



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GRADE 12

SUBJECT: ECONOMICS



WEEK 1 – 2

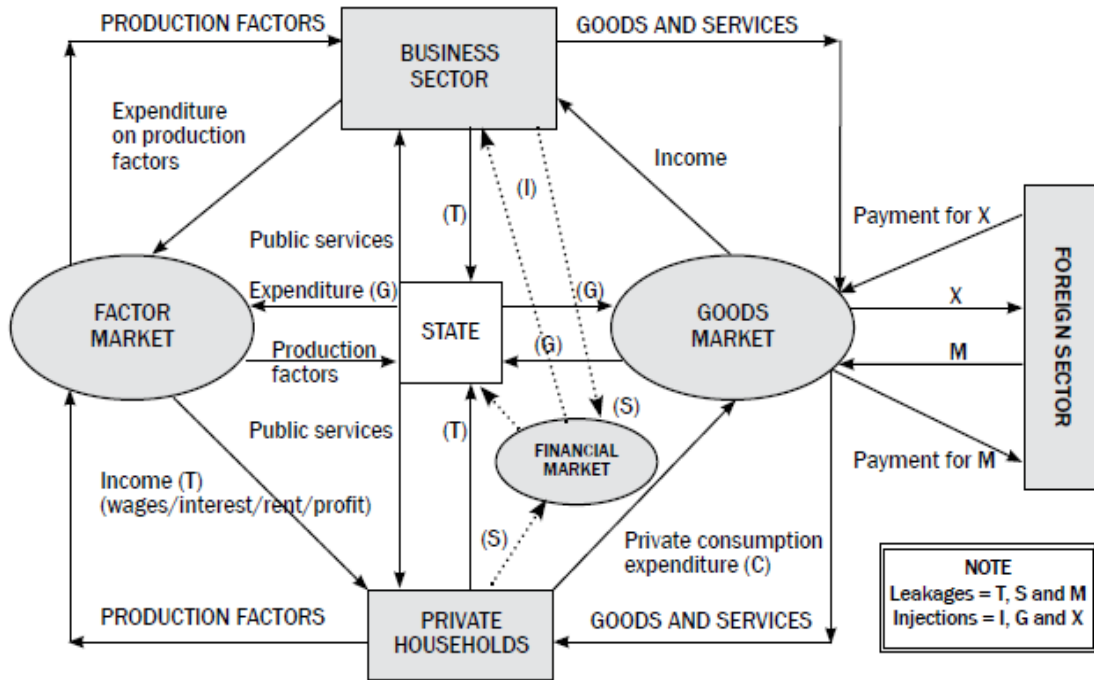
Topics:

- **CIRCULAR FLOW**
- **NATIONAL AGGREGATES**
- **MULTIPLIER**

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CIRCULAR FLOW MODEL

- **FOUR SECTOR DIAGRAM (Page 6 - Mind the Gap, 2014)**



Possible essay question

- **Discuss in detail** the markets within the FOUR-SECTOR model:
 - Factor markets: (labour, resource, capital)
 - Product markets: (consumer and capital goods, durable, semi-durable and non-durable)
 - Financial (monetary and capital)
 - Foreign exchange market
 - Link the operation of financial and foreign exchange markets to the participants of the circular flow

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.

Participants in a four-sector model:



Household sector

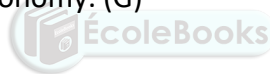
- Households are the major consumers of economic goods and services – they use their income to buy from firms.
- Households are the primary economic participants because they are the owners of the four factors of production.
- Households sell factors of production in the factor market to firms.
- Households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

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).

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)



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.)

Markets within a four-sector model:

Goods/Product/Output markets

- These are markets for consumer goods and services
In economics, a distinction is made between goods and services:
- Goods are defined as any tangible items such as food, clothing and cars that satisfy human wants or need.
Buying and selling goods that are produced in the markets e.g.
 - Capital goods market for trading of buildings and machinery
 - Consumer goods market for trading of durable consumer goods, semi-durable consumer goods and non-durable consumer goods
- Services are defined as non-tangible actions and includes wholesale and retail, transport, and financial markets



Factors/Resources/Input markets

- Households sell factors of production on the markets: rent for natural resources, wages for labour, interest for capital and profit for entrepreneurship
- The factor market includes the labour, property, and financial markets

Financial markets

- They are not directly involved in production of goods and services, but act as a link between households, the business sector, and other participants with surplus funds
- E.g. banks, insurance companies and pension funds

Money markets

- In the money market, short term funds are saved and borrowed by consumers and business enterprises
- Products sold in this market are bank debentures, treasury bills and government bonds
- The SARB is the key institution in the money market

Capital markets

- In the capital market, long term funds are borrowed and saved by consumers and business enterprises
- The Johannesburg Security Exchange is a key institution in the capital market
- Products sold in this market are mortgage bonds and shares

Foreign exchange markets

- In the foreign exchange markets, businesses buy/sell foreign currencies to pay for imported goods and services
- These transactions occur in banks and consists of an electronic money transfer from one account to another
- The most important foreign exchange markets are in London/New York/Tokyo
- The SA Rand is traded freely in these markets e.g. when a person buys travellers cheques to travel abroad

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.

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)

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



NATIONAL ACCOUNT AGGREGATES

The word 'aggregate' in Economics means total. The national accounts are an important source of information regarding the health of the economy. National accounts are identified as follows:

- ❖ Expenditure method – GDP(E)
- ❖ Income method – GDP(I)
- ❖ Production method – GDP(P)

The preparation of national accounts in South Africa is undertaken by the South African Reserve Bank. The official estimates are published in the Bank's Quarterly Bulletin. The estimates are generally presented in line with the classifications and definitions recommended by the United Nations Systems of National Accounts.

