur.

2.6.8 Extrapolation

- Extrapolation means to estimate something unknown from facts that are known. For example, extrapolations from known facts are used to predict future share prices.

2.6.9 Moving averages

- Moving avarages are used to analyse the changes in a series of data over a certain period of time.

Create a song to help you remember these seven forecasting features. Singing the words to a catchy tune over and over again will help you.

Leading indicators show us where we're heading
Lagging indicators won't change direction
Co-incident indicators, moving together

What's the **trend**? Show me the way
What's the **length**? Weak or strong today

Pump up the **amplitude** to see the difference
I need to **extrapolate** to make my predictions

Activity 1

Study Figure 2.5 below and answer the questions that follow:
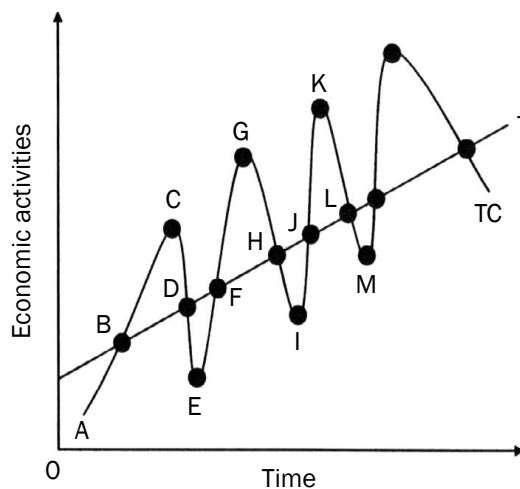
Figure 2.5 Business cycles

1. Define the term business cycle. (3)
2. Indicate which indicator is represented by T. (2)
3. What is measured by the horizontal axis? (2)
4. At which point did the economy reach a peak and a trough? (4)
5. Identify the four phases into which the business cycle is divided in the above illustration. (8)
6. How is the length measured in the above business cycle? (2)
7. Explain lagging and coincident indicators used in the forecasting of business cycles. (2 × 4) (8)
[29]

Answers to activity 1

1. Successive periods of growth and decline in economic activities✓✓✓ (3)
2. Trend line✓✓ (2)
3. Time✓✓ (2)
4. Peak – C✓✓
   Trough – E✓✓ (4)

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Answers to activity 1 (continued)

5. BC – Prosperity✓✓
    CD – Recession✓✓
    DE – Depression✓✓
    EF – Recovery✓✓ (8)
6. From C to G ✓✓ or E to I ✓✓ (2)
7. **Lagging indicators**
    These do not change direction until after the business cycle has changed its direction. ✓✓
    E.g. hours worked in construction; total number of commercial vehicles sold.✓✓
    Co-incident indicators
    These move at the same time as the economy ✓✓
    They indicate the actual state of the economy.✓✓
    E.g. value of retail sales; real GDP (8)
    [29]

</div>

Activity 2

Study the cartoon below and answer the questions that follow:

Source: Mail & Guardian, 2010

1. What is the message behind the cartoon? (2)
2. Why do you think that unemployment will not lead to an economic lift off? (2)
3. To which forecasting indicator does unemployment refer? (2)
4. How would you describe the recovery phase of a typical business cycle? (2)
    [8]

Answers to activity 2

1. Illustrate the business cycle struggling to recover due to the burden of unemployment✓✓ (2)
2. Due to a high percentage of unemployed people in South Africa✓✓ (2)
3. Co-incident✓✓ (2)
4. Economic activities start to increase✓✓ **OR**
   Exports will start to increase, resulting in an increase in production✓✓ (2)

[8]

Activity 3

Discuss the monetarist approach as a cause of business cycles. **[8]**

Answers to activity 3

- Exogenous approach ✓✓
- Believe markets are inherently stable.✓✓
- Departures from the equilibrium state are caused by factors outside of the market system.✓
- Market forces (supply and demand) kick in and bring the economy back to its natural state or equilibrium route.✓✓
- These interferences are not part of the normal forces operating in the market. ✓✓
- Governments should not interfere in the markets. ✓✓
- Major cause of economic fluctuations are inappropriate government policies ✓ undesirable increases and decreases in money supply ✓

(maximum 4 marks for examples) **[8]**

Activity 4

Discuss the trend line in the forecasting of business cycles. **[8]**

Answers to activity 4

- The trend line represents the average position of a cycle. ✓✓
- It indicates the general direction in which the economy is moving. ✓✓
- An upward trend suggests that the economy is growing. ✓✓
- The trend line usually has a positive slope, because production capacity increases over time. ✓✓
- Diagram showing trend line (see Figure 2.1 on page 26 for an example) .✓✓
- Accept any other relevant facts ✓✓ (any 4 × 2)

[8]

Keep going!

Chapter 3

The role of the public sector

The **public sector,** also known as the **state** or **government**, is responsible for providing certain goods and services to citizens. It also determines the policy regarding these goods and services at national, regional and local levels. The public sector is also involved in the delivery of social security, public facilities and policing.

Overview

TOPIC	CONTENT	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES

3. Public sector	**Evaluate the role of the public sector in the economy with special reference to its socio-economic responsibility in the South African context**
	
	• **The composition and necessity of the public sector**
	  – **Composition**
	  – **Necessity**
	    – To supply public goods
	    – To conserve resources
	    – To manage the economy
	
	• **Problems of public sector provisioning**
	  – **Accountability**
	  – **Efficiency**
	  – **Assessing needs**
	  – **Pricing policy**
	  – **Parastatals**
	  – **Privatisation/Nationalisation**
	
	• **Objectives of the public sector and its budgets**
	  – **Objectives**
	    – Economic growth
	    – Full employment
	    – Exchange rate stability
	    – Price stability
	    – Economic equity
	  – **Budgets**
	    – Medium Term Expenditure Framework (MTEF and MTBPS)
	    – The national (main), provincial and municipal budgets
	
	• **Fiscal policy (including the Laffer curve)**
	  – **Features of Fiscal Policy**
	    – Goal bound
	    – Demand based
	    – Cyclical
	  – **Composition of Fiscal Policy**
	    – Government expenditure
	    – Taxation
	    – Borrowing (State's debt)
		• Briefly describe the composition of the public sector
		
		HOT QUESTION: Illustrate the composition of the public sector by means of a diagram
		
		• Briefly discuss the necessity for the public sector
		
		HOT QUESTION: Assess the effectiveness of the public sector in supplying public goods
		
		• Discuss in detail the problems of public sector provisioning (clearly show why each of these factors contributes to poor public sector provisioning)
		• Discuss in detail the main objectives of the public sector in the economy
		
		• Supply a broad outline of the various budgets
		• Evaluate each budget within a South African context
		• Analyse budget data
		
		HOT QUESTION: Identify and explain how social rights are embedded in the budgets of the South African government
		
		• Briefly discuss the features of fiscal Policy
		• Propose five major purposes of Fiscal Policy
		• Briefly discuss the composition of the Fiscal Policy

	– **Effects of Fiscal Policy**
	  – Income distribution
	  – Consumption
	  – Price level
	  – Incentives/Disincentives :
	    – The Laffer Curve
	  – Discretion
		• Discuss in detail the effects of Fiscal Policy
		• Analyse/evaluate the effects within a South-African context
		• Draw and interpret the Laffer-Curve

	• **Reasons for Public Sector failure**
	  – **Characteristics/features**
	    – Ineffective
	    – Inefficiency
	  – **Reasons for Public Sector failure**
	  – **Management failure**
	    – Apathy
	    – Lack of motivation
	    – Bureaucracy
	    – Politicians
	    – Structural weaknesses
	    – Special interest groups
	  – **Effects of Public Sector failure**
	    – Allocation of resources
	    – Economic instability
	    – Distribution of income
	    – Social instability
		• Briefly discuss the characteristics/features of Public Sector failure
		
		• Discuss the reasons for public sector failure in detail
		• Write a proposal as to how the South African Government can avoid Public Sector failure
		
		• Give a broad outline of the effects of Public Sector failure

	Infuse where appropriate: national macro-economic policy and service delivery with regard to socio-economic rights, education, health, and the environment, and social security, convention of the rights of the child, taxation, and compensation for human rights abuses.	

3.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide.

Make mobile notes to learn these terms and definitions. Instructions for how to make mobile notes are on page xiv.

Term	Definition
The budget	A document that details expected revenue and projected expenditure
Bureaucrat	An official in a government department
Central national government	Concerned with national issues, e.g. safety and security
Collective goods	Goods provided for society as a whole. E.g. parks and public utilities. Provision of these goods gives rise to the free rider problem
Community goods	E.g. police stations. Everyone can use these whether they are prepared to pay for them or not
Demerit goods	Harmful goods, e.g. cigarettes
Deregulation	Removal of unnecessary restrictions by law
Direct taxes	Taxes that are not shifted to the end user, e.g. PAYE
Indirect taxes	Taxes levied on the sale of goods and services
Local government	Deals with local issues within a town or municipal area
Merit goods	Goods and services whose provision has benefits for the user (private) and for society, e.g. education
Monetary Policy Committee (of the Reserve Bank) (MPC)	Decides on the country's monetary policy
Medium Term Budget Policy Statement (MTBPS)	Government's statement setting out its three-year budget
Medium Term Expenditure Framework (MTEF)	Estimates income and expenditure for a three-year period
Nationalisation	Transfer of functions and ownership of entities from the private sector to the public sector
Public goods and services	Provided by the state for use by all the members of a society, e.g. public libraries
Regional government	Deals with economic and other issues specific to a region/province
Regulation	Putting laws in place to regulate activities
State Owned Enterprises (SOE)	A business owned wholly or partly by the state and run by a public authority, e.g Eskom and SAA
Value Added Tax (VAT)	An indirect tax on goods and services consumed in the economy

3.2 Composition and neccessity

3.2.1 Composition

- **National/central government**
  Concerned with national issues e.g. health, defence, education safety and security.
  Also includes non-profit organisations, e.g. SABS and CSIR.
- **Provincial/regional government**
  Concerned with the administration of the nine provinces and economic issues specific to the region.
- **Local government**
  Concerned with local issues within a town for municipal area.
  E.g. electricity delivery, libraries, traffic control and refuse removal.
- **Public corporations**
  State-owned enterprises (SOEs) that provide public goods and services, such as Eskom, Transnet and SABS.

3.2.2 Necessity of the public sector

- **To provide public goods**
  Goods and services provided by the state for use by all the members of society. Three groups can be distinguished:
  - *Community goods*
    Goods of which there is a complete supply or none, e.g. defence, police.
  - *Collective goods*
    Differ from community goods as fees, charges or tolls can be levied to exclude free-riders, e.g. beaches, drainage, parks.
  - *Merit goods*
    Goods provided by the state, because it is believed that they would be under-supplied if their provision was left entirely to market forces.
    E.g. education, health care, research.

- **To conserve resources**
  - Government has to intervene to protect the environment if the environment is exposed to insensitive and even carless use it may be damaged.
  - E.g. the oceans for fishing, the air we breathe; natural scenery.

- **To intervene in the economy**
  - Ensures a social and legislative environment.
  - Apply suitable and credible economic and development policies.
  - Promote policies that ensure equal opportunity for all members of society.
  - Limit anti-competitive behaviour.

A mnemonic can help you remember these problems:

3.3 Problems of public sector provisioning

Learn these six problems of **public sector provisioning**:

3.3.1 Accountability

- **Government** is required to make and implement policies. Accountability is underpinned by ministerial responsibilities, parliamentary questioning, treasury control and the Auditor-general.
- **Public servants** are required to give an explanation of their decisions and actions.
- **The public** holds government accountable for the effective delivery of services and the implementation of policies.

3.3.2 Efficiency

- **Efficient provisioning:** Public servants provide the public with goods and services promptly and in the desired quantity and quality.
- **Inefficient provisioning:** Public servants fail to deliver services to the public because of bureaucracy, incompetence and corruption.

3.3.3 Assessing of needs

- **Government provides** goods and services according to the needs of people. Assessing these needs is difficult.
- **Market forces** determine the price of goods and services in the private sector.
- **State enterprises** are not subjected to the forces of demand and supply.

Accountability	**A**lways
Efficiency	**E**at
Assessing of needs	**A**pples
Pricing policy	**P**ears
Parastatals	**P**eaches
Privatisation	**P**ineapples

3.3.4 Pricing policy

- **Free of charge:** Certain services are provided free of charge from taxes, e.g. public health services. (Tax revenue is used to cover the costs.)
- **Price value:** It is difficult for government to establish the correct pricing.
- **Paid services:** People pay for some services, e.g. TV licences.
- **Subsidised products:** The public pay less for goods because government subsidises (pays towards) the cost, e.g. the price of bread is subsidised by government.

3.3.5 Parastatals

- **State Owned Enterprises** (SOEs) can be created as a result of nationalisation.
- **Service provisioning:** SOEs support service delivery, e.g. Eskom, SABC and Transnet. Can lead to monopolies, high prices and inefficiency.
- **Infrastructure provisioning:** SOEs provide essential infrastructure, especially when there are insufficient funds in the private sector, e.g. the road network.
- **Limited liability:** SOEs have limited liability in South Africa because they are financially supported by government.

3.3.6 Privatisation/Nationalisation

- **Privatisation** refers to the **transfer of functions and ownership** from the public to the private sector.
- The aim of privatisation is to reduce the relative size of the public sector.
- Advantages of privatisation:
  - Privatisation stimulates growth and improves the overall efficiency and performance of the economy.
  - Privatisation provides additional funds to the government.
  - Privatisation attracts foreign investment.
- Nationalisation is the opposite of privatisation.
  - It is the process whereby the state takes control and ownership of privately-owned assets and private enterprises.
  - Some argue that the state-owned enterprises e.g. ESKOM should be privatised.

3.4 Objectives of the public sector and its budgets

3.4.1 Objectives

Economic growth

- Refers to an increase in the production of goods and services.
- Measured in terms of Real GDP.
- For economic growth to occur, the Economic growth rate must be higher than Population growth.
- Growth and development in a country benefits its citizens because it often leads to a higher standard of living.

Full employment

- It is when all the people who want to work, who are looking for work must be able to get work.
- A high level of employment is the most important economic objective of the government.
- The unemployment rate increased over the past few years.
- Informal sector activities must be promoted because it is an area where employment increases.
- GEAR as a strategy was implemented to create a positive climate that was conducive to employment creation by the private sector.

Exchange rate stability

- Effective Fiscal and Monetary policy can be used to keep the exchange rate relatively stable.
- Depreciation and appreciation of the currency creates uncertainties for producers and traders and should be limited.
- The SARB changed the Exchange rate from a Managed floating to a Free floating exchange rate.

Price stability
- Stable prices lead to better results in terms of job creation and economic growth.
- The SARB inflation target is 3% – 6% and have been successful in keeping inflation within this target.
- Interest Rates, based on the Repo Rate are the main instruments used to achieve price stability.
- A stable budget deficit also has a stabilizing effect on the inflation rate.

Economic equity
- Redistribution of income and wealth is essential.
- South Africa uses a progressive income tax system – taxation on profits, taxation on wealth, capital gains tax and taxation on spending, are used to finance free services.
- Free social services are basic education; primary health and to finance basic economic services. E.g. Cash Grant to the poor, e.g. child grants and cash grants to vulnerable people, e.g. disability grants.
- Progressive taxation means that the higher income earners pay higher/more tax.

3.4.2 Budgets

Definition
- It is a document with expected income and projected expenditure.
- The budget is the most important item on the economic calendar.
- The main budget is read in Parliament during February by the Minister of Finance.
- It is authorised in Parliament and signed by the President, and it becomes law.
- The financial year of the government runs from 1 April to 31 March the following year.
- The main source of income for the State is Revenue Tax.

