ECONOMICS

SS TWO FIRST TERM

SCHEME OF WORK

WEEK 1: Public Finance

WEEK 2: Taxation

WEEK 3: Taxation

WEEK 4: Uses of Taxation

WEEK 5: Budget

WEEK 6: Revenue Allocation in Nigeria, National Debt

WEEK 7: Agricultural Policies in Nigeria and Marketing of Agricultural Commodities Prospects of Agriculture

WEEK 8: Financial Institutions

WEEK 9: Capital Market

WEEK 10: Inflation and Deflation

NAME: ....

CLASS:..

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WEEK 1

TOPIC: PUBLIC FINANCE

Public finance is the management and control of government income and expenditure to achieve government's policy objectives.

It involves a detailed analysis of the various sources from which the government derives its income (revenue), the items on which the government spends its money and the impact of such government expenditure on different aspects of the economy.

FUNCTIONS / OBJECTUIVES OF PUBLIC FINANCE

1. It performs equitable distribution of resources among individual, tiers of government, and the various sectors of the economy.
2. It is use to achieve and maintain favourable balance of payments and economic development.
3. It provides a general parameter for monitoring the economy in terms of growth and stability.
4. It is used to achieve the economic objectives of the government.
5. It provide fund for transfer payments e.g pension fund, unemployment benefits, subsidies etc.

SOURCES OF GOVERNMENT REVENUE

The main sources of government revenue are

1. Taxes: This forms a major source of revenue to governments all over the world. These taxes may be direct or indirect taxes.
2. Royalties – This is the money paid by companies engaged in mining activities to the government for rights to explore and exploit mineral resources deposits
3. Earning (income) from government investments e.g. interest, rent, dividends, profits from government owned business property.
4. Grants and aids from individuals and institutions at home and from foreign governments and international organizations.
5. Borrowing:- This could be internal or external borrowing e.g sale of government securities or loans from African Development Bank, IMF, World Bank, Pars Club etc
6. Fees, licenses and charges, fines etc eg vehicle licence fees, liquor licence fees, fire arms licence fees, international passport fees, court fines, Road Safety Commission fines etc
7. Other sources e.g. Tolls, rates etc.

GOVERNMENT EXPENDITURE

The main items of government expenditure are

1. Defence or National Security: The government provides for the Army, Air force, Navy and the Police to maintain law and order and defend the country from external aggression.
2. General Administration: The government spends money in maintaining the Civil Service and the various officers of the government in the ministries, agencies, corporations, parastatals and departments
3. Social, educational facilities, water supply pipe borne water etc. and pension benefits for retirees.
4. Economic Infrastructure e.g. roads, bridges ports, agriculture telecommunication, power and electricity, etc.
5. Servicing of the National Debt: i.e. the repayment of the principal and interest of both external debts
6. Direct Productive Service: Government sometimes participate directly by organizing productions of some commodities.

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CLASSIFICATION OF PUBLIC REVENUE

Government revenue can be classified as

1. Recurrent Revenue:/ This is the total amount of revenue collected by the government of a country from their regular or yearly basic e.g taxation, fees, licences, fines etc.
2. Capital Revenue:- These are revenue from irregular or extraordinary sources. They are sources of revenue used for meeting expenditure on heavy capital projects e.g. grants or loans collected by the government for the purpose of building a project e.g. railway line.

CLASSIFICATION OF PUBLIC EXPENDITURE

Government expenditure can be classified as:

1. Recurrent Expenditure: - These are expenditure incurred in the running of the day to day activities of the government. They are expenses that re-occur within a fiscal year i.e. items / expenses that last for less than a year e.g wages, salaries, stationery, fuel for official cars, cost of maintaining roads, repairs expenses on dams etc.
2. Capital Expenditure:- These are expenditure (investments) on project that last for more than one year. They are used to acquire assets that are of permanent nature e.g construction of roads, bridges, government buildings, purchase of cars etc.

   In most cases, recurrent expenditure is spent in maintaining capital projects.

REASONS FOR INCREASE IN GOVERNMENT EXPENDITURE

There has been an astronomical increase in the magnitude of government expenditure. Some of the reasons for this include:

1. Increase in population leading top higher administration costs
2. The effect of inflation (general increase in price level) on the cost of projects undertaken by the government.
3. The effect of devaluation (depreciation) of the Naira on a largely import dependent economy of Nigeria.
4. The increasing cost of maintaining democratic institutions and large number of political structures i.e. states, local governments and their officials.
5. Greater demand for social and economic infrastructures and the cost of maintaining existing ones
6. The developmental / industrialization programmes of the government requires a lot of capital outlay to import the needed equipment / machines
7. The cost of servicing the country's huge stock of internal and external debt which has kept increasing because of interest capitalization
8. The high prevalence of corruption and over invoicing of the cost of projects by government officials and politicians.

FISCAL POLICY

A fiscal policy may be defined as a government plan of action concerning the raising of revenue through taxation and other means and deciding the pattern of expenditure to be applied.

Fiscal policy therefore involves the use of government income and expenditure instrument to regulate the economy with the aim of achieving some set economic objectives

The economic objectives of the government on fiscal policy includes.

1. Maintenance of stable prices / control of inflation and deflation.
2. Equitable distribution of wealth
3. Efficient allocation of resources

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4. Provision of full employment
5. Stability in the exchange rate of the national currency
6. Maintenance of favourable balance of payments

WEEK 2 TOPIC: TAXATION

A tax is a compulsory payment made by each eligible citizen towards the expenditure of the country. It is a compulsory contribution imposed by a government authority on goods, individuals, corporate bodies (business) without regard to the specific benefits that the taxpayer may receive.