These measures of economic activity are useful not only as an indicator of economic activity within a country, but also:

- ❖ to determine the standard of living in a country
- ❖ to compare prosperity levels between countries
- ❖ to measure economic growth from one year to the next

Analysing the national account conversions:

A. Production Method/Output value added method

- Production takes place in the primary, secondary, and tertiary sectors.
- However, we cannot merely add up all the market values of all outputs of all participants, because such a calculation would amount to double counting.
- By subtracting intermediate goods from the final goods, we find the value that was added by each sector.

Below are the steps which are used to calculate GDP using the production method:

	Primary Sector
Plus	Secondary Sector
Plus	Tertiary sector
=	GROSS VALUE ADDED AT BASIC PRICES
Plus	Taxes on products
Less	Subsidies on products
=	GROSS DOMESTIC PRODUCT AT MARKET PRICE

B. Income method

- GDI adds together the income earned by the owners of the factors of production.
- Below are the steps which are used to calculate GDP using the production method:

	Compensation of employees
Plus	net operating surplus
Plus	Consumption of fixed capital
=	GROSS VALUE-ADDED AT FACTOR COST
Plus	Other taxes on production
Less	Other subsidies on production
=	GROSS VALUE ADDED AT BASIC PRICES
Plus	Taxes on products
Less	Subsidies on products
=	GROSS DOMESTIC PRODUCT AT MARKET PRICES (GDI)

- Compensation of employees (1) consists mainly of gross salaries and wages.
- Net operating surplus (2) includes mainly the total value of goods and services that are produced, less cost. Cost has 3 elements:
 - cost of intermediate goods and services

- cost of remuneration of employees
 - cost of the consumption of fixed capital
 - The net operating surpluses show profits and surpluses before taxation
- C. Expenditure method**
- GDP(E) measures total expenditure of final goods and services produced within the borders of a country. $GDP(E) = C + I + G + (X - Z)$

Below are the steps which are used to calculate GDP using the production method:

Plus	Final consumption expenditure by households (C)
Plus	Final consumption expenditure by government (G)
Plus	Gross capital formation (I)
Plus	Residual item
=	GROSS DOMESTIC EXPENDITURE
Plus	Exports of goods and services (X)
Less	imports of goods and services (M)
=	EXPENDITURE ON GDP at MARKET PRICES



D. Conversion of domestic figures to national figures

	GDP at market prices
Plus	Factor income earned abroad by South Africans
Less	Factor income earned in South Africa
=	GNI at market prices



Adobe Acrobat
Document

Quarterly Bulletin -Tables for SARB – DEC 2020

THE MULTIPLIER

- This concept was developed by the British economist J.M. Keynes. His theory was that any increase in injections into the economy (investments, government expenditure or exports) would result in a proportionally larger increase in the national income.
- The economy is in equilibrium if LEAKAGES (WITHDRAWALS) = INJECTIONS
- $L = J$ or $S + T + M = I + G + X$

- The multiplier is based on the principle that spending by one person becomes the income of another person, which then becomes that person's spending, which turns into the income of yet another person (re-spending effect).

Example

- The Government decides to increase its spending by building new roads. This creates jobs and raises the level of employment. These newly employed people then use their income to purchase consumer goods. This stimulates the demand for goods and services and results in an increase in production, which will in turn increase the level of employment even further. This raises income and stimulates greater consumer demand and so on and so on.
- This implies that a multiplier process occurs in the economy when injections into the circular flow of spending, production and income take place.
- The multiplier refers to the ratio used to work out the difference between the initial investment and the eventual change in income. The size of the multiplier differs according to the extra income produced or created in each round of spending, but this depends on the marginal propensity to consume (mpc), that is, how many of every rand income earners are willing to spend.

Formula

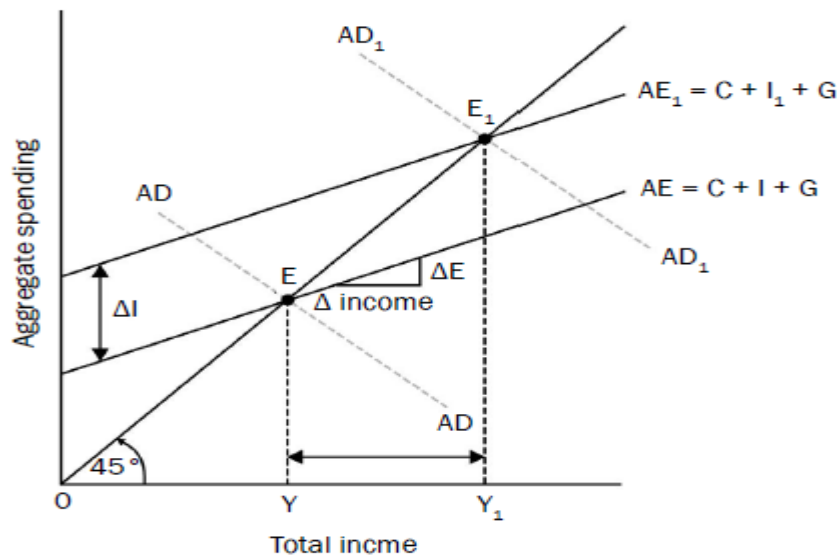
$$\text{Multiplier} = \frac{1}{(1-mpc)} \text{ or } \frac{\Delta Y}{\Delta C}$$



The multiplier in a two-sector model

- 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.
- For example:
 $Y = R100\ 000$
 $S = 40\ 000 = 40\% \quad 0.4$
 $E = 60\ 000 = 60\% \quad 0.6$
- Marginal propensity to consume (mpc) = 0.6
- Marginal propensity to save (mps) = 0.4
- The total of mpc + mps is always = 1

The multiplier in a graph



In the above graph:

- E = Original equilibrium.
- Y = Original income.
- Change in investment spending is added.
- The AE curve (Aggregate expenditure) shifts upwards to AE1.
- Total spending at each level of income (Y) increases to Y1.
- Planned spending determines aggregate expenditure. Aggregate Demand increases to AD1.
- The new equilibrium position is at E1.
- The multiplier effect shows that the increase in Y (ΔY) is greater than the change in I (ΔI).
- National Income changes when:
 - Total spending \neq to Production
 - Total Demand \neq to Total supply
 - Planned leakages \neq to planned Injections