Different types of budgets
- Medium Term Expenditure Framework (MTEF)
- The Minister of Finance delivers it in the last week of October.
- The Medium Term Budget Policy Statement (MTBPS) – the Minister of Finance informs Parliament of any changes that have occurred since February.
- The Medium Term Expenditure framework (MTEF) requires that the state sets budgets over a **three-year period**, consisting of rolling expenditure and revenue projections.
- This is set against the backdrop of economic and fiscal goals and prospects for the economy.

The Main (national) Budget

- Is the statement of government's planned expenditure and anticipated income for the fiscal year.
- Minister of Finance finalises the budget.
- There are three considerations when setting up the budget:
  – Financial – Cabinet decides whether taxes have to be increased or decreased.
  – Economic – Cabinet must know the needs or requirements in the economy.
  – Political – Political parties use the budget to implement their policy.

The Provincial Budget

- They are the main beneficiaries from tax income collected by the government.
- Money paid to Provinces is based on **equitable share** and **conditional grants**.
- Each province set up its own budget and presents it to the provincial legislator.
- Financial year of provinces runs from 1 April – 31 March the following year.
- Equitable share formula is used to distribute revenue to the provinces:
  – Education (51%) – based on size of the school age population and the number of learners enrolled for the last 3 years.
  – Health (19%) – based on the portion of population who do not have access to basic medical services.
  – Basic Share (15%) based on each province's share of total population of the country.
  – Institutional component (5%) – divided equally amongst provinces.
  – Poverty component (3%) – based on the number of people who are poor in the province.
  – Economic output component (1%) – determined by the Province's contribution to GDP of the country.
- Provinces may levy taxes, duties, grants, fines and surcharges.
- Conditional grants: these are given to the provinces to promote national priority spending and to assist them in complying with national norms and standards.

3.5 Fiscal policy

Fiscal policy can be defined as the action taken by government in respect of taxation, government spending and borrowing in order to influence economic activity.

3.5.1 Features
- **Goal bound**
  - Central government determines economic and social goals during the budgetary process.
  - The budget is used to realise these economic and social goals.
- **Demand biased**
  - Fiscal policy is the main demand-side policy.
  - The government improves infrastructure to support fiscal policy.
- **Cyclical**
  - Business cycles have an effect on fiscal policy decisions.
  - During an upswing profits increase, and as a result government income increases.

3.5.2 Composition
- Instruments of fiscal policy are taxation and government spending
- When Income and expenditure are equal = a balanced budget
- When Income is more than expenditure there will be a budget surplus
- When expenditure is more than income there will be a budget deficit

Expenditure

Government spending is classified in 2 main ways:
- **Functional classification:** Social; Protection; Economic; Interest; General.
- **Economic classification:** Current payments; Transfers and subsidies; Payment for capital assets.

Government spends money to provide public and merit goods and services free of charge or at a subsidised price.
- To pay interest on government debt.
- To redistribute income.
- To influence aggregate demand and supply.

Taxation

Government imposes tax for the following reasons:
- To raise income to cover expenditure
- To discourage the use of demerit goods
- To convert external cost into private cost
- To discourage imports
- To redistribute income
- To influence the level of aggregate demand and aggregate supply

Borrowing (State debt)
- The main budget must always balance. If there is a deficit, loans are made to balance it.
- If there is a surplus, the money is used to pay off state debt.
- Loans add to loan debt, also known as public debt.

3.5.3 Effects

- **Income distribution**
  - Progressive tax system: Fiscal policy aims to achieve a more even distribution of income.
  - Regressive tax system: Fiscal policy causes an uneven distribution of income.
  - Proportional tax system: Fiscal policy uses this when it does not wish to disturb the existing distribution of income.
- **Consumption**
  - Direct and indirect taxes influence people's disposable income and spending patterns.
  - An increase in taxes will cause spending to decrease especially when savings are low.
- **Price level**
  - Direct tax reduces inflationary pressure.
  - A rise in indirect taxes will raise the general price level.
- **Disincentives/incentives**
  - High and progressive income tax rates discourage people from entering the labour market, from accepting promotions, and from working longer hours.

Laffer Curve

Figure 3.1 shows the relationship between tax rates and income tax in what is called the Laffer Curve.
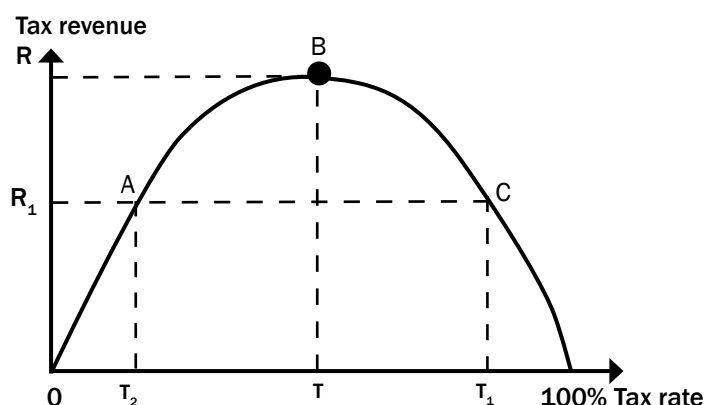
Figure 3.1 The Laffer Curve

The Laffer Curve shows the relationship between (income) tax rates and tax revenue.
- At point 0, average tax rate is 0 and tax revenue is 0.
- As the tax rate increases, the tax revenue will also increase up to a certain point. The curve will slope upward then peak at T.
- Maximum tax revenue is at point R (the peak) and the best tax rate is at point T.
- The state earns maximum revenue at point B.
- If the tax rate increases from T to T_1 then the tax revenue will decrease from R to R_1.
- People work less as a result of the higher tax rate.
- If taxation decreases to T_2, the government may receive less revenue, but people may have more money to save and spend.

Discretion
The Minister of Finance use his discretion on fiscal decisions e.g. how much to reduce income tax. Rules are:
- deficit rule: not to exceed 3% of GDP
- borrowing rule: only for capital expenditure
- debt rule: not to exceed 60% of nominal GDP.

3.6 Public sector failure

3.6.1 Characteristics/features

Ineffectiveness
- Public sector is failing when the following are prevalent:
  - Missing targets, example regarding inflation, growth and employment.
  - Incompetence in using monetary and fiscal policy and harmonising them.

Inefficiencies
- Wasting resources, such as taxpayers' money.
- These may occur in relation to protection and social, economic and administrative services for which money is voted in the budget.

3.6.2 Reasons
Public sector failure occurs when the public sector fails to provide goods and services to the people. There are many reasons for public sector failure. Some of these are:

Management failure
Ignorance, e.g. lack of leadership, experience and training, might result in the improvement of the welfare of someone at the expense of someone else.

Apathy
Government officials show little or no interest in delivering an efficient service to the public. There is no accountability. Corruption and poor service delivery are some of the symptoms of apathy.

Lack of motivation
Workers rarely receive incentives for successful service delivery, but are only monitored on inputs and correctly following procedures and processes. This might lead to limited services, high cost and low quality.

Bureaucracy
Bureaucrats tend to obey rules and regulations without judgement. They tend to be more interested in obeying the rules than the efficient delivery of goods and services to the people.

Structural weaknesses
Objectives are not met. Some objectives may work against each other, e.g. government redistributes income and wealth too aggressively.

Special interest groups

Attempts by interest groups such as farmers or organised labour to influence government to their own advantage.

3.6.3 Effects

Allocation of resources

When the government fails an optimal allocation of resources is not achieved and consequently resources are wasted.

Economic instability

Government failure can lead to macroeconomic instability. Government is unable to use fiscal policy effectively.

Distribution of income

If government fails to use the tax system effectively then there will be an unfair distribution of income in the economy.

Social instability

When the public sector fails to deliver the required social services to the poor, the economy can be destabilised.

Activity 1

Figure 3.2 below is a news article on the *National Budget 2012.* Study the information and answer the questions that follow.

HOW MUCH IS GOING TO BE SPENT?

Defence R41.6 BN
Economic affairs R145.0 BN
Health R121.9 BN
Education R207.3 BN
Public order and safety R98.0 BN
Housing and community amenities R120.1 BN
Social protection R157.9 BN
Other R166.6 BN

IMPROVING THE QUALITY OF LIFE FOR ALL SOUTH AFRICANS

Over the long term, government aims to grow the economy so that all South Africans who wish to work can work. But given our history, it will take some time before we can reach this goal. and we urgently need to assist millions of South Africans who do not have access to an income, or who are otherwise vulnerable.

Poverty alleviation is at the heart of government's agenda. The social assistance programme is South Africa's most direct means of combating poverty. In 2012/13, R104.9 billion is allocated to social assistance, rising to R122.0 billion in 2014/15. The number of grant recipients will rise from about 15.6 million in 2011/12 to 16.1 million in 2012/13 and is set to rise to 16.8 million in 2014/15.

The Isibindi project will benefit 858 000 children and adolescents, with a focus on rural communities, orphans and child-headed households. About 10 000 youth workers will be employed in this programme.

The Department of Social Development receives an additional R1.4 billion over the next three years, mainly to increase access to early child development from 50 000 to 580 000 and to roll out an in-house and community-based childcare and protection programme (Isibindi).

Figure 3.2: A news article on the National Budget 2012

1. To which economic concept does "*Improving the quality of life*..." refer to? (2)
2. From the extract, name **TWO** macroeconomic aims (objectives) reflected in the 2011/12 Budget. (2 × 2) (4)
3. Which **THREE** departments received the largest allocation according to the graph? (3 × 2) (6)
4. Give **TWO** reasons why government spent more on education in 2012 than last year. (4)
5. Name **TWO** priorities that are included in the money allocated for social protection. (2 × 2) (4)

[20]

Answers to activity 1

1. Economic development✓✓
2. Job creation✓✓ and economic growth✓✓
3. Education✓✓ Social protection✓✓ Administration✓✓
4. Infrastructure development✓✓ and increase in educators' salaries✓✓
5. Poverty relief✓✓ and skills development for orphans✓✓

[20]

Activity 2

Classify each of the following activities according to CENTRAL/NATIONAL; PROVINCIAL; LOCAL GOVERNMENT and PUBLIC CORPORATIONS.

1. Traffic control (1)
2. Denel (1)
3. SABS (1)
4. Inflation target (1)
5. Telkom (1)
6. RDP housing (1)
7. Education (1)

[7]

Answers to activity 2

1. Traffic control – Local✓
2. Denel – Public corporation✓
3. SABS – Public corporation✓
4. Inflation target – Central/National✓
5. Telkom – Public✓
6. RDP housing – Provincial✓
7. Education – Central/National✓✓

[7]

Keep going!

Chapter 4

The foreign exchange market and the balance of payments accounts

The **foreign exchange market** (currency market) is an exchange market which determines the relative values of different currencies, and enables the conversion of currency to facilitate international trade.

The **balance of payments (BoP)** accounts record all financial transactions between a country and the rest of the world over a period of a year. They include export and import transactions, financial transfers and financial capital transactions.

Overview

TOPIC	CONTENT	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES

4. Economic growth and develop-ment: Foreign exchange market (Globali-sation)	**Examine the foreign exchange market and the establishment of exchange rates and show how the balance of payments account is affected**
	
	• **The main reasons for international trade**
	 – **Demand reasons**
	   – Size of population
	   – Income levels
	   – Change in the wealth of the population
	   – Preferences and taste
	   – The difference in consumption patterns
	 – **Supply reasons**
	   – Natural resources
	   – Climatic conditions
	   – Labour resources
	   – Technological resources
	   – Specialisation
	   – Capital
	 – **The effects of international trade**
	   – Specialisation
	   – Mass production
	   – Efficiency
	   – Globalisation
	
	• **The balance of payments**
	 – **Description/definition**
	 – **The value of the BoP**
	 – **Composition of the BoP**
	   – The current account
	   – The capital transfer account
	   – The financial account
	   – The reserve account
	
	• **Foreign exchange markets**
	 – **Description/definition**
	 – **Supply and demand/Price formation**
	 – **Appreciation and depreciation**
	 – **Revaluation and devaluation**
	 – **Interventions in the market**
		• Give a brief discussion on the main reasons for international trade
		• Distinguish between the demand and supply reasons
		
		• Briefly discuss the effects of international trade
		• Give your opinion on the effects of international trade
		
		• Define the BoP
		• Explain the purpose/value of the BoP
		• Analyse and interpret the BoP
		• Give a brief overview of the subaccounts of the BoP
		
		HOT QUESTION: 'It is often said that a BoP shows if a country is living within its means'. Evaluate this statement with regard to each section in the BoP
		
		• Define/Explain/Compare the relevant concepts
		• Draw/interpret graphs
		• Briefly discuss the demand and supply factors
		• Briefly discuss market intervention
		
		HOT QUESTION: Draw a fully labelled graph that illustrates equilibrium in the foreign exchange market and predict the effects that changes in the underlying forces of supply and demand will have on the value of a currency

• **The establishment of foreign exchange rates**
  – **Exchange rate systems**
    – Free floating exchange rate system
    – Managed floating exchange rate system
    – Fixed exchange rate system
  – **Terms of trade**
  – **Free trade and protection**
  – **South Africa's foreign trade**
 	
• **Corrections of BOP surplus and deficit (disequilibria)**
  – **Description/definition**
  – **Interest rates**
  – **Import controls**
  – **Borrowing and lending**
  – **Change in demand**
  – **Export promotion**
  – **Import substitution**
  – **Change in exchange rates**
	• Define and explain the relevant concepts
	• Briefly discuss each exchange rate system
	• Briefly explain the concept terms of trade
	• Broadly outline the concepts free trade and protectionism
	• Broadly outline, analyse and interpret data on the composition of SA trade and trading partners
	• Evaluate South Africa's exchange rate system
	• **Assess South Africa's foreign trade in relation to its terms of trade, free trade and protection**
	
	• Explain the concepts: corrections and deficit/disequilibria
	• Briefly discuss the different measures
	
	HOT QUESTION: 'South Africa's BoP shows an overall deficit of R10 billion rand over three successive quarters this year.' Assume the biggest problem appears to be the current account. How would you advice the Governor of the Reserve Bank to reduce the deficit on the BoP?

Make mobile notes to learn these terms and definitions. Instructions on how to make mobile notes are on page xiv in the introduction.

4.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide. Understand these concepts well.

Term	Definition
Absolute advantage	Where one country can produce goods or services cheaper than another
Balance of payments	A systematic record of all transactions between one country and other countries, e.g. between South Africa and all other countries in the world
Comparative advantage	A situation where one country has a relative advantage in the production of goods or services
Direct investment	Includes transactions relating to investment, e.g. investments in businesses
Exchange rate	The rate at which one currency is exchanged for another. It is also considered the value of one country's currency in terms of another country's currency
Free trade	When consumers and producers are free to buy goods and services anywhere in the world without any restrictions
International Monetary Fund (IMF)	An international organisation that lends money to countries with ongoing balance of payment problems
International trade	The exchange of goods or services across international borders
Net balance	Money that enters the country is offset against money that leaves the country
Portfolio investment	Buying and selling equities and debt securities, e.g. shares and bonds
Special Drawing Rights (SDR)	A financing instrument distributed among member countries of the IMF
Terms of trade	Compares a country's export prices with its import prices by means of indexes. The formula used to determine the terms of trade is: $$\frac{\text{Index of export prices}}{\text{Index of import prices}} \times 100$$ The terms of trade will improve when export prices increase of import prices decrease
Trade balance	The value of exports minus imports
Transfer payment	Money received without any productive service rendered, e.g. gifts

4.2 The reasons for international trade

There are many reasons for **international trade.** Countries may have a surplus of some goods and a shortage of other goods, and they will trade in order to correct these imbalances. For example, South Africa has more minerals than it can use, but less oil than it needs. Certain goods are only produced in specific countries (e.g. French champagne) and the citizens of other countries may desire access to those goods. Droughts can severely damage the production of staple crops in a country resulting in the need to import crops to feed the population.