REASON FOR THE IMPOSITION OF TAXES BY THE GOVERNMENT

1. To raise revenue for the government
2. Taxation is used to redistribute income i.e. to lower / reduce the income gap between the rich and the poor.
3. To project infant industries – infant industries are newly formed industries that has to be protected from competition by already established industries.
4. To stop or discourage the importation of dangerous or harmful goods e.g cigarettes
5. Taxation is used as a fiscal device to control the economy i.e. to control inflation, deflation or influence the rate of consumption, investments and savings in the economy
6. To encourage industrialization e.g by tax rebates or tax holidays for industrialists
7. Taxes are also used to promote social services such as social insurance, poor and elderly relief, health insurance etc.

PRINCIPLES OF TAXATION

Adam Smith in his book Wealth of National lays down four canons or attributes of a good tax system. They are

1. Equity: This principles emphasizes that the tax imposed must be in consonance with the tax payer's ability to pay. In other words, the tax imposed should be in fair proportion to the taxpayer's income. The progressive tax system reflects this.
2. Certainly: The tax payer must know how much he / she is to pay, in what medium, where, when and how the tax is to be paid.
3. Convenience: The method and time of tax collection should be convenient to the tax payer e.g wage/salary earners at the end of the month, farmers during harvesting period etc.
4. Economy: The cost of collection of taxes should be small relative to the amount collected. It will neither be frugal not prudent to use resources of N10,000 to collect
   In addition to the above, the following principles of a good tax system should be noted.
5. Flexibility: A good tax system should be capable of being changed when conditions and situations warrant such changes.
6. Neutrality: A good tax system should not be a disincentive to enterprise or productively i.e. it should not interfere unnecessarily with the supply and demand for goods, services and labour.
7. Simplicity: A good tax system should be simple enough for easy understanding.
8. Impartiality: There should be no discrimination in the collection of taxes.
9. Difficult to evade: A good tax system should ensure that tax evasion / tax avoidance are kept at a minimum.

CONCEPT OF TAX BASE AND TAX RATE

The tax base refers to the item of the object which is taxed. i.e. the amount of the salary wages, income, profits, gains or assets upon which the calculation of tax to be paid is based

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The tax rate refers to the percentage that is applied to the tax base in order to calculate the amount of tax payable by the taxpayer.

SYSTEMS OF TAXATION / FORMS OF INCOME TAX

1. Proportional Tax: This is a form of income tax in which the same rate of tax is applied to the respective income of taxpayers. for example if government applies a tax rate of 10% on all taxpayer income, a worker earning N15,000 will pay N1500 tax will pay N6000 as tax.
2. Progressive Tax: In this case, the percentage levied (tax rate) increases with the size of one's income. A progressive tax takes a larger percentages of income from people with larger income. It reduces inequality of income from people with larger income. It reduces inequality of income distribution eg Pay As You Earn (P.A.Y.E.)
3. Regressive Tax: In this case, the proportion removed as tax from one's income decreases as the person's income increases i.e. The higher the income, the lower the rate of tax eg Poll tax, indirect tax etc. A regressive tax aggravate inequality of income distribution

PROBLEMS ASSOCIATED WITH TAX COLLECTION IN NIGERIA

1. Corruption and nonchalant attitudes of revenue officers / tax collectors
2. Tax evasion and Tax avoidance
3. Lack of proper accounting records by business enterprises
4. Ignorance / illiteracy / mass poverty of the populace
5. Apathy of tax payers as a result of corruption in high places
6. Government's inability to provide essential infrastructure and amenities eg electricity does not encourage people to pay tax.

TAX EVASION AND TAX AVOIDANCE

Tax Evasion refers to an illegal attempt not to pay tax or pay less tax. For instance, someone could make false declarations of income or tax could be dodged completely.
Tax Avoidance refers to the efforts of a tax payer not to pay tax by finding a legal 100phone in the tax system. For example, the taxpayer could discover a part of the tax law that is ambiguous. He can therefore take advantage of this and easily defend himself legally if he does not pay tax or if he pays less tax. Tax avoidance is a legal etc.

WEEK 3 TOPIC: FORMS OF TAX

Taxes are divided into broad categories namely direct taxes and indirect taxes

(i) **Direct tax**: This is a tax collected from individuals and profits of companies. The burden of direct tax is borne by the payer.

Examples of direct taxes are (a) income tax (b) Company tax (c) Capital gain tax (d) Poll tax etc.

ADVANTAGES OF DIRECT TAXES

1. They are progressive in nature

2. The incidence of direct tax is easy to ascertain

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3. They are easy to calculate

4. Payers find them convenient to pay

5. Some specific group of people or business could be granted exemption from payment of direct tax.

DISADVANTAGES OF DIRECT TAXES

1. They discourage savings

2. They discourage investments

3. They are difficult to assess (determined with accuracy) eg company tax.

4. Cases of tax evasion is high (frequent)

5. They discourage hard work

6. It may result to squabbles between taxpayers and tax officials

(ii) **Indirect Tax**: This is a tax levied on goods and services. They are initially paid by either the manufacturer or importer of the goods who, as far as possible shifts the burden to the consumers in form of high prices. Examples of indirect taxes are customs duties (import duty and export duty) excise duty, purchase tax etc.

ADVANTAGES OF INDIRECT TAXES

a. Their collection is less difficult
b. They cause less squabbles
c. It yields more revenue to the government than direct taxes.
d. They are not easy to evade
e. The burden is shared among all sections of the society.