The multiplier in a three-sector model:

- When a government sector is added to the circular flow model, more leakages and injections occur.
- The injections are investment spending and government spending.
- The leakages are as follows:
 - a) mps = marginal propensity to save
 - b) mrt = marginal rate of taxation

The formula to calculate the multiplier in a three-sector model: $\alpha = 1/1 - mpc = 1/mps + mpt$

The multiplier in a four-sector model:

- 1 minus mpc is no longer equal to the mps, because a four-sector circular flow includes a government and a foreign sector.
- $1 - mpc$ is equal to the proportion of any increase in income that leaks out of the multiplier.
- The following leakages are found:
 - a) mps = marginal propensity to save
 - b) mrt = marginal rate of taxation
 - c) mpm = marginal propensity to import
- The formula to calculate the multiplier in a four-sector economy is:

$$\alpha = 1/1 - mpc = 1/mps + mpt + mpm$$
- Savings, taxes, and imports make the multiplier smaller than it would otherwise be.
- The larger the mps, the mpt and the mpm, the smaller the multiplier. If leakages are higher, the multiplier will be smaller and vice versa.

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 which would lead to proportionate increase in national income.
- The extra spending would have a knock-on effect and create even more spending.
- Suppose the mpc is 0.6. Use the multiplier formula to calculate the eventual change in aggregate income if there was an injection of R5 billion into the economy.
- The following steps should be followed to calculate determine the eventual change in aggregate income:
 - $$K = \frac{1}{(1 - mpc)}$$

$$= \frac{1}{(1 - 0.6)}$$

$$= \frac{1}{0.4}$$

$$= 2.5 \text{ (The multiplier)}$$

$$= 2.5 \times 5 \text{ billion}$$
 - = **12.5 billion** (the eventual change in aggregate income)



ACTIVITIES:

TYPICAL EXAM QUESTIONS

MULTIPLE CHOICE

1.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number.

1.1.1 Which one of the following is TRUE in the product market in the circular flow model?

- A. Households sell goods and services to businesses
- B. Households sell resources to businesses
- C. Businesses sell resources to households
- D. Businesses sell goods and services to

1.1.2. In the circular flow model, which of the following is TRUE in a resource or factor market?

- A. Households buy resources from businesses
- B. Households sell resources to businesses
- C. Businesses sell goods and services to households
- D. Businesses sell resources to households

1.1.3 Savings flow back into the circular flow as ...

- A. government spending.
- B. investment.
- C. exports.
- D. imports.



1.1.4 Which of the following is a monetary flow in the factor market?

- A. The flow of factors of production from households to firms.
- B. The spending on goods and services from households to firms.
- C. The income from firms to households.
- D. The flow of goods and services from households to firms

1.1.5 Which of the following is a real flow in the goods market?

- A. The spending on goods and services from households to firms.
- B. The flow of the factors of production from firms to households.
- C. The flow of goods and services from households to firms.
- D. The flow of goods and services from firms to households.

1.1.6 South Africa uses a system of national accounts recommended by the ...

- A. South African Reserve Bank.
- B. World Bank.
- C. United Nations.
- D. International Monetary Fund.



1.1.7 Consumption of fixed capital is used to calculate GDP at ...

- A. basic prices.
- B. market prices.
- C. selling prices
- D. factor cost.

1.1.8 When $I + G + X > S + T + M$, the level of national income will ...

- A. rise.
- B. fall.
- C. remain the same.
- D. fluctuate.

1.1.9 Taxes and subsidies on ... are considered when calculating GDP at basic prices.

- A. exports
- B. production
- C. commodities
- D. imports

1.1.10 The market for long-term financial instruments is called a ...market.

- A. free
- B. foreign exchange
- C. capital
- D. money

(10 x 2) (20)

1.2 Choose a description from COLUMN B that matches the item in COLUMN. Write only the letter (A-E) next to the question number (1.2.1 – 1.2.4) in the ANSWER BOOK.

Column A	Column B
1.2.1 Leakages	A. The portion of income that is not consumed
1.2.2 Foreign exchange	B. The ratio of one country's currency to another country's currency
1.2.3 Savings	C. Savings, taxes
1.2.4 Money market	D. Government spending, investments
1.2.5 Injections	E. Short term investments
	(5 x 1) (5)



**1.3 Give the economic term/concept for each of the following descriptions.
Write only the term/concept next to the question number.**

- 1.3.1 An initial change in spending results in a much bigger change in national income.
- 1.3.2 The sector that needs to be included for the economy to be regarded as an open economy.
- 1.3.3 The inflow of money into the circular flow.
- 1.3.4 The market value of all final goods and services produced in the economy in a given year
- 1.3.5 Goods used as inputs to produce other goods and services. (5 x 1) (5)

SECTION B

QUESTION 2

2.1 Lower cognitive (Easy questions) (2 marks)

HINT: When the question requires you to “List” or “Name”, you need not write a sentence. This MUST be done in bullet form.
This type of questions is found on the question paper: 2.1.1; 3.1.1; 4.1.1

- 2.1.1 Name TWO examples of injections.
- 2.1.2 Name TWO examples of leakages.
- 2.1.3 Name TWO types of markets in the circular flow.
- 2.1.4 Name any TWO participants in a closed economy.
- 2.1.5 Name any TWO methods used to calculate GDP.