4.2.1 Demand reasons

* **The size of the population impacts demand.** If there is an increase in population growth, it causes an increase in demand, as more people's needs must be satisfied. Local suppliers may not be able to satisfy this demand.
* **The population's income levels effect demand.** Changes in income cause a change in the demand for goods and services. An increase in the per capita income of people results in more disposable income that can be spent on local goods and services, some of which may then have to be imported.
* **An increase in the wealth** of the population leads to greater demand for goods. People have access to loans and can spend more on luxury goods, many of which are produced in other countries.
* **Preferences and tastes** can play a part in the determining of prices, e.g. customers in Australia have a preference for a specific product which they do not produce and need to import, and it will have a higher value than in other countries.
* **The difference in consumption patterns** is determined by the level of economic development in the country, e.g. a poorly developed country will have a high demand for basic goods and services but a lower demand for luxury goods.

4.2.2 Supply reasons

* **Natural resources** are not evenly distributed across all countries of the world. They vary from country to country and can only be exploited in places where these resources exist.
* **Climatic conditions** make it possible for some countries to produce certain goods at a lower price than other countries, e.g. Brazil is the biggest producer of coffee.
* **Labour resources** differ in quality, quantity and cost between countries. Some countries have highly skilled, well-paid workers with high productivity levels, e.g. Switzerland.
* **Technological resources** are available in some countries that enable them to produce certain goods and services at a low unit cost, e.g. Japan.
* **Specialisation** in the production of certain goods and services allows some countries to produce them at a lower cost than others, e.g. Japan produces electronic goods and sells these at a lower price.

NB

Learn these five **demand** reasons for international trade.

Use the following word mnemonic to help you remember the 5 demand reasons:

P = Population → **P**eople
I = Income → **I**n
W = Wealth → **W**itbank
P = Preferences → **P**refer
C = Consumption → **C**offee

NB

Learn these six **supply** reasons for international trade.

Use this word mnemonic to help you remember the 6 supply reasons:

R = Resources → **R**ich
C = Climate → **C**ountries
L = Labour → **L**ike
T = Technology → **T**o
S = Specialisation → **S**end
C = Capital → **C**hocolate

• **Capital** allows developed countries to enjoy an advantage over under-developed countries. Due to a lack of capital, some countries cannot produce all the goods they require themselves.

4.2.3 The effects of international trade

• **Specialisation** increases the standard of living, especially when the area of specialisation is in great demand due to a shortage of supply, e.g. Angola has oil so it can specialise in oil products. Mozambique has no oil resources and cannot specialise in these resources.
• **Mass production** becomes possible if the domestic demand is added to foreign demand, e.g. manufacturing of cell phones.
• **Efficiency** increases when there is competition. Lower prices means that the same income can buy more goods and services.
• **Globalisation** is driven by international trade, e.g. trade in IT products and vehicles (cars and trucks).

NB Learn these four **effects** of international trade.

Use this word mnemonic to help you remember the 4 effects of international trade:
S = Specialisation → **S**elling
P = Production → **P**roducts
E = Efficiency → **E**quals
G = Globalisation → **G**rowth

4.3 The balance of payments accounts

4.3.1 Definition
A systematic record of all transactions between one country and other countries, e.g. between South Africa and all other countries in the world.

4.3.2 The value of the balance of payments
Each country keeps a record of all its international transactions with the rest of the world. A country is said to have a BoP surplus when inflows are greater than outflows. An example of a BoP surplus on the current account would be when exports are greater than imports. A BoP deficit occurs when outflows are greater than inflows (imports are greater than exports).

4.3.3 Composition

NB Learn these four **balance of payments** accounts.

The current account
The current account is the account in the BoP that records international transactions relating to production, income and expenditure.

In calculating the balance on the current account, 5 groups of items are taken into account. They are merchandise (goods), gold, services, income and current transfers.

The capital transfer account
The balance shown reflects the net amount of the capital transfer, either negative or positive. The balance is a net amount and includes firstly transactions and grants relating to the ownership of fixed assets, for example a grant by a foreign NGO for a housing project in South Africa, secondly, debt forgiveness, thirdly, the value of households and personal effects, and financial claims and liabilities of migrants.

The financial account

The financial account shows records of investments by South Africans in other countries and by foreigners in South Africa.

These investments will include:
*   **Direct investments:**
    Foreign direct investment (FDI) refers to investment in real estate (fixed property) and obtaining a meaningful share (10%+) or control of such business.
    E.g. USA Walmart's takeover of the local chain Massmart was a foreign direct investment of US$2.2 billion.
*   **Portfolio investments:**
    Refers to the buying of financial assets such as shares in companies on the stock exchange of another country. These investments are highly liquid and their flows can be reversed at any time. Portfolio investment money is also known as 'hot money'.
*   **Other investments:**
    Other investments are a residual category. Transactions that cannot be classified as direct investments, portfolio investments or reserve assets and liabilities are classified as other investments.
    Refers to other financial transactions not covered by FDI. Short term investment that flows in and out of a country, trade credits and short term loans.

The reserve account

The reserve account records changes to the amount of gold and foreign exchange reserves (Dollars, Pounds, Euros) held by the country. These changes are a reflection of the international transactions recorded in all the other accounts on the BoP.

South Africa's total gold and foreign exchange reserves are a stock item and are not shown in the reserve account. Only the changes to the gold and foreign reserves are shown.

Table 4.1 shows the latest available balance of payments from the Quarterly Bulletin from the South African Reserve Bank. You should be able to make certain assumptions from the data given, for example:
*   Determine whether there was a surplus or deficit in one of the accounts.
*   Identify possible reasons for funds flowing out of or into the country.

South African Reserve bank: Balance of payment, annual figures in R millions									
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Current account									
Merchandise exports, free on board[2] ....(5000J)	281 827	331 338	412 220	497 618	655 759	503 656	565 860	671 220	696 180
Net gold exports[3] ....(5001J)	28 698	27 023	35 470	39 898	48 534	52 776	59 499	75 298	71 050
Service receipts ....(5002J)	63 425	71 808	82 643	97 110	105 351	100 760	102 362	107 825	124 332
Income receipts ....(5680J)	20 973	29 550	41 207	48 448	48 254	34 075	34 099	38 118	48 501
Less: Merchandise imports, free on board[2] ....(5003J)	311 759	360 362	476 966	573 850	739 852	554 161	598 151	730 128	842 775
Less: Payments for services ....(5004J)	66 420	77 197	96 623	115 934	138 885	124 147	134 843	142 230	145 006
Less: Income payments ....(5681J)	48 823	60 975	75 982	117 266	122 129	87 593	87 022	104 689	118 508
Current transfers (net receipts +) ....(5006J)	–10 869	–15 680	–15 768	–16 575	–18 906	–22 428	–16 762	–14 199	–31 369
Balance on current account ....(5007J)	–42 948	–54 495	–93 799	–140 551	–161 874	–97 062	–74 958	–98 785	–197 595
Capital transfer account (net receipts +) ....(5682J)	338	193	205	197	208	216	225	241	239
Financial account[4]									
Direct investment									
Liabilities[5] ....(5640J)	5 155	42 270	–3 567	40 120	74 403	45 465	8 993	30 808	37 540
Assets[6] ....(5656J)	–8 721	–5 916	–41 058	–20 896	25 888	–9 757	554	1 865	–35 867
Net direct investment ....(5683J)	–3 566	36 354	–44 625	19 224	100 291	35 708	9 547	32 673	1 673
Portfolio investment									
Liabilities ....(5644J)	46 262	36 188	144 501	97 485	–71 540	107 234	107 876	45 878	94 655
Assets ....(5660J)	–5 946	–6 123	–15 044	–24 026	–63 325	–13 470	–33 374	–62 223	–40 002
Net portfolio investment ....(5684J)	40 316	30 065	129 457	73 459	–134 865	93 764	74 502	–16 345	54 653
Other investment									
Liabilities ....(5650J)	10 944	32 735	60 750	58 711	47 730	–39 956	65 736	43 005	65 736
Assets ....(5666J)	–3 555	–22 895	–38 823	2 119	82 983	23 703	–22 138	–13 444	40 368
Net other investment ....(5685J)	7 389	9 840	21 927	60 830	130 713	–16 253	–14 239	29 561	106 104
Balance on financial account ....(5688J)	44 139	76 259	106 759	153 513	96 139	113 219	69 810	45 889	162 430
Unrecorded transactions[7] ....(5686J)	35 999	12 306	16 627	34 657	91 593	664	36 229	85 359	43 881
Change in net gold and other foreign reserves owing to balance-of-payments transactions ....(5020J)	37 528	34 263	29 792	47 816	26 066	17 037	31 306	32 704	8 955
Change in liabilities related to reserves[8] ....(5021J)	2 949	2 577	–5 453	–7 631	–7 761	–2 724	–2 683	7	16
SDR allocations and valuation adjustments.................(5022J)	–10 617	11 003	23 350	5 642	74 214	–38 647	–30 712	74 441	24 141
Net monetisation(+)/demonetisation(–) of gold ....(5283J)	84	–226	163	169	158	45	13	42	11
Change in gross gold and other foreign reserves .(5023J)	29 944	47 617	47 852	45 996	92 677	–24 289	–2 076	107 194	33 123
Memo item: Change in capital transfer and financial accounts including unrecorded transactions ....(5687J)	80 476	88 758	123 591	188 367	187 940	114 099	106 264	131 489	206 550

Table 4.1 Balance of payments   *Quarterly Bulletin September 2013*

4.4 Foreign exchange markets

A foreign exchange rate is the price of one country's currency in terms of another. It is expressed (quoted) as the domestic price of one unit of a foreign currency, for example, $1=R10.00.

In South Africa, the forex market is known as the interbank foreign exchange market. It does not have a physical location or corporate form, such as the Johannesburg Stock Exchange (JSE). It is a worldwide practice, transactions are done electronically by computers, in writing by e-mail, fax or letter or by phone.

4.4.1 Definition: Foreign exchange markets

A foreign exchange market is a market engaged in the buying and selling of foreign exchange. The leading markets are in London, New York and Tokyo.
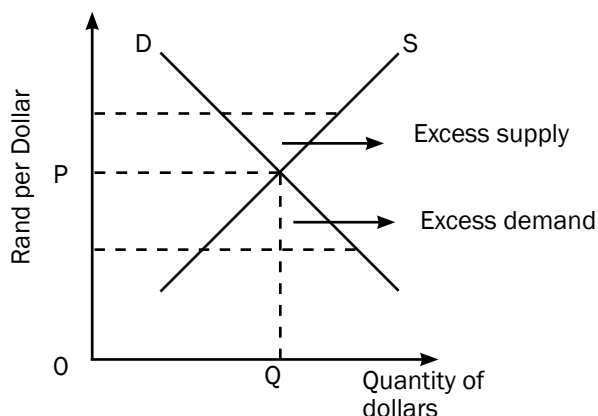
4.4.2 Supply and demand

Figure 4.1: The interaction of demand and supply in establishing the rate of exchange

A demand for dollars exists when, for example, South African importers wish to exchange rands for dollars to pay for goods/services to be imported from the United States of America. On the other hand, the holders of dollars seek to exchange dollars for rands when, for example, the American importer wants to pay for goods/services to be imported from South Africa.There might be an excess supply or excess demand for dollars when the price rises above or falls below the market price of QP (see Figure 4.1).

FACTORS THAT WILL INFLUENCE DEMAND AND SUPPLY	
Demand factors for foreign exchange	**Supply factors of foreign exchange**
• Importing goods • Payment for services from foreign countries • Buying shares in another country • Tourists spending money overseas • Repayment of debt borrowed from foreign countries	• Exporting goods • Providing services to foreign countries • Receiving dividends on shares invested in foreign countries • Inflow of foreign capital • Expenditure of money by foreign tourists • Raising new loans in foreign countries

Table 4.2 Factors that will influence demand and supply of foreign exchange

4.4.3 Appreciation and depreciation

Appreciation of a country's currency is an increase in the price of the currency in terms of another currency due to market forces. For example when the dollar goes from $1 = R9 to $1 = R10, then the dollar has appreciated.

Depreciation of a currency is a decrease in the price of the currency in terms of another country's currency due to market forces. For example if the dollar goes from $1 = R9 to $1 = R8, then the dollar has depreciated against the rand.

▲ Up

▼ Down

4.4.4 Revaluation and devaluation

Revaluation of a currency refers to the deliberate increase in the value of the currency in terms of another currency. (As a result of central bank intervention.) This occurs under a fixed exchange system.

Devaluation of a currency refers to the deliberate decrease in the value of the currency in terms of another currency. (As a result of central bank intervention).

4.4.5 Intervention in the market

A symbiotic (mutually dependent) relationship exists between the exchange rate of a country and its balance of payments. This relationship invites continuous attention from the central bank. Central banks often intervene when the currency is either overvalued or undervalued.

Overvalued: When a country's currency is valued too high, for example, the South African rand is R7 rather than R8 for a US dollar. This can lead to continuous deficits on the current account of the balance of payments.

Undervalued: When a country's currency is not valued high enough, for example, the South African rand is R9 rather than R8 to a US dollar. Such undervaluation can be demonstrated by continuous surpluses on the current account of the balance of payments.

Two methods of intervention are traditionally used:

Direct intervention: The Central bank buys foreign exchange when the currency is overvalued, and sells foreign exchange when the currency is undervalued.

Indirect intervention: The most important instrument used by the central bank for indirect intervention is interest rate changes. When a currency is overvalued an increase in interest rates invites an inflow of investments. A surplus is created on the financial account that balances out the deficit on the current account. When the currency is undervalued interest rates can be decreased to cause an outflow of foreign currency and drain excess liquidity from the economy and release inflation pressure. The surplus on the current account will then decrease.

4.5 Establishment of foreign exchange rates

4.5.1 Exchange rate systems

Every country manages the value of its currency by determining the exchange rate system that will apply to its currency. There are numerous exchange rate systems. Among these are:

Free floating exchange rates

The value of the currency is determined purely by the forces of the market, i.e. demand for rand and supply of rand.

Managed exchange rates

These are exchange rates which are allowed to respond to market forces within certain limits.

Fixed exchange rates

Currencies are devaluated and revaluated. The gold standard backed the value of the currency to a certain amount of gold. South Africa stepped off the gold standard in 1932.

4.5.2 Terms of trade

* The terms of trade compare a country's export prices with its import prices by means of indexes. The formula is:

Index of export prices/Index of import prices × 100

Item	2008	2009	2010	2011	2012	2013
Index	105,3	113,7	122,0	124,7	123	121.4
% Change	0,0	8,0	7,3	2,2	−1,7	−1,6

Table 4.3 South Africa's terms of trade (excluding gold)   *(SARB QB)*

- South Africa's terms of trade index increased at high rates in 2009 and 2010. If the numerical value indexes increase, it is said that the terms of trade have improved. If the numerical value decreases, it is said that the terms of trade have deteriorated.
- **An improvement in the terms of trade may be the result of the following:**
  - An increase in export prices
  - A decrease in import prices
- **A deterioration in the terms of trade may be the result of the following:**
  - A decrease in export prices
  - An increase in import prices

4.5.3 Free trade and protection

- **Free trade** – Happens when producers and consumers are free to buy goods and services anywhere in the world without interference from a government.
- **Protection** – Limits the extent of trade between countries. For example limiting imports.

4.5.4 South Africa's foreign trade

- South Africa has a relatively open economy. Foreign trade is approximately 30% of the GDP, which means that the economy at large is sensitive to changes in the terms of trade.
- The composition of our exports and imports in Table 4.4 shows that mining and manufacturing will be more sensitive in terms of trade than, for instance agriculture.