DISADVANTAGES OF INDIRECT TAXES

1. It causes inflation i.e. increases in the prices of goods.
2. It may cause scarcity of goods
3. They are unreliable sources of revenue
4. Indirect taxes are regressive in nature
5. They are non-discriminatory i.e. some group of people cannot be granted exemption from paying.
6. They restrict free trade between different countries.

DIFFERENCE BETWEEN SPECIFIC TAX AND AD VALOREM TAX.

This reflects the different methods of calculating custom duties.
In Specific Tax, the amount of tax to be paid depends on the quality of goods bought so that the greater the quality of goods bought the greater the tax to be paid.

Ad Valorem Tax: The amount of tax to be paid depends on the value or quality of the commodity. This value or quality is measured in terms of the price of the commodity. This means that goods which have higher prices are supposed to have higher values and are therefore taxed more heavily than goods whose values and thus prices are lower.

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ECONOMIC EFFECTS OF DIRECT TAXES

1. Direct taxes lead to a reduction in disposable income and consequently a reduction in consumption.
2. It discourages savings
3. It discourages hard work
4. It discourages investments and this would, in turn cause unemployment.
5. It leads to a redistribution of wealth
6. It reduces capital available for a company in form of retained profits.

ECONOMICS EFFECTS OF INDIRECT TAXES

1. It can lead to inflation
2. It encourages smuggling
3. It reduces production e.g. excise duties thereby causing scarcity of goods.
4. It discourages investment
5. It can lead to changes in the consumption pattern i.e. it alters the demand and supply of goods.

WEEK 4: INCIDENCE OF A TAX

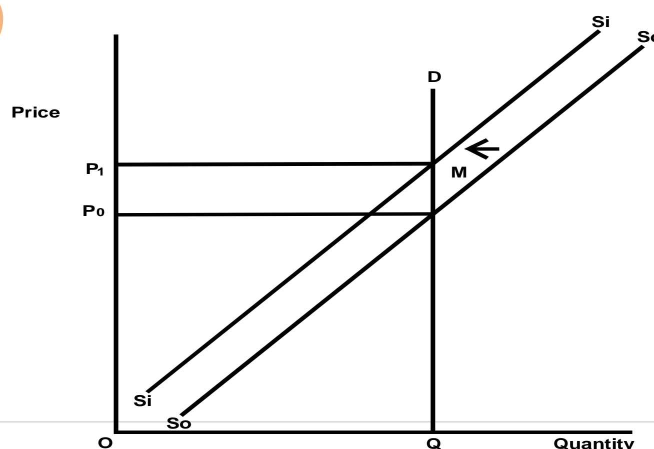
The incidence of a tax refers to the burden of tax with reference to where this burden rests. The incidence or burden of taxation lies on the person who finally pays the tax. There are two types of tax incidence

a. Formal incidence: this refer to where the in initial burden of taxation lies. The payer of a direct tax bears the initial burden of tax. For indirect taxes, the producers or the middlemen bears the initial burden of taxation.

b. Effective incidence: This refers to who bears the ultimate or final burden of taxation. In the case of direct taxes the payer bears the full burden of taxation. He bears both the formal and effective incidence.

   In the case of indirect taxes, the burden of taxation may be borne by the producer (seller) or the consumer, or it may be shared between the producer (seller) and the consumer. The extent to which the producer (or seller) or the consumer will bear the burden of indirect tax will depend on the elasticity of demand for the commodity which is taxed.

1. Where the demand for the commodity is perfectly inelastic, the whole tax burden can easily be shifted to the consumer by the seller.



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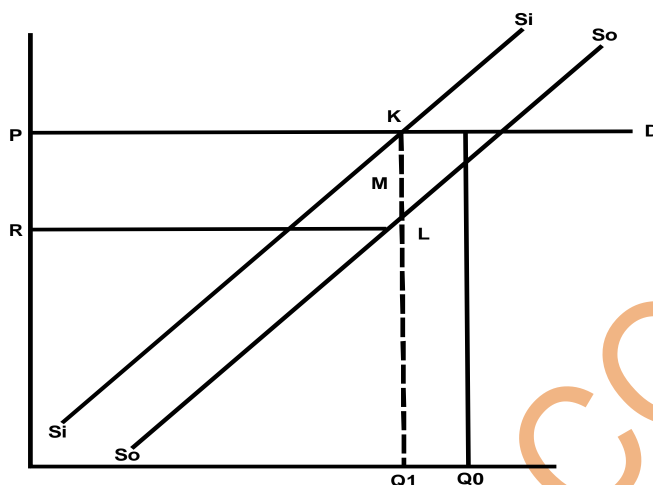
2. Where the demand for the commodity is perfectly elastic, the seller or producer will bear the whole burden of taxation. This is because any attempt to increase prices will make the demand for the commodity to fell to zero. The tax burden cannot, therefore be passed to the consumer.



3. Where the elasticity of demand for the commodity is unitary, tax burden is shared equally between the producer / seller and the consumer.

4. Where the elasticity of demand for the commodity is moderately elastic or moderately inelastic, the burden of taxation will be shared between the producer (seller) and the consumer depending on the extent of the elasticity.

WEEK 5 TOPIC: BUDGET

A budget may be defined as a financial statement of the total estimated revenue and the proposed expenditure of a government in a given period: usually a year.