2.2 Middle order (Moderate questions) (2 marks)

HINT: This type of question is typical deep-level thinking. You need to answer this question in a sentence that is comprehensive and it should answer the question.
This type of questions is found on the question paper: 2.1.2; 3.1.2; 4.1.2

- 2.2.1 Why are households regarded as the important participant in the circular flow?
Prelim 2019? (2)
- 2.2.2 How will the scenario, $I+G+X>S+T+M$, effect the national income? (2)
- 2.2.3 What effect does taxes and subsidies have on the calculation of basic prices? (2)
- 2.2.4 Why does South Africa prescribe to the System of National Accounts as stipulated by the International Monetary Fund (IMF)? (2)
- 2.2.5 What is the effect of an increased marginal propensity to consume on the multiplier? (2)
- 2.2.6 How will the multiplier be influenced when foreign direct investments increase in the local economy (2)
- 2.2.7 How will national income be influenced by leakages in the economy? (2)

QUESTION 3: PARAGRAPH QUESTIONS

Hint: When a question requires to “explain”, “discuss”, “differentiate”, etc. You need to answer in full sentences. The answers are found in textbooks
This type of questions is found on the question paper: 2.4; 3.4 and 4.4

3.1 Middle order (easy to moderate questions)

- 3.1.1 Describe the flows between firms and households through the factor market. (8)
- 3.1.2 Explain the flows between firms and households through the goods market. (8)
- 3.1.3 Describe the impact of increased consumer expenditure in the circular flow. (8)
- 3.1.4 Explain the role of the business sector (firms) in the circular flow. (8)
- 3.1.5 Link the role of the financial and foreign markets to the other participants in the circular flow. (8)
- 3.1.6 Differentiate between *taxes on production* and *taxes on products*. (8)
- 3.1.7 Differentiate between *subsidies on production* and *subsidies on products*. (8)



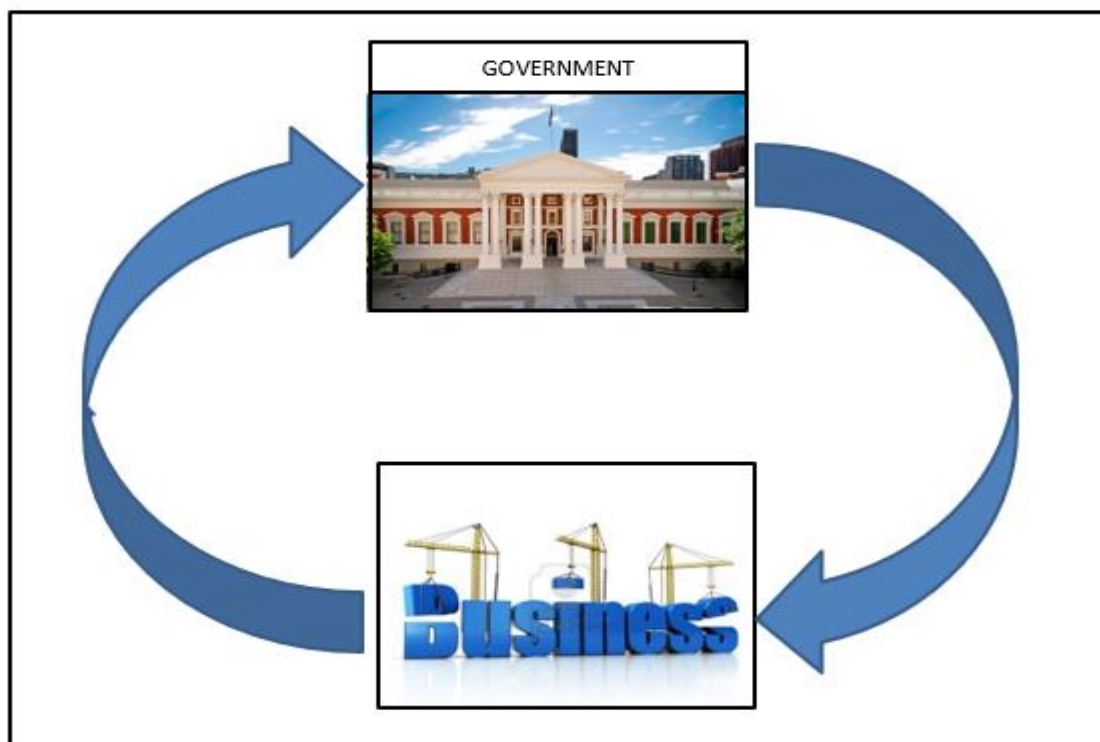
3.2 Higher order (moderate to difficult questions)

HINT: The answers to these questions are not usually found in textbooks. You must apply your content knowledge to answer them. You need to do some deep-level critical thinking. You need to answer in full sentences.
This type of questions is found on the question paper: 2.5; 3.5 and 4.5

- 3.2.1 Why is savings regarded as a leakage in the circular flow model? (8)
- 3.2.2 How can households, as an important participant in the circular flow model, contribute in building the economy? (8)
- 3.2.3 Justify the equation $L = J$ and illustrate its component elements. (8)
- 3.2.4 How is expenditure related to income and production? (8)
- 3.2.5 How is Gross Domestic Product - GDP(P) derived by using the expenditure method - GDP€ (8)
- 3.2.6 Government inject R20 million in the economy as an investment to improve infrastructure. Calculate the multiplier effect of this investment on the economy if the marginal propensity to save (*mps*) is 0,2. Show ALL calculations. ES June 2019 (8)

QUESTION 4 -DATA RESPONSE QUESTIONS

4.1 Study the diagram below and answer the questions that follow.



- 4.1.1 Which other participant, in a closed economy, is not included in the diagram above? (1)
- 4.1.2 Name the other participant that cause the economy to become open. (1)
- 4.1.3 Briefly describe the term *circular flow*. (2)
- 4.1.4 What real flow is taking place from the business sector to the public sector? (2)
- 4.1.5 How will taxation influence the circular flow model? (4)