Trade	Agriculture	Manufacturing	Mining
Exports	4,02%	50,29%	45,69%
Imports	1,54%	82,53%	15,92%

Table 4.4 Composition of South Africa's' foreign trade (2010)   (SAIRR SAS)

- Table 4.5 shows that South Africa's trade is almost equally divided between countries of the East and West or countries from the North and South.

	Africa	Europe	NAFTA	Asia	Other
Imports %	7,9	33,9	8,5	44,2	6,5
Exports %	14,7	27,4	9,7	45,3	2,9
Total R billion	130,8	352,7	104,6	448,4	113,7

Table 4.5 South Africa's trade with the world (2010)   (SAIRR SAS)

4.6. Corrections of the balance of payments

Balance of payments disequilibria exist when the outflow of foreign currency continuously exceeds or is less than the inflow of foreign currency. You will remember that a deficit on the balance of payments implies that the outflow of foreign currency exceeds the inflow of foreign currency while a surplus exists when the outflow is less than the inflow.

A way to correct balance of payments disequilibrium lies in earning more foreign exchange through more exports and reducing imports.

The following are methods that can be used to correct the deficit or surpluses on the balance of payments.

4.6.1 Lending and Borrowing

Countries with surpluses often lend money to countries with deficits. Countries with deficits often borrow. This is why some developing countries have so much foreign debt.

In the event of a fundamental disequilibrium, member countries may borrow from the International Monetary Fund (IMF).

Borrowing is nevertheless not a long-term solution for fundamental balance of payments disequilibrium.

4.6.2 Change in exchange rate

Currency depreciation or devaluation makes imports more expensive for domestic consumers and exports cheaper for foreign buyers. For example, when the rand depreciates, South African goods (exports) become cheaper for foreign buyers. Imports become more expensive for South Africans.

4.6.3 Change in demand

The following four instruments are used in various countries to restore the equilibrium:

Long-term policies – Export promotion, such as government incentives, is applied to encourage the production of goods that can be exported. For example, European countries pay subsidies to farmers. Import substitution, for example, government incentives to produce goods domestically rather than to import them. The South African government favours export promotion.

Interest rates – Domestic demand can be changed by changing interest rates. If interest rates are increased spending, including on imports, decreases. Foreign traders will try to take advantage by increasing their investment in the country with the higher interest rate. The opposite happens when interest rates are decreased.

Import control – They include import tariffs, other duties and quotas. The WTO is trying to phase them out for the sake of trade liberalisation.

Exchange control – There are domestic regulations that allow central banks to ration foreign exchange. Earners of foreign exchange are compelled by law to hand it over to the central bank. Those who require foreign exchange have to apply to the central bank.

Activity 1

Study Figure 4.2 concerning international trade and answer the questions that follow.
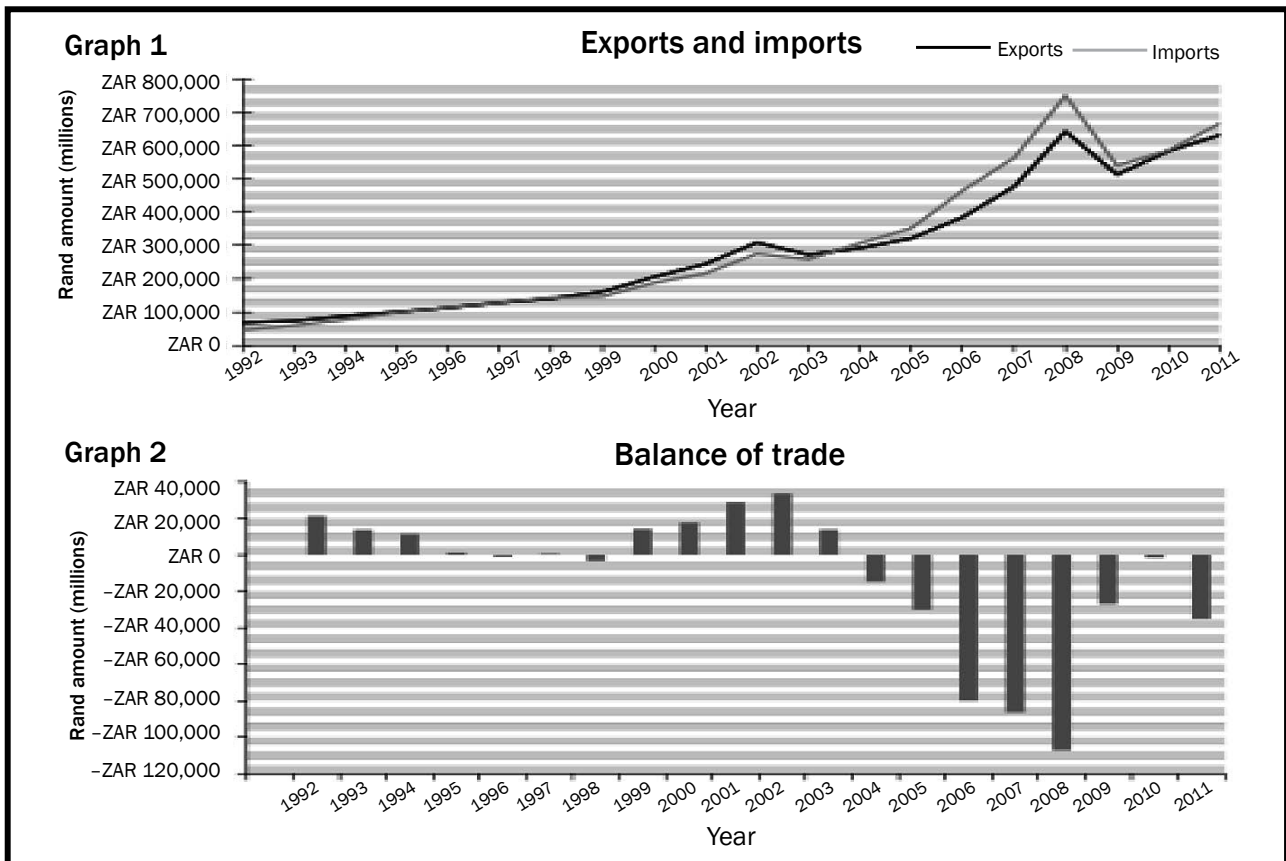

Figure 4.2 International trade

1. What does graph 1 depict? Supply a reason for your answer. (2)
2. Define the term balance of trade. (3)
3. Does the balance of trade in 2008 indicate a positive or a negative balance? (2)
4. Estimate the balance of trade for 2008. (4)
5. What effect did the closing of textile factories in South Africa have on the balance of trade? (3)
6. Which economic trend in 2009 contributed to the decline in imports and exports? (2)

[16]

Activity 2

Study Table 4.2 which shows the balance of payments extract and answer the questions that follow:

BALANCE OF PAYMENT – ANNUAL FIGURES – R millions	2009	2011
Balance of current account	–97 062	–98 785
Capital transfer account (net receipts)	216	241
Financial Account:		
Direct investment (net)	35 708	**B**
Portfolio investment (net)	93 764	–16 345
Other investment (net)	–16 253	29 561
Balance on financial account	**A**	45 889
Unrecorded transactions	664	85 359
Change in gross gold and other foreign reserves	–24 289	107 194

Source: Quarterly Bulletin, SARB. March 2012.

Table 4.2 Balance of payments for 2009–2011

1. Define the concept balance of payments. (2)
2. Calculate the missing figures in A and B. (4)
3. What does 'net figures' indicate in the financial account? (2)
4. Give TWO examples of income receipts earned by South African residents. (4)
5. Briefly explain how balance of payments disequilibria can be corrected. (6)

[18]

Answers to activity 2

1. This is a systematic record of all transactions between one country, e.g. South Africa and all other countries in the world.✓✓

   (2)

2. A = R113 219 million✓✓ B = R32 673 million✓✓   (4)

3. Money that enters the country is offset against money that leaves the country. ✓✓

   (2)

4. Income earned by South Africans working in other countries, e.g. a South African teaching in Dubai.✓✓ ✓✓

   When South Africans receive dividends on the shares they hold in foreign companies.✓✓

   (4)

5. • Borrowing money from the IMF✓✓

   • Policies of export promotion and import substitution✓✓

   • Increase in aggregate supply will reduce prices. Exports are promoted through cheaper prices.✓✓

   • Higher interest rates help to decrease spending on imports.✓✓   (any 3 × 2) (6)

   [18]

Keep going!

Chapter ⬤5

Protectionism and free trade

Protectionism refers to government policies and regulations (such as restrictive quotas and tariffs on imported goods), which are designed to benefit local producers of goods and services in their competition with imported goods, thus helping them to survive.

Free trade occurs where government creates very few barriers to international trade. This allows the free flow of goods and services into the country from any other country that can produce these goods cheaper, better, or in the required volumes.

Overview

TOPIC	CONTENT	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES

5. Economic systems: Protection and free trade (Globalisation)	Discuss protectionism and free trade and evaluate the South African international trade policies and major protocols in terms of the following:
	
	• **Export promotion**
	  – **Definition**
	  – **Reasons**
	  – **Methods**
	  – **Advantages**
	  – **Disadvantages**
	
	• **Import substitution**
	  – **Definition**
	  – **Reasons**
	  – **Methods**
	  – **Advantages**
	  – **Disadvantages**
	
	• **Protectionism (the arguments)**
	  – **Definition**
	  – **Arguments in favour of protectionism**
	    – Industrial development
	    – Infant industries
	    – Stable wage levels and high standard of living
	    – Increased employment
	    – Self-sufficiency and strategic industries
	    – Prevention of dumping
	    – Stable exchange rates and BoP
	    – Protection of natural resources
	
	• **Free Trade (the arguments)**
	  – **Arguments in favour of free trade**
	    – Specialisation
	    – Economy of scale
	    – Choices/increased welfare
	    – Innovations/best practice
	    – Improved international relations
	
	• **A desirable mix**
	  – **Import substitution and export promotion**
	  – **Protection of free trade**
	  – **Globalisation**
	  – **Economic integration**
		• Define/explain the concept
		• Discuss export promotion in detail
		
		• Define/explain the concept
		• Discuss import substitution in detail
		
		HOT QUESTION: Evaluate the effectiveness of the application of the policies of export promotion and import substitution
		
		• Define/explain the concept
		• Discuss arguments in favour of protectionism in detail
		• Broadly outline the concept free trade and protectionism
		
		• Define/explain the concept
		• Discuss free trade in detail
		
		HOT QUESTION: Argue a case in favour of protectionism and against free trade, OR in favour of free trade and against protectionism
		
		• Explain in your own words the meaning of a desirable mix
		• Briefly outline economic integration as part of trade protocols
		
		HOT QUESTION: How does globalisation impact on the desirable mix of South Africa?

	• **Evaluate South Africa's trade policies**	• Explain the meaning of the concept protocol
	– **Import substitution and export promotion**	• Briefly evaluate the South African policies in terms of protectionism and free trade
	– **Protection and free trade**	• Briefly evaluate South Africa's trade protocols in terms of their benefits
	– Southern African Custom Union (SACU)	
	– Multilateral Monetary Area (MMA)	
	– Southern African Development Community (SADC)	
	– African Union (AU)	
	– European Union (EU)	
	– Mercusor	
	– AGOA	
	– The partnership between South Africa and China	
	– Brazil, Russia, India, China and South Africa (BRICS)	
	– **Trade Liberalisation**	• Explain the concept
	– World Trade Organisation (WTO)	• Broadly outline the role of the World Trade Organisation in trade liberalisation

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Mind the Gap CAPS Grade 12 Economics · CHAPTER 5 PROTECTIONISM AND FREE TRADE **69**

5.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide.

Term	Definition
BRICS	An association of emerging economies consisting of Brazil, Russia, India, China and South Africa set up to promote co-operation, policy coordination and political dialogue in international, economic and financial matters
disinvestment	Withdrawal of capital investment from a company or country
embargo	An official state ban on trade or other activities with a particular country
export promotion	Incentives to encourage the production of goods that can be exported. It is part of South Africa's international trade policy
Free trade	When producers and consumers are free to buy goods and services from anywhere in the world without the interference of government
import substitution	Goods that were previously imported are replaced with locally produced goods. It is part of South Africa's international trade policy
Mercosur	An organisation to promote free trade amongst Argentina, Brazil, Paraguay and Uruguay
New Partnership for African development (NePad)	Provides for regional cooperation and integration among African states
Protection	A trade policy whereby the state discourages the importing of certain goods and services in order to protect local industries against unequal competition from abroad
Southern African Development Community (SADC)	An economic and monetary union comprising Angola, Botswana, the Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, SA, Swaziland, Tanzania, Zambia and Zimbabwe, which allows imports from member states to qualify for duty-free access to other member states
Sanctions	A penalty applied by one or more countries on another country
trade liberalisation	The abolition of government intervention in trade flows on both the import and the export side
World trade Organisation (WTO)	The international organisation that was created to monitor and liberalise international trade
Protocol	The established code of procedure or behaviour in any group or organisation. The official procedure governing affairs of state, e.g. cultural activities and international affairs

5.2 Export promotion

5.2.1 Definition
Export promotion involves providing incentives to encourage local businesses to produce goods for export.

5.2.2 Reasons for export promotion
Some of the reasons for export promotion are:
• The country achieves significant export-led economic growth.
• Export promotion enlarges the production capacity of the country.
• Export markets are much bigger than local markets.
• More workers will be employed.
• Prices will be reduced.

5.2.3 Methods of export promotion
Methods used to support export promotion include:
• **Incentives:** The government supplies information on export markets, research on new markets, concessions on transport charges, export credit, etc. in order to stimulate exports.
• **Subsidies:** These include direct and indirect subsidies:
  – Direct subsidies: Cash payments to exporters.
  – Indirect subsidies: Refunds on import tariffs and general tax rebates.
• **Trade neutrality:** Subsidies equal in size to import duties, are paid. Neutrality can be achieved through trade liberalisation.

5.2.4 Advantages of export promotion
The advantages of export promotion include:
• There are no limitations to size and scale of market.
• Production is based on cost and efficiency.
• There is increased domestic production.
• Exchange rates would be realistic.

5.2.5 Disadvantages of export promotion
The disadvantages of export promotion include:
• The real cost of production is reduced by subsidies and incentives.
• Incentives and subsidies reduce prices and force competitors out of the market. This leads to a lack of competition.
• Export promotion results in increased tariffs and quotas by powerful overseas competitors.
• Export promotion results in the protection of labour-intensive industries by developed countries.

5.3 Import Substitution

5.3.1 Definition

Import substitution is part of South Africa's international trade policy. It occurs when locally produced goods replace goods that had previously been imported. This has a positive impact on the balance of trade.

5.3.2 Reasons for import substitution

Reasons for import substitution include the following:

- **Diversification:** when goods that were previously imported are produced locally domestic manufacturing expands and an economy becomes less reliant on foreign countries.
- **Industrialisation is promoted:** the development of new industries to produce previously imported goods can increase tax revenues and create jobs.
- **Balance of payment problems:** if the deficit on the BoP is too high, a decrease in imports can help to rectify this.
- **Trade:** developing countries' reliance on natural resources as a basis for growth and development limits their ability to grow. If these resources are used to produce goods and services which can be used domestically or exported, economic growth might be increased.

5.3.3 Methods of import substitution

The government imposes certain measures to restrict the amount of imports into the country and to support local industries. Restrictive measures used to reserve the domestic market for local manufacturers are:

These are commonly called 'barriers to trade' or 'methods of protection'.