FUNCTION / USES / IMPORTANCE OF BUDGETS

National budget is used to achieve the following objectives

1. It is used as a means of raising revenue
2. It is used to control inflation
3. It is used to as a remedy a depression (recession) or deflation.
4. It is used to correct a balance of payments deficit
5. It is used as a tool for economic planning
6. It is a means of enhancing public welfare and reducing income inequality in the country
7. Budgets are used to allocate resources between different sectors of the economy
8. It is used to control the economy with the arm of fostering economic growth and development.

TYPES OF BUDGET

1. Balance Budget: This is when the total estimated revenue is equal to the proposed expenditure of the government. This means that nothing will be left as reserve from the money collected in form of revenue

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2. Surplus Budget: A budget is called surplus budget when the total estimated revenue is more than the proposed expenditure. In this type of budget, not all the estimated revenue is proposed to be spent in that year. That is, there will be reserve.

3. Deficit Budget: This is when the government total proposed expenditure for the period is more than the total estimated revenue. The shortfall in revenue is sourced through borrowings, printing of more currency, aids and grants etc.

Economic conditions warranting the adoption of the different types of budgets

1. A budget surplus is desirable in period of inflation because it reduces aggregate demand thereby reducing inflationary pressure in the economy
2. A deficit budget is used in the following instances

   (a) To reduce unemployment by increasing aggregate demand.

   (b) To finance a national emergency such as war

   (c) To remedy a deflationary trend.

WEEK 6: NATIONAL DEBT

National debt or Public Debt refers to the sum total of debts owed by the government of a country both internally and externally.
The debts may or may not be with interest

Reasons why government borrow

1. To finance deficit budget
2. To finance a huge capital project
3. To prosecute a war i.e. for the procurement of ammunitions and other war materials
4. To service existing loans
5. To manage an emergency situation eg Flood, drought, epidemic, famine
6. To correct an unfavourable balance of payment

INSTRUMENTS OF GOVERNMENT BORROWING IN NIGERIA

1. Treasury Bills – used for short term borrowing i.e. 90 days
2. Treasury Certificates:- used for medium term borrowing i.e. 1 – 2 years
3. Development stocks – used for long above
4. Stabilization Securities

Effects of huge national debt on the economy of a country

1. It reduces the availability of foreign exchange
2. It makes a country to be susceptible to the dictates of external creditors
3. It makes it difficult for the country to source fresh loans – i.e. it lowers a country's credit ratings
4. A large domestic debt will influence the distribution of income in the country
5. The servicing of an external debt will involve an outflow of resources which can otherwise be used for economic development.
6. The servicing of a large national debt will limit the government's ability to provide welfare / social services to the people

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REVENUE ALLOCATION

(i) Meaning of Revenue Allocation
(ii) Parts of Revenue Allocation
(iii) Revenue Allocation formula.

(I) MEANING OF REVENUE ALLOCATION

Revenue allocation refers to the sharing of the nation's wealth among various tiers of government or various units that make up the country. The various units include: Federal, State and local governments.

(II) PARTS OF REVENUE ALLOCATION

Revenue allocation is grouped to two major parts namely:

1. Vertical Revenue Allocation – In vertical revenue allocation, revenue accruing to the Federal Account is shared among the three tiers of government – Federal, State and Local government.

2. Horizontal Revenue Allocation – Under the Horizontal Revenue Allocation, revenue accruing to federation account is shared among the units within a given level of government. It involves certain principles based on some factors to be applied in revenue allocation. These principles include:

i. Population size
ii.. Land mass
iii. Derivation, Oil producing areas.
iv. Ecological problems.

(III) REVENUE ALLOCATION FORMULA

This involves the weight assigned to various principles e.g. Federal government – 40%, State – 20%, Local government – 15%, mineral producing area – 10%, ecological problems – 5%, special fund – 5% others – 7%. These are just for the short time. It should be noted that there is no fixed revenue allocation. It changes from time to time. The Revenue mobilization Allocation and Fiscal Commission (RMFC) is always at work trying to work out a proposal for a new revenue sharing formula.

WEEK 7 **TOPIC: AGRICULTURE IN WEST AFRICA**

Agricultural Policies in Nigeria

Government of various West Africa countries have taken various steps to boost agricultural productivity… In Nigeria, the Federal Government had initiated many policies in order to improve the level of agriculture in the country. These policies were initiated to meet specific objectives so as to boost greater production of crops and livestock in the country. Some of these agricultural programmes and their objectives are stated below.

1. Operation Feed the Nation (OFN) - 1976
2. Agricultural Development Project (ADP) – 1976
3. Directorate of Food, Roads and Rural Infrastructure (DFRRI) – 1986

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4. Farm Settlement Scheme (FSS) – 1959
5. National Agricultural Insurance Scheme
6. Green Revolution – 1979
7. Land Use Decree – 1978

OBJECTIVES OF AGRICULTURAL POLICIES IN NIGERIA

1. To increase food production
2. To construct rural infrastructures such as feeder roads and earth dam
3. To provide security against risks, uncertainties and hazards in agriculture for farmers
4. To streamline and simplify the management of land in the country
5. To provide employment in agriculture

MARKETING OF AGRICULTURAL COMMODITIES

The marketing Board was saddled with the responsibility of marketing agricultural produce. Marketing Board may be defined as a public corporation charged with the responsibility of assisting farmers in purchasing, grading and marketing of various agricultural commodities in the country. Marketing Board System was set up several years ago and was known as the West African Produce Control Board.

FUNCTIONS OF MARKETING BOARDS

i. Purchase of produce.
ii. Sales of produce
iii. Revenue generation
iv. Price stabilization – They stabilized the prices of produce by fixing minimum prices for the crops they wanted to buy.
v. Processing of produce: The marketing boards were also responsible for processing some of the produce for final export to other countries.
vi. Development of agro-allied industries.
vii. Economic development
viii. Growth of co-operative societies.
ix. Manpower development
x. Improving the quality of produce.