4.2 Study the information below answer the following questions. (Developers own)

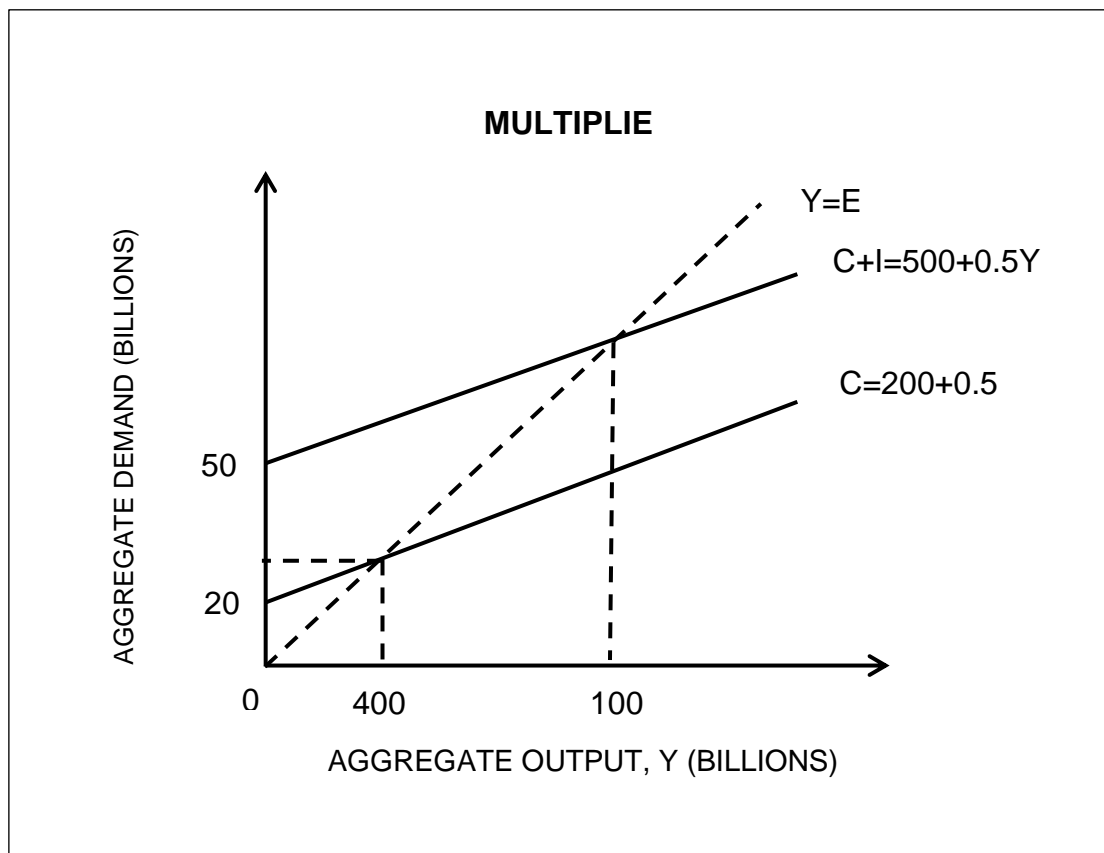
NATIONAL INCOME ACCOUNTS OF SOUTH AFRICA (Market prices)		
	R millions	
	2018	2019
Compensation of employees	2 320 179	2 418 544
Net operating surplus	1 249 182	1 296 696
Consumption of fixed capital	676 486	713 079
Gross value added at factor cost	4 245 848	4 428 317
Other taxes on production	101 936	105 061
Less subsidies on production	6 492	9 796
(A)	4 341 292	4 523 580
Taxes on products	545 558	564 866
Less subsidies on products	12 951	10 821
Gross Domestic Product at market prices	4 873 899	5 077 625

Adapted source: SARB Quarterly Bulletin, March, 2020

- 4.2.1 What method of calculation was used in the table above to calculate the Gross Domestic Product? (1)
- 4.2.2 Name the missing item labelled (A) (1)
- 4.2.3 Briefly describe the item '*net operating surplus*'. (2)
- 4.2.4 Why was the subsidies on products in 2019 less than the subsidies on products in 2018? (2)
- 4.2.5 Calculate the compensations of employees as a percentage of GDP at market prices in 2019. Show ALL calculations. (4)

4.3 Study the information below and answer the questions that follow.

(Source: eSSIP, 2020, Term 1)



- 4.3.1 Identify the original consumption function on the graph above. (1)
- 4.3.2 What is the marginal propensity to consume (*mpc*) on the graph? (1)
- 4.3.3 Briefly describe the term *induced consumption*. (2)
- 4.3.4 How will an increase in government spending affect the multiplier? (2)
- 4.3.5 Use the formula $K = \Delta Y / \Delta I$ to calculate the multiplier from the scenario. Show ALL calculations. (4)



ESSAY (DBE – 2020)

- Discuss the role of markets in a circular flow model. (26 marks)
- How can the business sector contribute more positively to the economy. (10 marks)



Solutions

MARKING GUIDELINE**CIRCULAR FLOW****MULTIPLE CHOICE**

1.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number.

- 1.1.1 A. Households sell goods and services to businesses ✓✓
 1.1.2 B. Households sell resources to ✓✓
 1.1.3 B. investment. ✓✓
 1.1.4 C. The income from firms to households. ✓✓
 1.1.5 D. The flow of goods and services from firms to households. ✓✓
 1.1.6 C. United Nations ✓✓
 1.1.7 D. factor cost ✓✓
 1.1.8 A. rise ✓✓
 1.1.9 B. production ✓✓
 1.1.10 C capital ✓✓

(10 x 2) (20)

1.2 Choose a description from COLUMN B that matches the item in COLUMN. Write only the letter (A-E) next to the question number (1.2.1 – 1.2.4) in the ANSWER BOOK.

- 1.2.1 Savings, taxes ✓
 1.2.2 The ratio of one country's currency to another country's currency ✓
 1.2.3 The portion of income that is not consumed ✓
 1.2.4 Short term investments ✓
 1.2.5 Government spending, investments ✓

(5 x 1) (5)

1.3 Give the economic term/concept for each of the following descriptions. Write only the term/concept next to the question number.