- **Tariffs:** Customs duties or import duties are taxes on imported goods. They can be ad valorem (based on the value) or specific to certain goods. Prices of imported goods increase for domestic consumers, and they tend to shift demand from imports to domestic products (goods).
- **Quotas:** Limits are put on the supply of goods and services. Supply is reduced and prices rise. Foreign enterprises benefit if demand for their products remains high.
- **Subsidies:** They enable relatively high cost domestic enterprises to undercut more efficient foreign enterprises in the domestic market.
- **Exchange control:** Government reduces imports by limiting the amount of foreign exchange made available to those who wish to import.
- **Physical control:** A complete ban or embargo is imposed on the import of certain goods from a particular country.
- **Diverting trade:** Monetary deposits, time-consuming customs procedures and high-quality standards are imposed to make the importing of goods more difficult.

5.3.4 Advantages of import substitution

Some of the advantages of import substitution are:
- **Increased employment:** More local workers are employed. This stimulates the economy and GDP increases.
- **More choice:** Available foreign exchange can be used for other imports, thus increasing choices.
- **Diversification:** By producing more goods locally, the range of available goods increases, and the country becomes less vulnerable to foreign actions and conditions.

5.3.5 Disadvantages of import substitution

Some of the disadvantages of import substitution for the local economy are:
- **Capital and entrepreneurial talent:** This is drawn away from comparative advantage.
- **Technology borrowed from abroad:** This may be unsuitable for local production.
- **Competitiveness of certain sectors decreases:** Where comparative advantages exist.
- **Import substitution leads to demand for protection:** This demand comes from industries that provide inputs to local industries.

5.4 Protection

Many economists argue for protection, especially for developing countries. Many other economists insist that free trade is the best way to regulate markets. Governments often choose a mix of selected protectionist and free trade policies that suit the particular conditions of their country.

5.4.1 Definition of protection

A trade policy whereby the state discourages the importing of certain goods and services in order to protect local industries against unequal competition from abroad

5.4.2 Arguments in favour of protection

- **Industrial development:** Some developing countries are well suited to establishing certain kinds of industries. Free trade makes it difficult for these countries to compete with countries with well-established industries.
- **Infant industries:** Newly established industries find it difficult to survive because of high average costs of production which are higher than those of well-established foreign competitors.
- **Stable wage levels and higher standards of living:** A country with high wages has a view that the standard of living will be undermined if cheaper goods are imported from countries with low wages.
- **The protection of job opportunities:** If local industries cannot find profitable markets because of cheaper imports, production may decrease and this will lead to more unemployment.
- **Economic self-sufficiency and strategic key industries:** In times of conflict, cut-off or friction between countries occurs. Protection

should be granted, especially to key industries to ensure the availability of these key products.

- **Dangers of dumping:** Some countries sell their surplus goods in a foreign country at lower prices than it cost them to produce the goods. Local producers cannot compete, and their factories may close.
- **Stabilise exchange rates and balance of payments:** Traders buy in the cheapest markets and sell in the most expensive ones. Countries export primary products and import manufactured goods, causing disrupted balance of payments and exchange rates.
- **Protection of natural resources:** Free trade can easily exhaust natural resources, therefore protection is needed to protect local industries and indigenous knowledge systems so that they can survive. The South African government has taken steps to protect *Rooibos* tea as natural resource and safeguard indigenous knowledge that allows the *hoodia* plant to be used for medicinal purposes.

5.5 Free trade

5.5.1 Definition of free trade
When producers and consumers are free to buy goods and services from anywhere in the world without the interference of government.

5.5.2 Arguments in favour of free trade
- **Specialisation:** The theory of comparative advantage shows that world output can be increased if countries specialise in what they are relatively best at producing. If each nation does what it does best, everyone will enjoy lower prices and higher levels of output.
- **Economies of scale:** Free trade allows economies of scale to be maximised and thus unit cost are reduced. Economies of scale are a source of comparative advantage.
- **Choice:** Free trade allows consumers the choice of what to buy from the whole world, and not just what is produced domestically. Consumers' welfare is thus increased because some consumers at least will prefer to buy foreign goods rather than domestic goods.
- **Innovations:** Free trade increases competition and this encourages innovation in goods and processes.
- **Improves global efficiency:** Under free trade, resources are allocated more efficiently as markets expand, because each country specialises in its most effective production.
- Free trade leads to **greater world production** of traded goods, leading to an increase in economic welfare.
- Free trade leads to **mutual gains** from international trade to all countries.

5.6 A desirable mix of protection and free trade

5.6.1 Import substitution and export promotion

The strategies of Import substitution and export promotion should not be regarded as unavoidable opposites. Many countries started out by protecting their domestic industries and then applied export-orientated policies only after a considerable length of time. Import substitution almost inevitably leads to export promotion.

5.6.2 Protection and free trade

Regionalisation, in the form of trade blocks, makes use of free trade and protection. Member countries pursue free trade with one another but apply trade restrictions outside their block. (Free trade area, e.g. NAFTA and Custom unions, e.g. Mercusor)

5.6.3 Globalisation

Restrictive practices, whether they relate to imports or to exports have the same effect – they reduce the potential volume of world production that would be possible if there was complete free trade and only those goods for which countries had comparative advantage were produced. To pursue this objective of free trade, an independent facilitator was required. The WTO is such a facilitator.

5.6.4 Economic integration

Some of these trade protocols that focus on economic integration are:
*   **Free trade areas (FTAs)** – Member countries agree to the removal of all tariffs. Each member country is still permitted to maintain its own level of trade protection against non-member countries.
*   **Customs unions** – Member countries agree to the removal of all tariffs. However, in a custom union, member countries all set and maintain the same external restrictions on non-member countries.
*   **Common markets** – Are a form of economic integration that satisfies all the requirements of a customs union but also allows for the free movement of factors of production between member countries.
*   **Economic unions** – Meet all the requirements of a common market, but go further which results in member countries establishing a single authority responsible for joint economic policy making, a single monetary system, one central bank, a unified fiscal system and a common foreign economic policy.

5.7 Evaluation of South Africa's trade policies

5.7.1 Export promotion and import substitution

South Africa's export promotion policy unfolds as follows:

Export promotion

- **1970's** – measures such as cash grants, tax concessions on export turnover and profits and rail freight concessions were introduced in order to reduce costs for manufacturers of goods with export potential.
- **1980's** – some quotas were removed and replaced with tariffs. Export subsidies were introduced. A list of importers that needed approval replaced a list of imports that did not need approval.
- **1985** – When the US banks refused to roll over import guarantees, South Africa declared a debt standstill and unilaterally restructured the payment of its foreign loans. The rand depreciated substantially and surcharge of 10% on imports was introduced. This led to the effective protection rate increase from 30% to 70%.
- **1990's** – the General Export Incentive Scheme (GEIS) was introduced for the purpose of encouraging the production of value-added exports. For the first time the official policy stance was one of export-orientated industrialisation.

South Africa's Import substitution policy unfolds as follows:

Import substitution

- **Tariff protection** – in 1910 the Cullinan Commission was appointed to investigate the feasibility of establishing a domestic manufacturing industry in South Africa. Tariffs were introduced by the Customs Tariff Act of 1914 and provided protection for local manufacturing industries. In 1925 a new act was implemented and the 'South Africa first campaign' was introduced. South Africa thereby introduced an official inward-looking policy.
- **The Second World War** – Iscor (now Arcelor Mittal) was established as a strategic industry in 1928, in time to take advantage of the opportunities brought about by the Second World War. The SWW stimulated manufacturing and industrial development in general. This was because SA was isolated from many imports and had to produce many products itself.
- **Export ready** – After the SWW it was accepted that import substitution was the best policy to enhance economic growth. Sasol was established in 1955 to produce oil from coal. From the mid-1960's, import substitution reached a mature phase when manufacturing increasingly focused on intermediate and capital production. Domestic demand was the main stimulus. However large markets were essential for these goods and necessitated exports. South Africa was ready for an export promotion policy. SA manufacturing sector's contribution to GDP increased from 5,8 in 1912 to 31,1% in 1981. Import substitution had indeed been successful.

5.7.2 Protection and free trade

The Customs Union Agreement of 1910 was the origin of the Southern African Customs Union (SACU). This is one of the world's oldest customs unions. The members of the SACU are: South Africa, Lesotho, Namibia, Botswana and Swaziland. The Common Monetary Area (CMA) – made up of South Africa, Lesotho and Swaziland – was replaced with the Multilateral Monetary Area (MMA) in 1992 and was joined by Namibia. Various protocols have been signed with the **African Union (AU)** and Southern African Countries, including the **Southern Africa Development Community (SADC)** and the **Africa Free Trade Zone (AFTZ)**. Since 1994 South Africa also made significant progress towards strengthening bilateral ties with its main trading partners and free trade areas (FTAs). They include the EU, Asian Free Trade Area (AFTA), Asian countries – in various combinations and BRICS.

5.7.3 Trade liberalisation

South Africa's economic policy bias towards exports as a major stimulant of economic growth was further entrenched after 1994. An agreement was reached with GATT (WTO) in terms of what trade had to be liberalised as from January 1995. South Africa's offer to the WTO consisted of a five-year tariff reduction period. More than 100 tariff categories were reduced to six categories.

South Africa's average tariff declined from 11,7% in 1994 to 5% in 2011.

Keep going!

6 Chapter

The dynamics of perfect markets

A **perfect market** is characterised by perfect competition. The conditions that result in perfect competition include:

- Equal access to the technology required for production
- No barriers to entry or exit from the marketplace
- Accurate and available market information
- No participant with the power to set the market price
- According to equilibrium theory, a perfect market will reach an equilibrium where the quantity supplied equals the quantity demanded at the market price

Overview

MAIN TOPIC: MICROECONOMICS		
TOPIC	**CONTENT**	**CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES**

6. Dynamics of markets: Perfect markets	Examine the dynamics of perfect markets with the aid of cost and revenue curves
	
	hint
	1. Review cost and revenue tables and curves done in Grade 11.
	2. Differentiate between the short and long run.
	
	• **Perfect competition**
	  – **Description**
	  – **Characteristics/conditions**
	
	• **Individual business and industry**
	  – **The demand curve for:**
	    – Individual business
	    – The industry
	  – **Profit maximization**
	  – **Derivation of supply curve from cost curves**
	
	• **Market structure**
	  – **Definition**
	  – **Characteristics**
	    – Number of businesses
	    – Nature of product
	    – Entrance
	    – Control over prices
	    – Information
	    – Examples
	    – Demand curve
	    – Economic profit
	    – Collusion
	    – Allocative efficiency
	    – Technical efficiency
	
	• **Output, Profits, Losses and Supply**
	  – **Individual business**
	    – Short run (economic profit, economic loss, normal profit)
	    – Long run (normal profit)
	    – Shut-down/closing down
	  – **The industry**
	    – Short-run (economic profit, economic loss, normal profit)
	    – Long run (normal profit)
		HOT QUESTION: Examine in detail how cost and revenue curves can be used to illustrate and explain the dynamics (working) of markets
		
		• Explain the concept
		• Examine the characteristics of a perfect market in detail
		• Compare the individual businesses to the industry in detail
		• The examination of individual business and industry should be accompanied by an analysis of tables and graphs
		
		HOT QUESTION: Explain why the individual maize, wheat or milk farmer does not have an influence on the price of their products in the market
		
		• Define the concept
		• Compare and contrast the FOUR broad types of market structures
		
		hint As the various market structures are discussed in detail, all characteristics will feature.
		
		• Examine in detail the THREE equilibrium positions with the aid of graphs
		• Explain shut-down/closing down point with the aid of a graph
		
		hint When teaching the various equilibrium positions a link must be made between individual businesses and the industry.

	• Competition policies	HOT QUESTION: Draw three fully labelled graphs showing the possible equilibrium positions of a business operating under perfect market conditions
	– **Description**	
	– **Goals with the competition policy**	
	– **Anti-monopoly policy**	• Define/explain the policy
	– **Competition Policy, Act 89 of 1998**	• Briefly discuss/analyse the goals of the SA competition policy
	– Competition Commission	• Briefly analyse the SA Anti-monopoly policy
	– Competition Tribunal	• Briefly discuss the Competition policy Act and its implications highlighting the roles of the key institutions
	– Competition Appeal Court	• Give your opinion about the successes/ failures of the Competition policy Act
		HOT QUESTION: In your opinion is the competition policy in South Africa destroying or saving businesses?

6.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide. Understand these concepts well.

Term	Definition
Economic loss	When total costs are greater than total revenue. When average revenue is lower than average cost the firm makes an economic loss
Economic profit	Profit that is made in addition to normal profit. When average revenue is greater than average cost the firm makes an economic profit
Explicit cost	Actual expenditure of business, e.g. wages and interest
Implicit cost	Value of inputs owned by entrepreneur and used in the production process (forfeited rental, interest + salary)
Long run	The period of production where all factors can change. The time is long enough for variable and fixed factors to change
Market	An institution or mechanism that brings together buyers and sellers of goods or services
Market structure	How a market is organised
Monopolistic competition	A market structure in which businesses have many competitors, but each one sells a slightly different product (e.g. CD's and books)
Monopoly	Exclusive control of a commodity or service in a particular market
Normal profit	The minimum earnings required to prevent an entrepreneur from leaving the industry. When average revenue equals average cost the firm makes a normal profit
Oligopoly	A market structure controlled by a small group of businesses
Perfect competition	A market structure with large numbers of producers and buyers
Price taker	Has no influence on price. Takes price that is determined by the market
Short run	The period of production where only the variable factors of production can change while at least one factor is fixed
Shut-down point	Business will close where MC = AVC
The Competition Appeal Court	An institution whose main functions is to review orders made by the Competition Tribunal and amend or confirm these orders
The Competition Commission	An institute that investigates restrictive business practices, abuse of dominant positions and mergers in order to achieve equity in the South African economy
The Competition Tribunal	An institution whose main function is to approve large mergers, adjudicate in the case of misconduct and issue orders on matters presented to it by the Competition Commission

6.2 Review of production, costs and revenue

Production takes place in the short run and the long run

- **Short run**
  The short run is the period of production where only the variable factors of production can change. The time period is too short to permit the number of firms in the industry to change.

- **Long run**
  The long run is the period of production where all factors can change. The time is long enough for variable and fixed factors to change. It allows enough time for new firms to enter the industry and/or existing firms to exit.