PROBLEMS OF MARKETING BOARD

1. Inadequate finance
2. Problem associated with overproduction
3. Pricing problems.
4. Climatic problems
5. Illiteracy of the farmers
6. Political interference

PROSPECTS OF AGRICULTURE IN WEST AFRICA.

There is a lot of prospects for agriculture in the West African sub region as the climatic and soil conditions required to produce abundant food and cash crops both for internal consumption and for export are quite high.
In West Africa, agriculture could thrive if the following steps are taken by the various governments.

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1. Granting of subsidies on farm input e.g. fertilizers, seeds, chemicals etc.
2. Establishment of farm estates – This will encourage graduates of agriculture such as soil scientist, crop scientists animal scientists, fish experts to be involved in agricultural.
3. Zoning of regions to produce certain commodities e.g. cocoa in the West, oil palm in the east and groundnut in the Northern part of Nigeria.
4. Importation of farm machine.
5. Provision of finance.
6. Recruitment of agricultural graduates.

WEEK 8 TOPIC: FINANCIAL INSTITUTIONS

MONEY MARKET

Money market is a market where short-term securities are traded in. The market comprises of institutions or individuals who have money to lend or wish to borrow on a short-term basis.

INSTRUMENTS USED IN THE MONEY MARKET

i. Treasury Bills
ii. Treasury Certificate
iii. Bill of exchange
iv. Call money funds

A. **Treasury Bill** – This is issued by the central Bank. It enables the government to raise capital for ninety days.
B. **Treasury Certificate** – is also a means by which the government raises short – term loans. Unlike a treasury bill, however, a treasury certificate falls due for repayment in twelve to twenty-four months. Because of its longer maturation, it earns a higher rate of discount than the treasury bills
C. **Bill of Exchange** – This is a promissory note where the debtor acknowledges its debt and intend to pay within ninety days (90days).

D. **Call Money Funds** – The surplus are often invested through a special arrangement in which participating institutions invest surplus money for their immediate requirement on an overnight basis with the interest and withdrawal on demand. This enhances the liquidity of the money market.

INSTITUTIONS INVOLVED IN THE MONEY MARKET.

i. Central Bank
ii. Commercial Banks
iii. Acceptance House
iv. Finance House
v. Discount House
vi. Insurance companies

FUNCTIONS OF MONEY MARKET

1. Money market helps to provide capital (working capital) for day to day running of the business.
2. Through investing in call money extra income is generated.
3. Money market helps to mobilize savings.

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4. Money market helps to promote economic growth and development
5. It enhances good saving habit by those having surplus funds
6. Money invested in the money market is very easy to recall

CAPITAL MARKET

Funds are needed by entrepreneur, government and business firm on a long term basis.
Money market cannot provide these needed funds. Hence, capital market bridges this gap. Capital market is a market where long term securities are traded.

INSTRUMENTS USED IN CAPITAL MARKET

Securities such as shares, stocks, development stock, bond, debenture

A. **Share**- is a unit of capital measured by a sum of money, which is an individual portion of the company's capital owned by a shareholder. It is a means of raising long-term loans for company through the stock exchange market.
B. **Stock-** is the bundle of shares or mass capital, which can be transferred in fractional amounts. Stocks are always fully paid, for example, stocks can be quoted per N100 nominal value. They are collections of shares into a bundle. Stocks are not issued but converted from share issued.
C. **Development Stock-** is a debt instrument through which governments get long-term loans or borrowing for a period of up to five years and above.
D. **Bond-** is an interest bearing or discounted government or corporate security that obliges the issuers to pay the bondholder on specified sum of money annually at a specific interval and to repay the principal amount of the loan at maturity.
E. **Debenture-** is an instrument or a loan certificate for raising a long-term loan from the public by a limited company. A debenture is a debt and a debenture holder is not a co-owner of the business but a creditor.

INSTITUTIONS INVOLVED IN CAPITAL MARKET

i. Issuing houses
ii. Insurance companies
iii. Development Banks
iv. Building Societies
v. National Provident Fund (NPF)
vi. Stock Exchange

FUNCTIONS OF CAPITAL MARKET

1. Capital market provides long term loan for purpose of investment.
2. Capital market serves a forum through which public sector takes part in running of the economy.
3. Capital market helps to mobilize savings for investment purpose.
4. It provides means through which merchant banks can grow and develop.
5. It gives opportunity to the general public to participate in the running of the economy of the country

WEEK 9: DEMAND FOR MONEY

Demand for Money: is the total amount of money which an individual, for various reasons, wish to hold. That is, it is the desire to hold money in terms of keeping one's resources in liquid form rather than spending it. The demand for money in economics is known as Liquidity Preference.

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MOTIVES FOR HOLDING MONEY

Reasons or motives for holding money in economics as postulated by Lord Menard Keynes are in three major ways as follows:

1. **Transactionary Motives**- is when people desire to hold money in liquid or raw cash for day-to-day transactions or to meet current expenditure. That is, to cater for the interval between the receipt of incomes and their expenditures
2. **Precautionary Motives**- is when people desire to hold money in liquid form in order to meet up with unforeseen contingency or unexpected expenditure which may include sickness, unexpected visitors, accidents, etc.
3. **Speculative Motives**- is when people desire to hold money specifically for a business transactions in order to embark on speculative dealings in the bond (security) market.