- 1.3.1 Multiplier ✓
 1.3.2 Foreign sector ✓
 1.3.3 Injections ✓
 1.3.4 Gross Domestic Product ✓ (*Not GDP*)
 1.3.5 Intermediate goods ✓

(5 x 1) (5)

SECTION B**QUESTION 2**

2.1.1 Name TWO examples of injections.

- Government spending ✓
- Investments ✓
- Export earnings ✓

Any (2 x 1) (2)

2.1.2 Name TWO examples of leakages.

- Taxes✓
- Savings✓
- Import expenditure✓

Any (2 x 1) (2)

2.1.3 Name TWO types of markets in the circular flow.

- Factor market✓
- Goods market✓
- Financial market✓

Any (2 x 1) (2)

2.1.4 Name any TWO participants in a closed economy.

- Households✓
- Firms✓
- Government✓✓

Any (2 x 1) (2)

2.1.5 Name any TWO methods used to calculate GDP.

- Income method✓
- Production method✓
- Expenditure method✓



Any (2 x 1) (2)

2.2 Middle order (moderate)

(2 marks)

2.2.1 Why are households regarded as the most important participant in the circular flow?

- They are the owners of all the production factors. ✓✓

(2)

2.2.2 How will the scenario, $I+G+X>S+T+M$, effect the national income?

- The national income will rise because the injections are larger than the leakages. ✓✓

(2)

2.2.3 What effect does taxes and subsidies have on the calculation of basic prices?

- It will convert basic prices to Gross Domestic Product at market prices. ✓✓

(2)

2.2.4 Why does South Africa prescribe to the System of National Accounts as stipulated by the International Monetary Fund (IMF)?

- SA must comply with international best practices in terms of the provisioning of national accounts data. ✓✓

(2)



2.2.5 What is the effect of an increased marginal propensity to consume on the multiplier?

- The multiplier will increase as spending increase in the circular flow. ✓✓ (2)

2.2.6 How will the multiplier be influenced when foreign direct investments increase in the local economy?

- The multiplier will increase because more money flows into the economy. ✓✓ (2)

2.2.7 How will national income be influenced by leakages in the economy? (2)

- The national income will decrease because less money will be circulating in the economy. ✓✓ (2)

QUESTION 3: PARAGRAPH QUESTIONS

3.1 Middle order (easy to moderate)

3.1.1 Describe the flows between firms and households through the factor market.

Real flow

- There is a flow of factors of production through the factor market from households to firms. ✓✓
- An example of this flow would be you leaving your house in the morning to go to work at a firm (real flow of labour) ✓✓
- Then there is also the flow of capital, land and entrepreneurs from households to firms. ✓✓
- This real flow of the factors of production takes place through the factor market. ✓✓

Money flow

- There is an income flow through the factor market as firms pay households for the use of the factors of production owned by households. ✓✓
- Rent for land, interest for capital and profits for entrepreneurs are all nominal (monetary) flows and part of the income flow. ✓✓ (2 x 4) (8)

3.1.2 Explain the flows between firms and households through the goods market.

Real flow

- Firms use the factors of production to produce goods and services that they make available to households through the goods market. ✓✓
- This is the real flow of goods and services from firms to households. ✓✓

Money flow

- Households use their income to pay for the goods and services they receive from firms. ✓✓
- This payment for goods and services is a monetary flow from the households to firms through the goods market. ✓✓ (2 x 4) (8)

3.1.3 Describe the impact of increased consumer expenditure in the circular flow.

- As spending by households' increases, the monetary flow from households to firms increases through the goods market. ✓✓
- As the goods move from firms to households, the real flow from firms to households' increases. ✓✓
- This increased spending by households causes firms to increase production since the demand for goods is higher. ✓✓
- As firms increase production, the production flow increases, and more factors of production are employed. ✓✓
- There is thus an increase in the income flow from firms to households through the factor market. ✓✓

3.1.4 Explain the role of the business sector (firms) in the circular flow.

- 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.) ✓✓
 - Business pays tax to the Government on profits made. ✓✓
 - Business pays for the use of public goods and services supplied by government. ✓✓
 - Businesses export goods to other countries and import goods from other countries. ✓✓
- (Accept any other correct relevant response)

3.1.5 Link the role of the financial and foreign markets to the other participants in the circular flow.

Financial markets

- The savings of household, firms and the government sector gets accumulated in the financial market. ✓✓
- It invests money by lending money to households, firms and the government. ✓✓
- The inflows of money in the financial market are equal the outflows of money. ✓✓
- It makes the circular flow of income complete and continuous. ✓✓

Foreign sector

- Foreign sector receives revenue from firms, households and government for export of goods and services. ✓✓
- It makes payments for imports from firms and the government. ✓✓
- It makes payments for the factors services to the households. ✓✓

3.1.6 Differentiate between taxes on production and taxes on products.

Taxes on production

- Taxes on production are imposed on firms during the production process. ✓✓
- It does not depend on the actual value of production. ✓✓
- E.g. payroll taxes, recurring taxes on land, buildings or other structures, registration fees, stamp duties etc. ✓✓

Taxes on products

- These are taxes paid on finished products. ✓✓
 - Product taxes are paid on the actual volume of production. ✓✓
 - It is paid per unit of product. For example, excise duty, service tax, sales tax etc. ✓✓
- (4x2) (8)

3.1.7 Differentiate between *subsidies on production* and *subsidies on products*.

Subsidies on production

- A production subsidy is a payment made by a government to firms in an industry based on the output or production. ✓✓
- Subsidies on production is used to stimulate output for a good, due to its strategic importance. ✓✓

Subsidies on products

- Subsidy of products are subsidies payable per unit of a good or service produced or imported. ✓✓
 - A subsidy on a product usually becomes payable when the good is produced, sold or imported. ✓✓
 - The subsidy may be a specific amount of money per unit. ✓✓
- (4x2) (8)