Total Product/Output	Total product is the maximum output that the firm can produce with the given number of fixed and variable inputs at its disposal	
Marginal Product/Output	Marginal product is the additional unit of output which is produced as one more unit of the variable input (labour) is combined with the fixed input	$MP = \dfrac{\Delta TP}{\Delta Q}$
Average Product/Output	Average product of a variable input shows the contribution that each labourer makes towards production	$AP = \dfrac{P}{Q}$
Fixed Costs (indirect costs/overhead costs)	Costs that remain the same even if the output changes. Examples are rent, depreciation, insurance	
Variable Costs (direct costs/prime costs)	Costs that change according to changes in output. E.g. wages the cost of raw materials, electricity etc.	
Total cost	The cost/remuneration for all the factors of production used in the production process	$TC = FC + VC$
Marginal costs	Marginal cost is the amount by which total cost increases when one extra product is produced	$MC = \dfrac{\Delta TC}{\Delta Q}$
Average cost	Average cost is the cost per unit of production	$AC = AFC + AVC$ or $\dfrac{TC}{Q}$
Average fixed cost	To calculate average fixed costs, we divide fixed costs by the amount of goods produced	$AFC = \dfrac{FC}{Q}$
Average varible cost	To calculate average variable costs, we divide variable costs by the amount of goods produced	$AVC = \dfrac{VC}{Q}$
Total Revenue	Total revenue is the total income received from the sale of goods or services	$TR = P \times Q$
Marginal revenue	Marginal revenue refers to the extra amount of income gained by selling one more unit of production	$MR = \dfrac{\Delta TR}{\Delta Q}$
Average revenue	Average revenue refers to the amount a firm earns for every unit sold	$AR = \dfrac{TR}{Q}$

Table 6.1: Review of production, costs and revenue

Summary of costs

Cost schedule for Kael's Pie shop							
Q	TFC	TVC	TOTAL COSTS	$AFC = \dfrac{TFC}{Q}$	$AVC = \dfrac{TVC}{Q}$	$(ATC = AFC + AVC)$ or $\dfrac{TC}{Q}$	$MC = \dfrac{\Delta TC}{\Delta Q}$
0	120	0	120	–	–	–	
10	120	100	220	12	10	22	10
20	120	160	280	6	8	14	6
30	120	210	330	4	7	11	5
40	120	280	400	3	7	10	7
50	120	400	520	2,4	8	10,4	12
60	120	600	720	2	10	12	20
70	120	910	1 030	1,7	13	14,7	31

Table 6.2: Summary of costs

The following sketches should resemble the shape for the above cost curves.
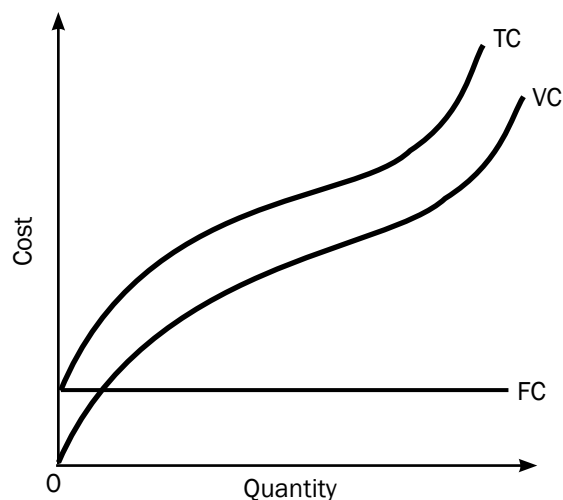
Figure 6.1 a): Total and variable cost
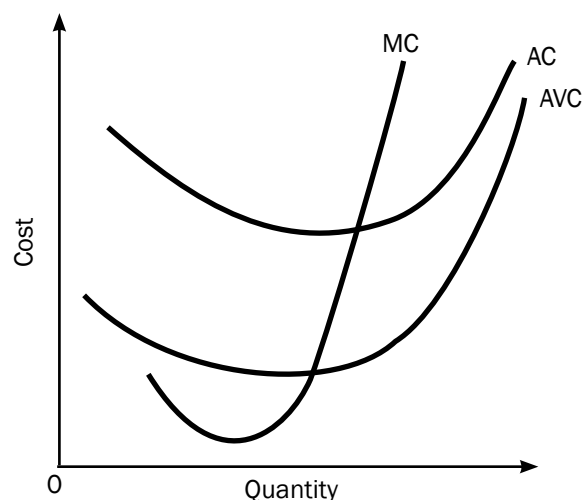
Figure 6.1 b): Marginal and average variable cost

Important observations

- The difference between the total cost and variable cost is the fixed cost
- TVC curve starts from 0 and TC starts from the fixed cost curve on the Y- axis.
- The gap between the AC curve and the AVC curve gets smaller as output increases.
- The MC Curve will always cut the AC and AVC curves at their minimum points.

6.3 Perfect competition

Perfect competition occurs in a market structure with a large number of participants who have access to all required information about the market place and are all price-takers. Prices are determined by demand and supply. Examples of market structures demonstrating most conditions of a perfect competition include the stock exchange, the foreign exchange market, the central grain exchange, and agricultural produce markets.

A perfect market is a market where no single buyer or seller has a noticeable influence on the price of a good. This gives a true reflection of the scarcity value of goods and services.

6.3.1 Characteristics/conditions of a perfect market

Products must be homogenous (i.e. identical)
- Products must be identical. There should be no differences in style, design and quality.
- In this way products compete solely on the basis of price and can be purchased anywhere.

There should be a large number of buyers and sellers
- It should not be possible for one buyer or seller to influence the price.
- When there are many sellers the share of each seller in the market is so small that the seller cannot influence the price.
- Sellers are price takers, they accept the prevailing market price. If they increase prices above the market price, they will lose customers.

No preferential treatment/discrimination
- Collusion occurs when buyers and sellers make an agreement to limit competition. In a perfect market no collusion takes place.
- Buyers and sellers base their actions solely on price, homogenous products fetch the same price and therefore no preference is shown for buying from or selling to any particular person.

Free competition
- Buyers must be free to buy whatever they want from any firm and in any quantity.
- Sellers must be free to sell what, how much and where they wish.
- There should be no State interference and no price control.
- Buyers should not form groups to obtain lower prices, nor should sellers combine to enforce higher prices.

Efficient transport and communication
- Efficient transport ensures that products are made available everywhere.
- In this way changes in demand and supply in one part of the market will influence the price in the entire market.
- Efficient communication keeps buyers and sellers informed about market conditions.

All participants must have perfect knowledge of market conditions
- All buyers and sellers must be fully aware of what is happening in any part of the market.
- Technology has increased competition as information is easily obtained via the internet.

Free access to and from markets
- Producers may enter and leave a market with little interference.
- Entering and leaving a perfect market is easy as less capital is required and there are fewer legal restrictions.

The factors of production are completely mobile
- They can move freely between markets.

In reality there are few perfect markets, however there are some sectors such as mining (e.g. gold) and agriculture (e.g. maize) where many of the conditions are met. These sectors illustrate the way in which the market mechanism works.

6.4 The individual business and the industry

6.4.1 Determining the market price

To determine the market price for a firm under perfect competition you need to draw two graphs next to each other. On the left is the graph for the industry and on the right is the graph for the firm (individual producer).
- Figure 6.2 a) (the industry) shows the interaction of demand and supply (market forces).
- The market forces are in equilibrium at the point of intersection of the demand and supply curves, at "e".
- At equilibrium the quantity demanded is equal to the quantity supplied. This determines the market price.
- Now look at Figure 6.2 b) (firm or individual producer). One producer will not be able to influence the market price and has to accept the market price (P_1), he is a price taker.
- Because this is the only price the producer can charge, the demand curve for the producer is a straight line drawn at price P_1.
- This horizontal line at the market price (P_1) is the demand curve (DD), the average revenue (AR) curve and the marginal revenue (MR) curve.

*Read this section on graphs through **five** times, and redraw each graph each time.*
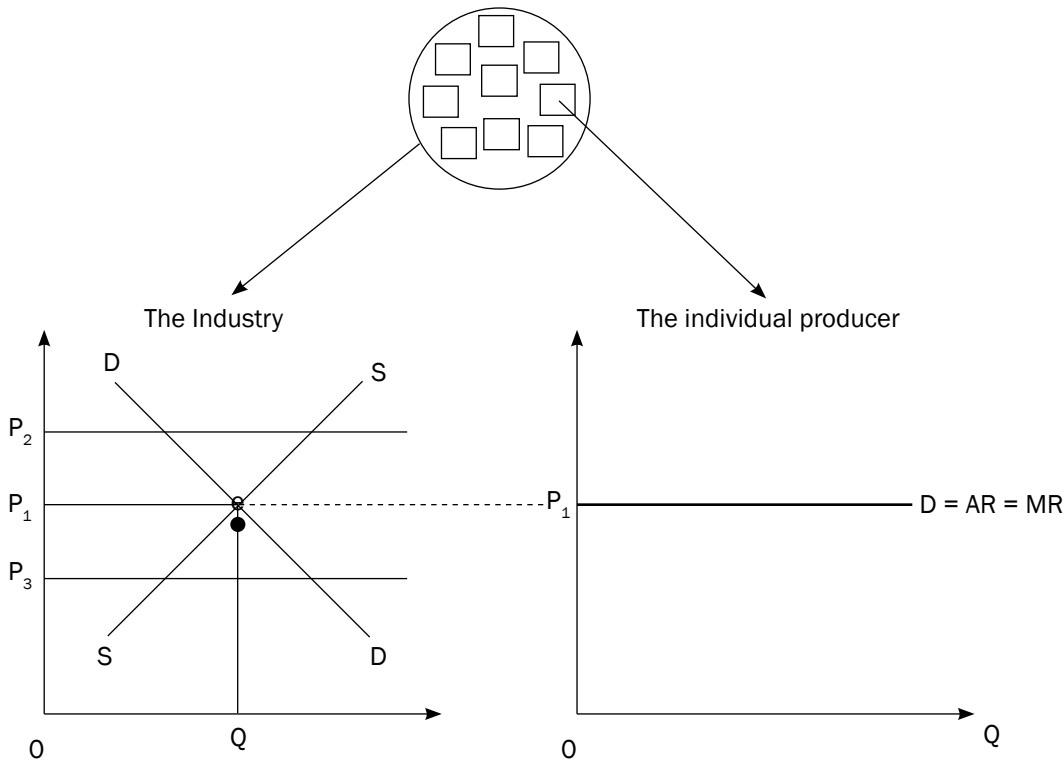
Figure 6.2 a): Industry

Figure 6.2 b): Individual producer

6.4.2 Demand curve for an individual producer

The individual producer is a price taker and sells goods at the market price. At this price, demand remains constant. A higher price such as P_2 cannot be charged as customers will be lost to other producers.

A lower price such as P_3 cannot be charged as a small profit or a loss will be made.

Remember that demand = AR = MR = P

Quantity	Price (P)	Total Revenue	Marginal Revenue $MR = \frac{\Delta TR}{\Delta Q}$	Average Revenue $AR = \frac{TR}{Q}$
0	5	0	5	5
1	5	5	5	5
2	5	10	5	5
3	5	15	5	5
4	5	20	5	5
5	5	25	5	5
6	5	30	5	5

*Table 6.3: depicting the **DEMAND, MARGINAL REVENUE** and **AVERAGE REVENUE** for an individual producer in a perfect market.*
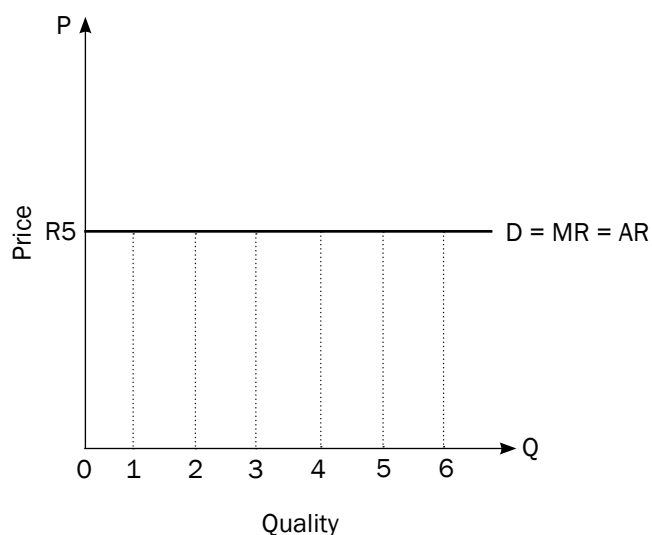
Figure 6.3: The demad curve for the individual producer

6.4.3 Profit maximisation

Occurs in 2 ways:
1.

Quantity	Price	Marginal Revenue	Marginal Cost	Contribution to profits
1	5	5	2	3
2	5	5	3	2
3	5	5	4	1
4	**5**	**5**	**5**	**0**
5	5	5	6	-1
6	5	5	7	-2

Table 6.4: Depicting profit maximisation
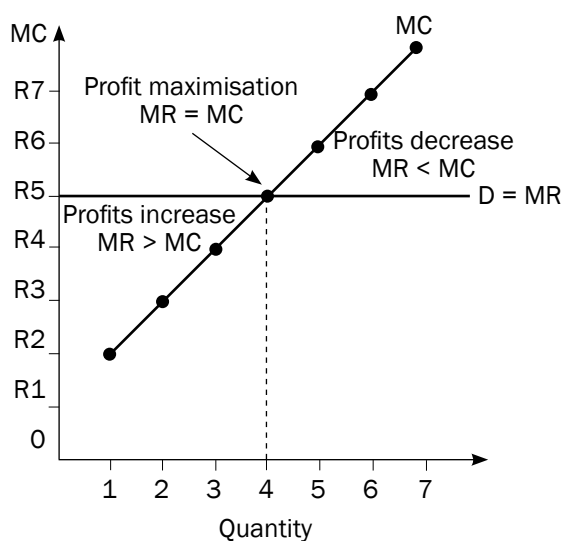
Figure 6.4: The marginal cost curve for the individual producer

> Profit maximisation occurs where MR = MC

- At all pionts where MR is above MC, the firm is adding to profit. From unit 1-3, the firm is increasing its profit.
- At all points where MC is above MR, the firm is decreasing profit. From unit 5-7, the firm's profit will decrease.
- The firm maximises profit where MR = MC. The firm maximises its profits at unit 4.

2.

PROFIT MAXIMISATION occurs where the difference between TR and TC is at a MAXIMUM (TR − TC)

Quantity	Price	Total Revenue	Total Cost	Profit (Difference between revenue and cost)
0	5	0	1	–1
1	5	5	3	2
2	5	10	6	4
3	**5**	**15**	**10**	**5**
4	**5**	**20**	**15**	**5**
5	5	25	21	4
6	5	30	28	2

Table 6.5: Depicting Profit Maximisation

- If TC > TR the business makes a loss. If TR > TC it makes a profit.
- Maximum profit is achieved at units 3 and 4.
- Once the maximum profit is achieved, profits start to decrease with the next unit of output.
- Therefore the firm will not produce more than 4 units.

Figure 6.5 provides a clearer picture of Profit Maximisation. Interpret it!
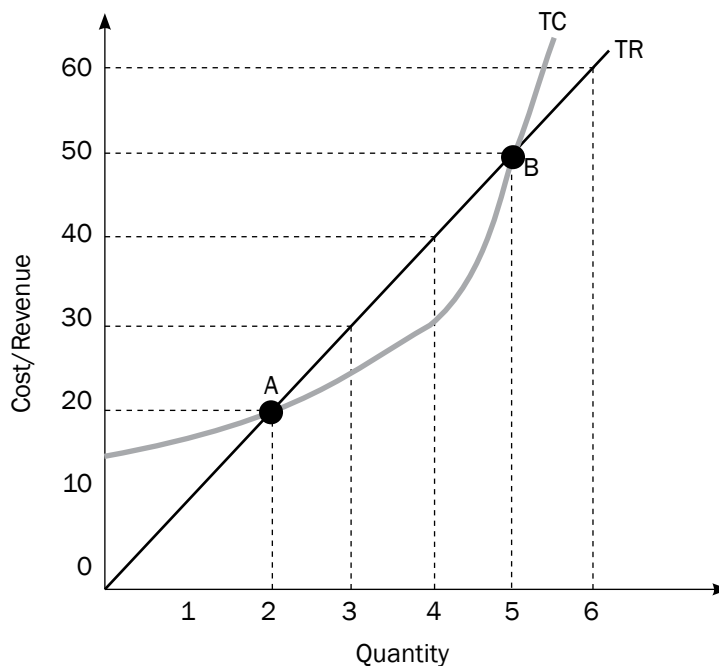
Figure 6.5: Profit maximisation

Interpretation of graph:
- At all points where TR is above TC, the firm is making a profit.
- At all points where TC is above TR, the firm is making a loss.
- The gap between TR and TC represents profit.
- Profit is maximised when the gap between TR and TC is the greatest. This is occurs at between 3 and 4 units.

6.5 Market structures

There are FOUR different **market structures**:
- Perfect competition
- Monopolistic competition
- Oligopoly
- Monopoly

Table 6.6 shows the 5 broad characteristics which distinguish the four market structures:

As you study each market structure in detail, you will be able to identify more distinguishing characteristics.