SUPPLY OF MONEY: This refers to the total amount of money available for use in the economy at a given period of time. The supply of money involves the currency in forms of bank notes and coins circulating outside the banking system as well as the bank deposits in current accounts, which can be withdrawn by cheque (i.e. bank money).

FACTORS AFFECTING SUPPY OF MONEY

1. Bank Rate- is the rate of interest, which the Central Bank charges the commercial banks for lending money to or borrowing from them and discounting bills.
2. Cash Reserve Ratio- also known as Cash or Liquidity Ratio, is the percentage of the deposits Commercial Banks are expected to keep with them. When the Cash Reserve is high, the supply of money will definitely be low, and vice-versa.
3. Economic Situation- the Central Bank reduces the supply of money during the period of inflation and increases it during the period of deflation.
4. Demand for Excess Reserves- when Commercial Banks demand for excess reserves, the supply of money will increase.
5. Total Reserves of Central Bank- money supply is affected by the total reserve of the Central Bank. If the total reserve supplied by the Central Bank is high, money supply will also be high, and vice-versa.

QUANTITY THEORY OF MONEY

The quantity theory of money was propounded by Sir Irving Fisher- an American Economist. Fisher postulated that the value of money depended on the quantity of it that is in circulation. Though this has been traditionally explained as the relationship between the quantity of money in circulation and the amount of production of goods and services within the economy. Fisher in his analysis stated that the total stock of money multiplied by the velocity of its circulation is equal to the total transactions multiplied by the price level.

The connection between money in one hand and output and price on the other can be formally stated by means of the Fisher's identity known as the quantity theory equation. It is stated as, MV=PT, where M= Stands for the stock of money, V= Stands for the velocity of money, P= Stands for average price level, T= Stands for total volume of transaction.

Example:

From the quantity theory of money equation MV=PT. Assuming P=20, M=200,000 and T=20,000. Calculate the velocity of money (V)

Solution:

MV=PT

V=PT/M

V=20 x 20,000/200,000

V=2.

The velocity of money (circulation) is a measure of the speed at which money changes hand in the economy and is determined by the rate at which money is passed from one person to another and the length of time for which money is held in form of wealth or asset.

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CRITICISMS OF THE QUANTITY THEORY OF MONEY

The following criticisms were levelled against the quantity theory of money

1. It was more truism than a theory
2. It rests mainly on the assumption that some variables are constant.
3. Changes in prices may be as a result of other factors not included in the theory.
4. Its claim to be a theory of money is wrong because it failed to discuss the effect of the rate of interest.
5. It emphases much on the changes in the value of money and ignores the determinants of the original value of money.
6. The theory did not recognize the demand for money and concentrated on the supply of money

THE VALUE OF MONEY

The value of money refers to the purchasing power of money. That is, the amount of quantity or goods and services money can buy with a given sum of money over a given period of time.

FACTORS THAT DETERMINE THE VALUE OF MONEY

1. The general price level
2. Inflation and deflation
3. Supply of money or velocity of money
4. Volume or Quantity of goods and services produced

MEASUREMENT OF VALUE OF MONEY

The value of money can be measured using **price index**, which is also called **index of retail prices.** An index number is a statistical measure designed to show changes in variable or group of related variables with respect to geographical location or other features such as income, profession, etc, with respect to time. It can simply be defined as a ratio of two numbers usually expressed in percentage (%).

It is calculated by determining the average change in the prices of a set of goods and services. We have the Wholesale Price Index, Consumer Price Index, GDP Price Index, Retail Price Index, Cost of Living Index, Import and Export Price Indices. The formula for calculating index number is thus:

$$\text{Index Number} = \frac{\text{Price of the Current Year}}{\text{Price of the Previous(Base) Year}} \times \frac{100}{1}$$

Example:

Given that price of a Radio set in 2010 was N338, but rose to N362 in 2011. Calculate the price index of the radio.

Solution:

$$\text{Price Index} = \frac{Pn}{Po} \times \frac{100}{1}$$

$$= \frac{362}{338} \times \frac{100}{1}$$

$$=107.1\%$$

Interpretation of the Result: The above result shows that the price of radio set increased from 100% in 2010 to 107.1% in 2011, showing an overall increase of 7.1%

INSTITUTIONS INVOLVED IN CAPITAL MARKET

i. Issuing houses
ii. Insurance companies
iii. Development Banks
iv. Building Societies
v. National Provident Fund (NPF)
vi. Stock Exchange

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FUNCTIONS OF CAPITAL MARKET

1. Capital market provides long term loan for purpose of investment.
2. Capital market serves a forum through which public sector takes part in running of the economy.
3. Capital market helps to mobilize savings for investment purpose.
4. It provides means through which merchant banks can grow and develop.
5. It gives opportunity to the general public to participate in the running of the economy of the country

WEEK 10 : INFLATION

Inflation- is a persistent rise in the general level of price of goods and services. Inflation occurs when there is an increase in money supply without corresponding increase in volume of production.