3.2 Higher order (moderate to difficult questions)

3.2.1 Why is savings regarded as a leakage in the circular flow model?

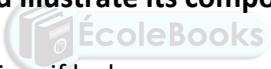
- If everyone in the model spends all the money they receive in income, the business sector has enough to hire employees and buy resources. ✓✓
- However, when households decide to **save** some of their income, they reduce their purchases of goods and services as they put money into bank accounts, mutual funds and other savings instruments. ✓✓
- With that money leaking out of the circular flow, businesses lack the cash to hire and purchase resources, which could lead to unemployment and recession without a way to introduce the money back into the system. ✓✓

- The solution to this dilemma is to add a financial sector. The financial sector takes the savings and lends it to businesses, and in doing so, it injects the leaked money back into the system. ✓✓ (4 x 2) (8)

3.2.2 How can households, as an important participant in the circular flow model, contribute in building the economy?

- The owners of the four factors of production can try to increase the quality thereof to make a better contribution to the economy. ✓✓
- Households can sell their factors of production at lower rates to help lower the inflation rate and build the economy. ✓✓
- Households (labourers) can limit labour unrest and strikes where they usually claim unrealistic wage/ salary increases (much more than the current inflation rate). ✓✓
- Households can increase their savings and contribute indirectly to increased production in the manufacturing sector. ✓✓
- Households can limit their spending on luxury goods that will limit the aggregate demand and stabilise prices. ✓✓
- Households can concentrate on buying South African goods to stimulate local production, future exports and increased penetration of markets internationally. ✓✓
- Households can pay their relevant taxes and claim better service delivery and infrastructure development. ✓✓ (4 x 2) (8)

3.2.3 Justify the equation $L = J$ and illustrate its component elements.

- 
- The economy is in equilibrium if leakages are equal to injections($L = J$) ✓✓
 - $L (S + T + M) = J (I + G + X)$ ✓✓
 - The process of restoring equilibrium causes changes to national income as follows:
 - National income will rise when: $I + G + X > S + T + M$, injections are more than leakages ✓✓
 - The amount of injections more than leakages increases demand; to satisfy the additional demand, more goods and services will be produced, and more income will be generated ✓✓
 - National income will fall when: $I + G + X < S + T + M$. Injections are less than leakages. ✓✓
 - The amount of leakages more than injections reduces the existing money flow. ✓✓ (4 x 2) (8)

3.2.4 How is expenditure related to income and production?

- If the government decides to embark on a big infrastructure programme, such as bus lanes in the major cities (Pretoria and Johannesburg). ✓✓
- This project will require additional workers, who in turn will earn an income ✓✓
- These individuals now have an income, which will be used to purchase consumer goods and services. ✓✓
- This will stimulate the demand for goods and services, which will lead to increased production. ✓✓
- The increase in production will need additional employees to assist in providing for more goods and services. ✓✓



- These employees will also add to greater demand, which will increase levels of production, which in turn increases the levels of employment and income, stimulating greater consumer demand. ✓✓
- (4 x 2) (8)

3.2.5 How is Gross Domestic Product (GDP) at market prices derived by using the Expenditure method – GDP(E)?

- Expenditure on GDP measures total expenditure on final goods and services produced within the borders of the country. ✓✓
- It is calculating by adding together expenditures of the participants in an open economy/(households, state, businesses) ✓✓
- Households spend on durable goods/ semi-durable goods/ non- durable goods and services. ✓✓
- State spends on public goods ✓
- Businesses spends on capital goods ✓
- The residual item is included as balancing item. ✓✓
- The exports of the foreign sector are added and the imports are subtracted. ✓✓
- $GDP(E) = C + G + I + (X - M)$ ✓✓ (4 x 2) (8)

3.2.6 Government inject R20 million in the economy as an investment to improve infrastructure. Calculate the multiplier effect of this investment on the economy if the marginal propensity to save (mps) is 0,2. Show ALL calculations. ES June 2019

Calculation of Multiplier: $K = 1 / 1 - MPC$ ✓ **OR** $K = 1 / MPS$ ✓
 $1 / 1 - 0.8$ ✓ $1 / 0.2$ ✓
 $1 / 0.2$ ✓ $K = 5$ ✓✓
 $K = 5$ ✓

Investment is R20 million, therefore the multiplier effect (benefit to the economy) will be:
 R 20m X 5 ✓✓ **OR** $\frac{R20\ 000\ 000}{0.2}$ ✓✓
Multiplier effect = R100 000 000 ✓✓

Multiplier effect = R100 000 000 ✓✓

(8)

DATA RESPONSE QUESTIONS

4.1 Study the diagram below and answer the questions that follow.

4.1.1 Which other participant, in a closed economy, is not included in the diagram above?

- households ✓ (1)

4.1.2 Name the other participant that cause the economy to become open.

- foreign sector ✓ (1)

4.1.3 Briefly describe the term *circular flow*.

- The circular flow is an economic model that shows the flow of money through the economy. ✓✓ (2)

4.1.4 What real flow is taking place from the business sector to the public sector?

The flow of goods and services ✓✓ (2)

4.1.5 How will taxation influence the circular flow model?

- Taxes are money received by government paid by other participants ✓✓
- It represents a leakage; money is taken out of circulation. ✓✓
- It reduces the amount of money that flow in the economy. ✓✓
- Aggregate demand and production output will be reduced/lower. ✓✓
- This is, however, a temporary condition as government inject these funds back into circulation through the provision of public goods and services. ✓✓

(4)

4.2 Study the information below answer the following questions.

4.2.1 What method of calculation was used in the table above to calculate the Gross Domestic Product?

- Income method ✓ (1)

4.2.2 Name the missing item labelled (A)

- GDP at basic prices ✓ (1)

4.2.3 Briefly describe the item '*net operating surplus*'. (2)

- It is the after-tax surplus of the remuneration of the factors of production ✓✓ (2)

4.2.4 Why was the subsidies on products in 2019 less than the subsidies on products in 2018?

- The government could have reduced the number of subsidies per unit on a good or service produced or imported. ✓✓ (2)