Characteristic	Perfect competition	Monopolistic competition	Oligopoly	Monopoly
Number of businesses	Enough that a single business cannot influence the market price	A very large number	So few that each business must take the actions of the others into account	One business
Nature of product	Homogenous (same kind)	Differentiated, e.g. cool drinks	Homogenous or differentiated	Unique product without any close substitutes
Market entry	Completely free	Free	From free to restricted	Blocked
Control over price	None	Few	Considerable, but less than with a monopoly	Considerable
Information	Complete	Incomplete	Incomplete	Complete
Examples	International commodity markets, e.g. gold and oil	Fast-food outlets	Petrol and oil markets	Eskom

Table 6.6: The characteristics of different market structures

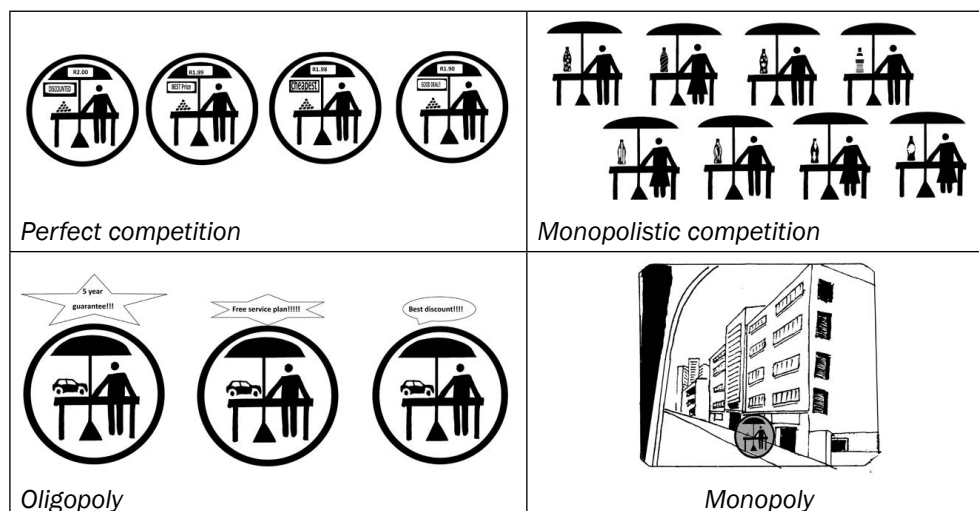The illustration below shows the four different market structures:

Figure 6.6: The four different market structures

6.6 Output, profit, losses and supply

6.6.1 The individual business

Short term equilibrium position

1. Economic profits

NB

When Average Revenue is above Average cost the firm makes an ECONOMIC PROFIT.
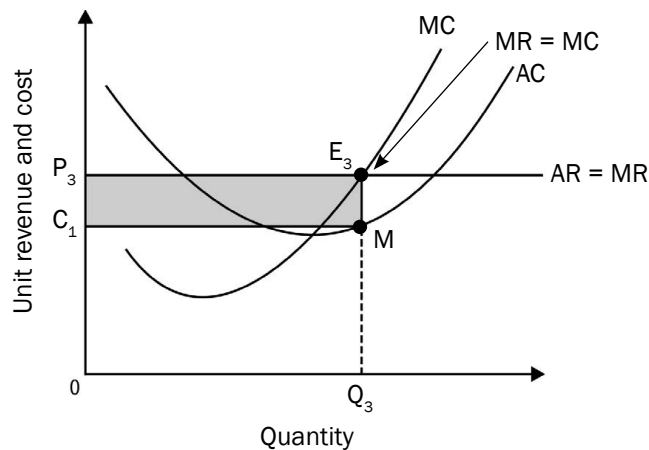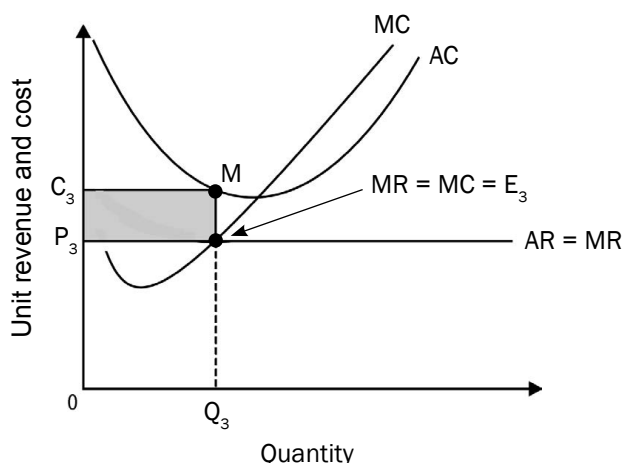

Figure 6.7: Economic profits

- Given a market price of P_3, profit is maximised where $MR = MC = P_3$.
- This occurs at a quantity of Q_3.
- At Q_3 the firm's average revenue (AR) per unit of production is P_3,
- The average cost per unit is C_1 which is lower than the price of P_3.
- The firm is making an economic profit per unit of production of $P_3 - C_1$.

Another explanation
- Total revenue equals $P_3 \times Q_3$, therefore total revenue is represented by the area $OP_3E_3Q_3$.
- Total cost equals $C_1 \times Q_3$, this is represented by the area OC_1MQ_3.
- The difference between these two areas is the economic profit which is represented by the light grey shaded area $C_1P_3E_3M$.

2. Economic Losses

Figure 6.8: Economic losses

When Average Revenue is below Average Cost the firm makes an ECONOMIC LOSS.

- Given a market price of P_3, profit is maximised where MR = MC at point E_3.
- This occurs at a quantity of Q_3.
- At Q_3 the firm's average revenue (AR) per unit of production is P_3,
- The average cost per unit is C_3 which is higher than the price of P_3.
- The firm is making an economic loss per unit of production which is equal to the difference between C_3 and P_3.

Another explanation.
- Total revenue equals $P_3 \times Q_3$, therefore total revenue is represented by the area $OP_3E_3Q_3$.
- Total cost equals $C_3 \times Q_3$, this is represented by the area OC_3MQ_3.
- The difference between these two areas is the economic loss which is represented by the light grey shaded area $C_3P_3E_3M$.
- Whether the firm should continue production would depend on the level of AR (that is P_3) relative to the firm's average variable cost.

3. Normal profits
- A firm makes normal profits when total revenue (TR) equals total costs or when average revenue (AR) equals average cost (AC).
- Normal profit is the maximum return the owner of a firm expects to receive to keep on operating in the industry.

When Average Revenue equals Average Cost the firm makes a NORMAL PROFIT.
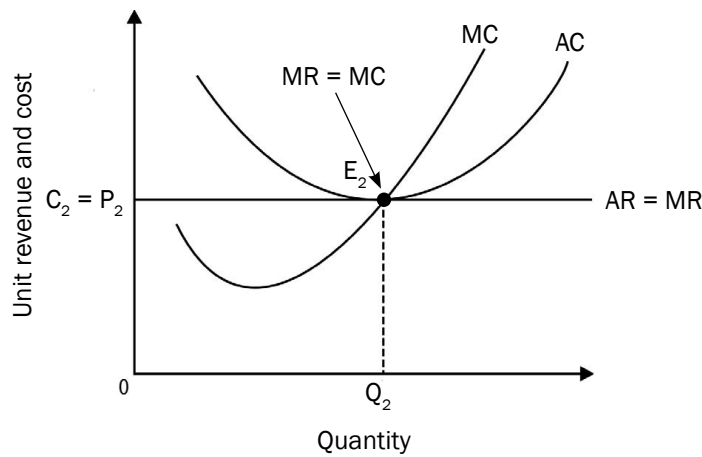
Figure 6.9: Normal profits

- Given a market price of P_2, profit is maximised where $MR = MC = P_2$.
- This occurs at a quantity of Q_2.
- At Q_2 the firm's average revenue (AR) per unit of production is P_2, which is also equal to the average cost per unit C_2 (AC).
- Since $AR = AC$, the firm earns a normal profit since all its costs are fully covered.
- Point E_2 is usually called the break-even point.

Another explanation
- Total revenue equals P_2 x Q_2, therefore total revenue is represented by the area $OP_2E_2Q_2$.
- Total cost equals $C_2 \times Q_2$, this is represented by the area $OP_2E_2Q_2$.
- Since Total revenue equals Total Cost the producer makes a normal profit.

NB The individual business can make an economic profit, economic loss or normal profit in the Short Run. They are referred to as short run equilibrium positions.

In the long run the individual business will always make normal profit.

6.6.2 The industry

The long term equilibrium for the industry and the individual firm

The impact of entry and exit on the equilibrium of the firm and industry
- Profits are a signal for the entry of new businesses.
- Losses are a signal for businesses to leave the market.
- The long-term equilibrium in the perfect market will be influenced by the entry or exit of individual businesses.
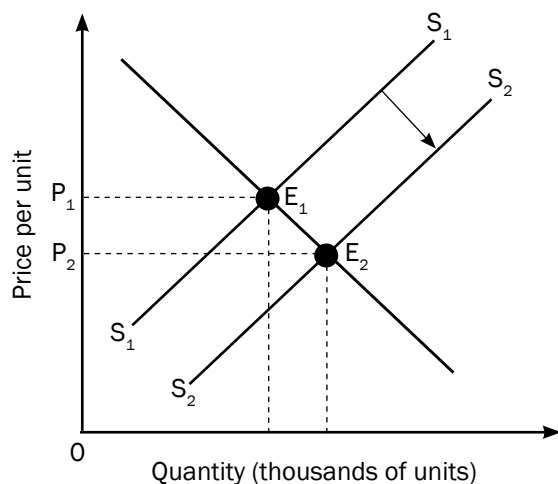
a) Entry into the apple market
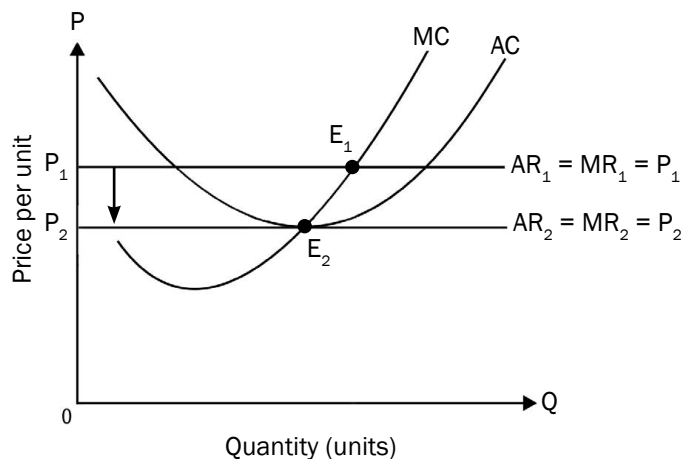
Figure 6.10 a): The industry

Figure 6.10 b): The firm

- If individual farmers are earning an economic profit at P_1.
- New farmers will enter the market, more apples will be supplied.
- The market supply curve will shift to the right from S_1 to S_2.
- The Equilibrium price will drop from P_1 to P_2.
- Individual farmers will then earn normal profits. There will be no further reason for new farmers to enter the market. The industry is in equilibrium.
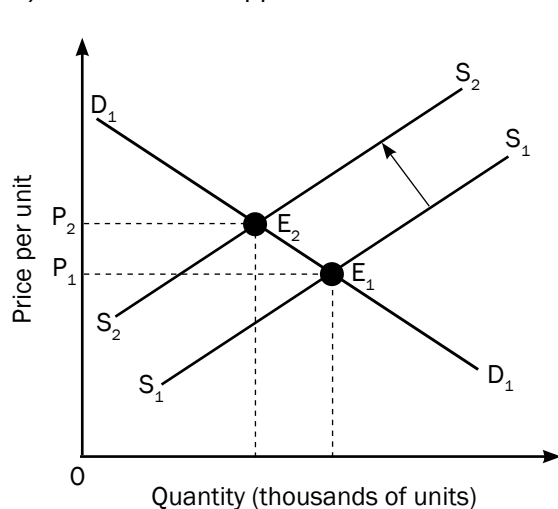
b) Exit from the apple market
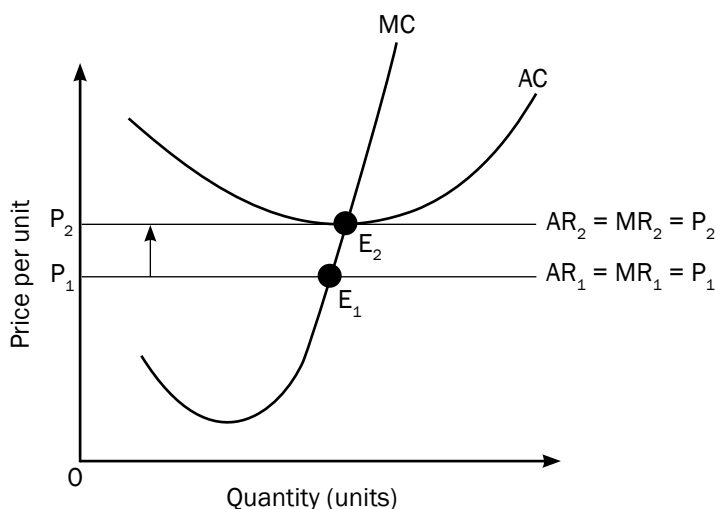

Figure 6.11 a): The industry

Figure 6.11 b): The firm

- If individual farmers are making economic losses, some farmers may leave the industry.
- When a few farmers leave the market, fewer apples will be supplied. The market supply curve will shift to the left from $S_1 S_1$ to $S_2 S_2$.
- The equilibrium price will increase from P_1 to P_2. Individual farmers will then earn normal profits. There will be no reason for individual farmers to leave the market.
- Therefore in a perfect market the long term equilibrium is achieved when individual firms earn a normal profit.
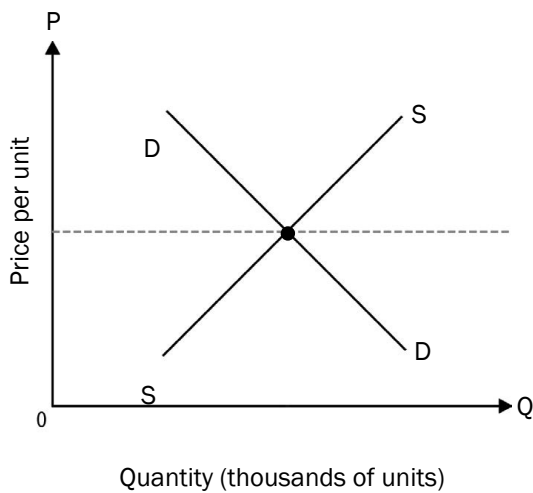
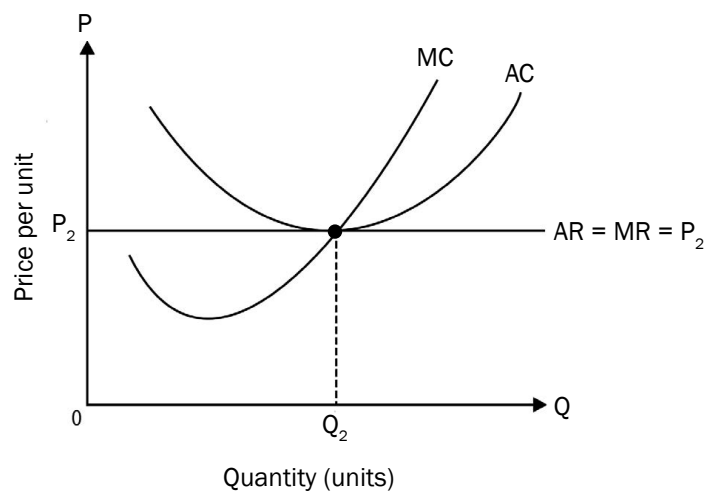c) Longterm equilibrium – normal profit

Figure 6.12 a): The industry

Figure 6.12 b): The firm

6.6.3 The supply curve of an individual firm

The short-run supply curve of an individual producer is that part of the marginal cost curve that is above the minimum average variable cost. This starts from shut-down point upwards. Below the shut-down point, the firm will not sell any goods. A firm will sell goods if the price is above the shut-down price level. This is shown in Figure 6.13 below:
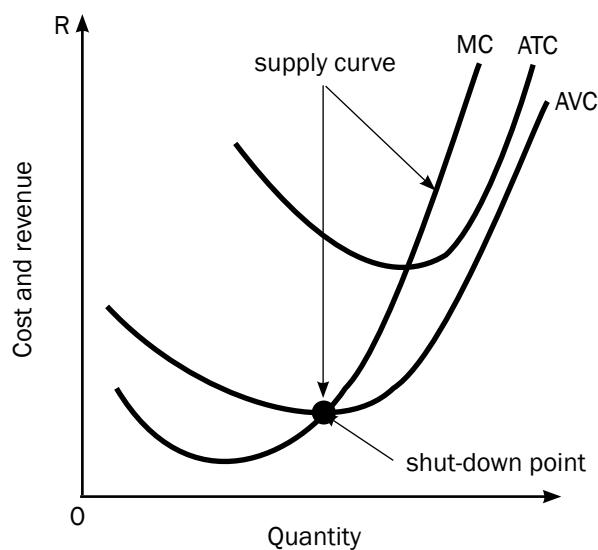

Figure 6.13: The supply curve of an individual firm

6.6.4 Shut-down/closing down point
Shut-down point

A firm will shut down if it cannot meet its average or total variable costs.