TYPES OF INFLATION

1. **Demand – Pull Inflation** – This occurs when there is excess demand for goods and services over the supply. The factors responsible for this type of inflation may be due to population increase, increase in workers' salaries and wages, etc.
2. **Cost – push Inflation** – Producers pay for factors of production, any slight increase in price of factor input will reflect in the price per unit. For example: if there is an increase in price of flour, sugar, butter, automatically the price of bread would be high.
3. **Hyper- Inflation** – This occurs when the prices of goods and services are rising fast to the extent that money is losing its value or its ability to buy goods. War, budget deficits, etc. are the major causes of hyper inflation. Hyper inflation is also known as – galloping inflation or run-away inflation.
4. **Creeping Inflation** – This type of inflation occurs when there is slow but steady rise in the general prices of goods and services. It is also known as persistent inflation

CAUSES OF INFLATION

1. Inflation occurs when there is excess demand for goods and services e.g. demand pull inflation.
2. Low productivity e.g. agriculture;
3. Increase in salaries and wages.
4. High cost of production.
5. Budget deficit i.e. when government expenditure is more than its income.
6. Inflation can also be caused if there is increase in population that will force demand to rise.
7. Excessive bank lending.
8. High cost of importing raw material can lead to high cost of goods.
9. Hoarding – which is an act of creating artificial scarcity.
10. Inflation can be caused due to industrial action by workers e.g. strike, tools down etc.
11. Poor storage facilities.
12. Money laundering – which is mass transfer and injection of money into circulation.

EFFECTS OF INFLATION

Inflation as a phenomenon is a necessary evil. In other word, it has positive and negative effects in the overall economy.

POSITIVE EFFECTS OF INFLATION

1. During inflation, the debtor gains at the expense of the creditor.
2. Inflation period serves as a period where businessmen make profit.
3. Inflation stimulates investment.
4. Employment rate is high during inflation.
5. Due to the second, third and fourth points stated above, inflation helps the economy to grow.

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Negative effects of inflation
1. The lenders (creditors) incur loss because the money loses its value as inflation persists.
2. Distortion in the economy due to agitation for increase in wages and salaries.
3. Fixed income earners e.g. salary earners suffer a lot during inflation.
4. Money loses its value during inflation.
5. It leads to balance of payment problems.
6. Inflation discourages savings since money loses its value day in day out.
7. Fall in living standard of the people.

HOW TO CONTROL INFLATION
1. In an attempt to stem inflation, the government should encourage industrialization to make goods and services available.
2. Where inflation is triggered by increase in money supply, effective interest rate could be adopted i.e. increasing the interest rate to discourage excess borrowing.
3. Effective use of fiscal policy e.g. Taxation as a way of reducing the disposable income of workers can help to check inflation.
4. Removal of bottlenecks in the distribution system. This will enhance free flow of goods.
5. Legislation could be put in place to check the activities of hoarders.
6. Contractionary monetary policy can also help to check inflation where inflation is caused by increase in money supply.
7. Subsidies – for farmers, business, will help in solving the problem of increase in the prices of inputs e.g. hoe, cutlass.
8. Wage freezing i.e. government should not increase salaries.

TERMINOLOGIES ASSOCIATED WITH INFLATION
1. **INFLATION GAP** – This is an economic situation in which the total demand in the economy exceeds the total supply of goods and services available to satisfy demand. To arrive at this, subtract the total amount of money available for spending from the total money value of the actual good and services available to meet the demand.
2. **INFLATION SPIRAL** – An increase in price will make workers to demand for an increase income (wages and salaries). This will cause a rise in general level of price. This is known as inflation spiral.
3. **DISINFLATION** – The direct control of consumer's expenditure as a way of checking inflation is known as disinflation. This is done by reducing the supply of money and increasing interest rates etc.
4. **REFLATION** – This refers to economic state of affairs in which prices, employment, output etc. is picking up again as a result of conscious government policy to that effect.
5. **STAGFLATION** – When high rate of inflation exists at the same time as industrial production is slowing down, then we refer to this as stagflation.
6. **SLUMPFLATION:** Slumpflation occurs when economic condition in which much reduced economic activity co-exists with inflation.

DEFLATION- is defined as a persistent fall in the general level of price. This is a situation where the volume of money in circulation is not sufficient to meet up with the prevalent economic situation. This is a direct opposite of inflation. This is a fall in general level of price as a result of decrease in the volume of money in circulation.

CAUSES OF DEFLATION
1. Deflation is caused by failure of government to spend i.e. Budget surplus.
2. When banks increase their interest rate, it discourages borrowing as such money supply drops. This amounts to deflation.

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3. Where the productivity exceeds the demand coupled with decrease in money supply then deflation sets in.
4. Where workers are excessively taxed leaving them with little disposable income, their marginal propensity to consume drops thereby leading to deflation.

CAPITAL MARKET

Capital Market is a market for medium and long-term loans. The capital market serves the needs of industries and the commercial sectors. It comprises all institutions which are concerned with either the supply of or demand for long-term loans. The capital market provides a system by which money for investment is distributed to institutions, which require funds for their further growth.

FUNCTIONS OF CAPITAL MARKET

1. It helps to provide long-term loans to investors
2. It helps to mobilize savings for investment purposes
3. It helps to enhance the growth and development of merchant banks
4. It gives opportunity to the general public to participate in the running of the economy

Primary Market- is a market where new securities (share, stock, bond, etc) are either bought or sold. That is a market where securities are traded for the first time. The operators in this market are the issuing houses such as stockbrokers, merchant banks, commercial banks, mortgage banks, insurance companies, the Central Bank of Nigeria and government. Investors pass on their resources to some of these institutions for investment purposes. Thus, these financial institutions effectively play the role of financial intermediation by mobilizing the savings of investors and investing them. The Securities and Exchange Commission sits at the apex of the primary market, regulating the issues of public companies and all private companies with foreign participation.