4.2.5 Calculate the compensations of employees as a percentage of GDP at market prices in 2019. Show ALL calculations.

$$\frac{2\,418\,544}{5\,077\,625} \times \frac{100}{1}$$

= 47.63% ✓✓ (4)



4.3 Study the information below and answer the questions that follow.

4.3.1 Identify the original consumption function on the graph above.

- $C = 200 + 0.5Y$ ✓ (1)

4.3.2 What is the marginal propensity to consume (mpc) on the graph?

- $mpc = 0.5$ ✓ (1)

4.3.3 Briefly describe the term *induced consumption*.

- Induced consumption is the portion of consumption that varies with disposable income. When a change in disposable income “induces” a change in consumption on goods and services. ✓✓ (2)

4.3.4 How will an increase in government spending affect the multiplier?

- An increase in government spending increases the amount of money in circulation. This will stimulate spending and therefore increases the multiplier effect. ✓✓ (2)

4.3.5 Use the formula $K = \Delta Y / \Delta I$ to calculate the multiplier from the scenario. Show ALL calculations.

$$K = \Delta Y / \Delta I \checkmark = 600/300 \checkmark = 2 \checkmark \checkmark$$

The multiplier is 2



(4)



QUESTION 5 - ESSAYS

- **Discuss the role of markets in a circular flow model.** (26 marks)
- **How can the business sector contribute more positively to the economy.** (10 marks)

INTRODUCTION

The economy of a country is regarded as an open economy because of the presence of households, producers, government, the foreign sector and the financial sector as active participants in the economy. Markets link the participants in the economy ✓✓

BODY: MAIN PART

PRODUCT / GOODS / OUTPUT MARKETS ✓

- These are the markets for consumer goods and services ✓✓
- Goods are defined as tangible items, like food, clothes, cars, etc. that satisfies some human wants or needs ✓✓
- Buying and selling of goods that are produced in markets e.g. ✓✓
- Capital Goods market for trading of buildings and machinery ✓✓
- Consumer goods market for trading of durable consumer goods, semi-durable consumer goods and non-durable consumer goods. ✓✓
- Services are defined as non-tangible actions and include wholesale and retail, transport and financial markets. ✓✓

FACTOR / RESOURCE / INPUT MARKETS ✓

- Households sell factors of production on the markets: rent for natural resources, wages for labour interest for capital and profit for entrepreneurship ✓✓
- The factor market includes the labour, property and financial markets. ✓✓
- The market where services of factors of production are traded e.g. labour is hired and capital is borrowed – these services earn wages, interest, rent and profits ✓✓

FINANCIAL MARKETS ✓

- They are not directly involved in the production of goods and services, but act as a link between households, the business sector and other participants with surplus funds ✓✓
- E.g. banks, insurance companies and pension funds ✓



MONEY MARKETS ✓

- In the money markets short term loans, and very short term funds are saved and borrowed by consumers and business enterprises ✓✓
- Products sold in the market are bank debentures, treasury bills and government bonds ✓✓
- The simplest form exists when parties make demand and short-term deposits and borrow on short term ✓✓
- The SARB is the key institution in the money market ✓✓

CAPITAL MARKETS ✓

- In the capital markets long term funds are borrowed and saved by consumers and the business sector ✓✓
- The Johannesburg Security Exchange (JSE) is a key institution in the capital market ✓✓
- Products sold in this market are mortgage bonds and shares ✓✓

FOREIGN EXCHANGE MARKETS ✓

- On the foreign exchange markets, businesses buy / sell foreign currency to pay for imported goods and services ✓✓
- These transactions occur in banks and consists of electronic money transfers from one account to another ✓✓
- The leading centres / most important foreign exchange markets are in London, New York and Tokyo ✓✓
- e.g. Traveller's cheques to travel abroad ✓

FLOWS THROUGH THE MARKETS ✓

- Flows of private and public goods and services are real flows and they are accompanied by counter flows of expenditure and taxes on the product market ✓✓
- Factor services are real flows and they are accompanied by counter flows of income on the factor market ✓✓
- Imports and exports are real flows and are accompanied by counter flows of expenditure and revenue on the foreign exchange market ✓✓

(26)

ADDITIONAL PART

- **Evaluate the contribution/role of firms in growing the economy**
(10 marks)

Additional part

POSITIVE ROLE

- Firms employ different factors of production which includes employing workers (labour) to produce goods and services. ✓✓
- By employing labour, firms pay wages creating a flow of income to households, which is spent by households on goods produced by different firms. ✓✓
- Firms develop new products and services to try to respond to consumer preferences and tastes. ✓✓
- For example, in response to increased demand for coffee, firms have opened new stores to cater for the new demand/ they can also involve offering new services such as home delivery by supermarkets. ✓✓
- Firms invest in capital and new technology to improve productivity in the economy and ultimately higher living standards. ✓✓
- Firms provide goods and services for the consumer which has enabled greater specialisation in the economy. ✓✓
- For example, labour saving devices such as washing machines, vacuum cleaners, childcare have saved time for 'household chores' enabling women to enter the labour force in greater number. ✓✓
- Firms pay taxes which contribute to social welfare the government pays to its citizens to ensure economic development. ✓✓

NEGATIVE ROLE

- Production by firms may lead to negative externalities of production, PP e.g. pollution and loss of natural resources. ✓✓
- Firms with monopoly power can charge excessive prices and cause an inefficient allocation of resources. ✓✓
- Firms which are publicly owned and supplying essential services may struggle to increase profits which can lead to regular bail-outs from the state. ✓✓

CONCLUSION

The circular flow ensures continued interdependence and coordination of the economic activities in the economy / markets are critically important institutions in our economic system, because they regulate the supply and demand and safeguard price stability and general business confidence. ✓✓

- OR

Markets are critically important institutions in our economic system, because they regulate supply and demand and safeguard stable prices and confidence amongst business people. ✓✓

(Any other relevant conclusion)

(max. 2) (10)

[40]