Hence we conclude that:

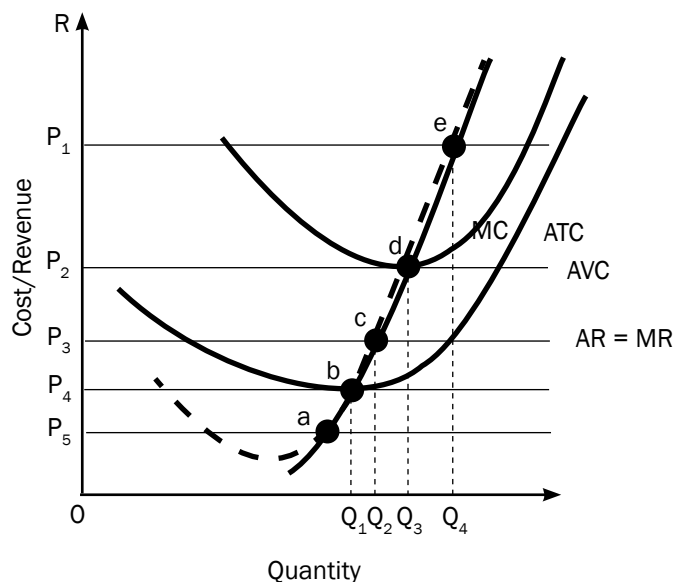> **ACTUAL SHUT-DOWN** should only take place when:
> - TR < TVC
> - AR < AVC

Figure 6.14: The shut-down/closing down point

- **Point a:** a firm will not produce here because AR < AVC
- **Point b:** it is the lowest price that the firm will charge (shut-down point). It represents the beginning of the supply curve.
- **Point c:** the firm is making an economic loss. Because AR < AC. The loss is minimised because the firm produces where MR = MC.
- **Point d:** the firm is making normal profit (breaking even) because AR = AC.
- **Point e:** the firm is making economic (supernormal) profits because AR > AC.

6.7 How to draw graphs to show various equilibrium positions

First draw your TWO axes: **Price (P)** on the vertical axis and **Quantity (Q)** on the horizontal axis. Remember, they meet at the **origin (0)**. Note that the labelling of the axes is not the same for all graphs.

In showing the various equilibrium positions the following sequence should be followed.
1. Draw the demand curve followed by the Marginal revenue curve, (in a perfect market D = MR = AR).
2. Then draw the AC curve.
3. Then draw the MC curve which must cut the AC curve at its minimum point.
4. Identify profit maximising point. MC = MR
5. Determine quantity (drop a line from the profit maximizing point to the x-axis).
6. Determine price (extend line upwards from the profit maximizing point to the demand curve) and then extend the line horizontal to the y-axis.
7. Compare AR/price to AC to determine profit or loss.

Note the following:
- To show economic profit the AC curve must cut the demand curve.
- To show normal profit the minimum point on AC curve must be at a tangent to the demand curve.
- To show economic loss the AC curve must not touch demand curve.

Everything is important – do not leave out anything! Each step counts for marks. Label all axes, curves and graphs.

6.8 Competition policies

6.8.1 Description
Competition refers to the existence of free entry into and exit from markets. This ensures that markets are not dominated by certain businesses.

6.8.2 Goals of competition policy
- To prevent monopolies and other powerful businesses from abusing their power.
- To regulate the formation of mergers and acquisitions who wish to exercise market power.
- To stop firms from using restrictive practices like fixing prices, dividing markets etc.

6.8.3 The Competition Act in South Africa
The government introduced the Competition Act 89 of 1998 to promote competition in South Africa in order to achieve the following objectives:
- promote the efficiency of the economy (its primary aim)
- provide consumers with competitive prices and a variety of products
- promote employment
- encourage South Africa to participate in world markets and accept foreign competition in South Africa
- enable SMMEs to participate in the economy
- to allow the previously disadvantaged to increase their ownership of businesses

6.8.4 Institutions

The Competition Commission
It investigates restrictive business practices, abuse of dominant positions and mergers in order to achieve equity and efficiency in the South African economy.

The Competition Tribunal
It has jurisdiction throughout the Republic. It is a tribunal of record and independent from the other competition institutions.

The Tribunal's main functions are to: grant exemptions, authorise or prohibit large mergers, adjudicate if any misconduct takes place, issue an order for costs on matters presented to it by the Competition Commission.
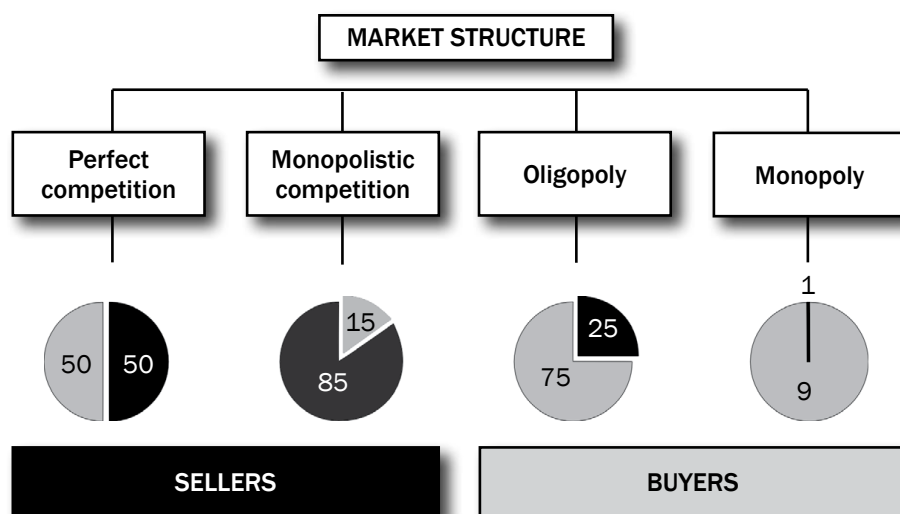
The Competition Appeal Court
Its status is similar to the High court. It has jurisdiction throughout the Republic and is a court of record.

Its main functions are to review orders made by the Competition Tribunal and amend or confirm these orders.

Activity 1

Study the diagram below and answer the questions that follow.

1. Define the concept market structure. (2)
2. How many sellers will one find in a monopoly market? (2)
3. In what market are all participants price-takers? Motivate your answer. (4)
4. Explain the shape of the individual demand curve under perfect competition. (4)
5. Under which market structure will you place the following businesses?
   - KFC
   - Eskom
   - Vodacom (6)
6. Explain in your own words the message behind the pie-charts shown above. (4)

[22]

Answers to activity 1

1. Market structure refers to how a market is organised✓✓ (2)
2. One ✓✓ (2)
3. Perfect markets ✓✓ there are too many producers and consumers for one producer to influence the price ✓✓ (4)
4. Horizontal to the quantity axis/perfectly elastic ✓✓✓✓ (4)
5. KFC: monopolistic competition ✓✓ Eskom: monopoly ✓✓ Vodacom: oligopoly ✓✓ (6)
6. Under perfect competition there are many sellers and buyers.✓Under monopolistic competition there are many sellers and a few buyers.✓ In the oligopoly there are many buyers but few sellers. ✓ In a monopoly there is only one seller but many buyers.✓ (4)

[22]

Keep going!

Dynamics of imperfect markets

There are a number of different types of **imperfect markets**, e.g. monopolies, oligopolies and monopolistic competition. An **imperfect market** is characterised by **imperfect competition**. Some participants have earlier or exclusive access to information that benefits them in the marketplace at the expense of their competitors. Certain participants will be able to access the market more easily than other participants, i.e. the supply of and demand for products will not be equal, and the matching of buyers to sellers will not be immediate.

Overview

TOPIC	CONTENT	SCOPE AND DEPTH OF EXAMINABLE CONTENT
7. Dynamics of markets: Imperfect markets	**Examine the dynamics of imperfect markets with the aid of cost and revenue curves** • **The dynamics of imperfect markets with the aid of cost and revenue curves** – Income/revenue – Revenue schedule – Average and Marginal revenue curves – Costs – Cost schedule – Average and Marginal cost curves • **Monopolies** – **Description/Definition** – **Characteristics** – **Income** – Average and Marginal revenue curves – Profit and loss in the short run – Long term equilibrium – Comparison between a monopoly and a perfect competitor (curves, higher prices, lower production, economic profit) • **Oligopolies** – **Description/Definition** – **Characteristics** – **Non-price competition** – **Collusion** – Cartels – Price leadership – **Prices and levels of production** – **Kinked demand curve** • **Monopolistic competition** – **Description/Definition** – **General characteristics** – **Non-price competition** – **Collusion** – **Prices and levels of production** – **A comparison with perfect competition**	• Briefly discuss the cost and revenue tables and graphs • Draw and interpret graphs • Define/explain the concept monopoly • Examine the characteristics in detail • Distinguish between natural and artificial monopolies • Emphasise and highlight good practical examples of businesses in this market • Explain the downward slope of the demand curve of the monopolist with the aid of a table/graph • Briefly discuss with the aid of graphs short and long run positions **HOT QUESTION: Compare a monopoly with a perfect competitor in terms of price, output and profit** • Define/explain the concept • Examine the characteristics in detail • Emphasise and highlight good practical examples of businesses in this market • Briefly discuss non-price competition • Briefly discuss collusion • Distinguish between price leadership and cartels as forms of collusion • Broadly outline prices and production levels • Broadly outline the rationale of the Kinked demand curve • Use the graph and briefly explain the kink in the kinked demand curve **HOT QUESTION: 'Collusion is a punishable offence in South Africa'. Analyse this phenomenon** • Define/explain the concept • Examine the characteristics in detail • Emphasise and highlight good practical examples of businesses in this market • Compare a monopoly to monopolistic competition • Briefly compare monopolistic competition with oligopolistic competition • Briefly discuss product differentiation in this market • Briefly discuss non-price competition in this market **HOT QUESTION: Compare monopolistic competition with perfect competition**

7.1 Key concepts

These definitions will help you understand the meaning of key Economics concepts that are used in this study guide. Understand these concepts well.

Term	Definition
Artificial monopoly	The barriers to entry are not economic in nature, but are caused by other factors. For example, a patent – this is the legal right of a holder to exclusively manufacture a product
Cartel	A group of producers whose goal is to form a collective monopoly in order to fix prices and limit supply and competition
Collusion	An arrangement between businesses with the aim of limiting competition between them by fixing prices
Imperfect market	When the market price is not a pure reflection of the scarcity (lack) of that product
Legal monopoly	Monopoly based on laws preventing other companies from competing
Monopolistic competition	A market structure with many buyers and sellers where entry is relatively easy but the product is differentiated, e.g. toothpaste
Monopoly	A market structure where only one seller (producer) operates. Entry is blocked and the product has no close substitutes
Natural monopoly	High development costs prevent others from entering the market. A single business can serve the whole market at a lower price due to economies of scale, being large e.g. water and electricity
Non-homogenous	Manufacture different variations of their products in order to make it difficult for other companies to copy that specific product
Oligopoly	A market structure where only a few sellers operate. Entry is difficult and products can be differentiated or standardised
Price leadership	A situation where one firm fixes a price and the others accept it as the market price

7.2 Monopolies

A monopoly exists when there is one seller of a good or service for which there is no close substitute.

7.2.1 Characterictics of monopolies

- There is only **one seller** of the product
- **There are barriers to entry.** These are caused by patents and other forms of intellectual property rights, control over resources, government regulations and decreasing costs.
- The monopolist is regarded as a **price maker** since it is able to influence the market price through changing the quantity it supplies to the market.
- The are **no close substitutes**. The product cannot be easily replaced. Consumers have no choice in price and quality of the product.
- There is **no competition**. One business in the market will control the supply of goods and services.
- **Products are differentiated and unique.** Monopolies manufacture a variety of products which are difficult for other companies to copy.
- **Large amounts of starting capital** are required. Large industries like Eskom and SASOL require millions of starting capital.
- **Monopolies have legal considerations.** New inventions are protected by patent rights. Services, like the Post Office are protected by law and other businesses are prohibited from entering the market.
- It is also possible for the monopolist to make an **economic profit** in the long run. This is because it faces no competition from new entrants as a result of the barriers to entry.

Monopolies can be classified as two main groups due to barriers that exist

Natural monopolies: High development costs prevent others from entering the market and therefore the government supplies the product. E.g. Electricity in South Africa is provided by the government enterprise, Eskom. It costs billions of rands to build and maintain power stations and therefore there are no other suppliers.

Artificial monopolies: Here the barriers to entry are not economic in nature. An example of a barrier is a patent. A patent is a legal and exclusive right to manufacture a product, e.g. Denel Land Systems manufacturing Casspirs.

7.2.2 The demand curve of the monopolist

- Under perfect competition the individual producer faces a horizontal demand curve where D = MR = AR, since it is a price taker.
- By contrast, the monopolist faces a **normal market demand curve** which slopes **downwards from left to right**. Here **D = AR**.
- It is also the market (or industry's) demand curve, since the monopolist is responsible for the entire output of the industry.

7.2.3 The marginal revenue curve of a monopolist

- Since a monopolist faces a downward sloping demand curve, its **marginal revenue curve and its demand curve are not the same** curve as is the case with an individual producer under perfect competition.
- Under perfect competition, the individual producer is a price taker and can sell any quantity at the market price and therefore faces a horizontal demand curve, which is also its marginal revenue curve.
- The demand curve for a monopolist, which is downward sloping, implies that, if it wishes to increase its sales by an additional unit, it must decrease the price of the product.
- The lower price applies to all its customers. Its marginal revenue – that is the amount by which total revenue increases if it sells an additional unit – will therefore be less than the price.
- The marginal revenue curve and the demand curve are therefore not the same curve. The Marginal revenue curve will be lower than the demand curve.

Activity 1

Use the table below of a typical monopolist and plot the revenue curves on the same set of axes. Notice the position of the Marginal revenue curve in relation to the Demand curve.

Price	Quantity	Total revenue	Average revenue	Marginal revenue
–	0	0	0	0
100	1	100	100	100
90	2	180	90	80
80	3	240	80	60
70	4	280	70	40
60	5	300	60	20
50	6	300	50	0
40	7	280	40	–20
30	8	240	30	–40

Answer to activity 1