Secondary Market- is a market in which buying and selling of existing securities of companies take place. It came into existence to complement the efforts of the Stock Exchange Market towards funds mobilization for investment. Second tier securities market is an appendage of the Stock Exchange and therefore serves to assist. The major participants in this market are stockbrokers and banks such as acceptance houses, investment banks, issuing houses, etc. The mode of operation in this market is similar to that of the first tier securities market but less restricted. The centre of activities for the secondary market is the Stock Exchange which provides a market in which holders of existing ‘quoted’ shares wishing to sell such shares can make contact with individuals and institutions who are interested in buying them. Hence the secondary market is dominated by the Stock Exchange, which provides a forum for trading in securities. Such a forum is a absolute necessary since many of the buyers of new securities will eventually resell them.

STOCK EXCHANGE

Capital serves as the nucleus of any functional business unit. The need to source for this factor becomes a major focus of the finance manager. Registered companies or Limited Liabilities companies need fund in large volume. Hence there’s need to source for fund. A market which provides an answer to this is the stock exchange market.

Stock Exchange- is a highly organized market where investors can buy and sell existing securities such as shares, debenture, stock. The stock Exchange serves as medium through which companies raise capital for growth and development. The stock exchange market ensures that every transaction must follow prescribed set or rules and regulations, which are complex in nature. The Lagos Stock Exchange which is an essential part of the capital market was established in 1960 through the Act of parliament with its branches in Abuja and Port Harcourt. All public Limited Liability companies are quoted in stock exchange.

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HOW STOCK EXCHANGE OPERATES

A transaction at the stock exchange is facilitated by the brokers and jobbers. Not everybody is permitted to trade directly at exchange except the members. The actual dealers (participants) in securities are the jobbers who tend to specialize in particular types of stocks while the brokers act as agent for potential buyers. A broker working on behalf of a client will approach the Jobber with the intension of knowing the price. The Jobber will then quote for him two prices; **higher price** as the selling price and **lower price** as the buying price. The difference is the 'Jobbers turn'. When the broker signifies his intention to buy, the necessary documents will be prepared.
The shares of well known companies are known as **blue chips**, while **gilt-edged** refers to government stocks. Prices of shares are quoted "cum-div" or "ex-div". **"cum-div"** denotes price at which the holders of such shares has the right to receive the next dividend payable, while **"ex-div"** denotes price at which the holder of such share has no right to receive the next dividend.

Two documents are prepared to speed up transactions: contract not and transfer form note

Contract Note- is a document sent by a stockbroker to his client to confirm a purchase or sale made on his behalf, while **Transfer Note**- is used to transfer ownership of shares.

FUNCTIONS OF STOCK EXCHANGE

1. Stock Exchange market serves as avenue of raising capital for business growth.
2. It provides employment opportunities for vast number of people e.g. brokers, jobbers, clerks and others
3. Information which informs business decision are made available to foreign and local investors through stock exchange.
4. Stock Exchange provides yardstick for measuring performance of quoted companies.
5. Stock Exchange provides avenue for the public to invest their idle fund in form of subscribing shares.
6. Dividends that accrued to shareholders serves as revenue in turn improve their living standard.

PARTICIPANTS OF STOCK EXCHANGE

The following are the participants in the stock exchange.
1. Public Limited Liability Companies e.g. Dunlop Nig. Plc, Access Bank Plc, First Bank of Nigeria Plc, Zenith Bank, Guinness Nigeria Plc, UTC Nigeria Plc, Longman Nigeria Plc etc.
2. Brokers
3. Jobbers
4. Speculators (Bull ,Bear and Stag)
5. Government
6. Issuing houses

INSTRUMENTS TRADED IN STOCK EXCHANGE MARKET

The instruments used in stock exchange market are shares, stock and debenture

A. **Shares and Stock** – Stocks and share are securities purchased by individuals, which is an evidence of contributing part of the total capital used in running an existing industry. Share and stockholders are entitled to dividend

B. **Debenture** – In financing business, the owner's fund (equity) can be used or debt. Debenture is a debt instrument which entitles the owner to a series of cash flow known as interest. A debenture holder is a creditor to a business unlike the shareholders.

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DEVELOPMENT BANK

A development bank is a financial institution setup purposely to offer medium and long term loans meant for development. It provides loans for projects in the area of agriculture, commerce and industry.

EXAMPLES OF DEVELOPMENT BANKS IN NIGERIA

(1) BOI- Bank of Industry
(2) NARDB- Nigerian Agricultural and Rural Development Bank
(3) FMBN- Federal Mortgage Bank of Nigeria
(4) UDB – Urban Development Bank
(5) NEB – Nigerian Education Bank
(6) NEXIM – Nigerian Export and Import Bank
(9) NACB – Nigeria Agricultural and Co-operative Bank

FUNCTIONS OF DEVELOPMENT BANKS

1. Provision of long term loans for capital projects
2. Implementation of government's industrial development policies
3. Supervision of projects
4. They give advice to both the government and industrialists
5. They underwrite securities issue
6. They contribute to manpower development and provision of technical support
7. They conduct extensive study on the industrial sector e.g. feasibility studies
8. They monitor and enhance general economic development activities
9. They undertake research on industrial development

NATIONAL INCOME

As individuals and firms keep account of their economic activities such as their annual report which shows all their activities during the past year, countries too like individuals and firms do record and keep their economic activities.

National Income- is defined as the monetary value of the total volume of goods and services produced by a country in a year. It is the money value of the total income earned by all the factors of production in a given country over a period of time usually a year. On the other hand, it is the sum total of money value of all individual expenditure on goods and services at the market price.

The National Income is different from the income of the government which refers to the revenue the government raises through taxation and borrowing.

DEFINITION OF CONCEPTS

A. **Gross Domestic Product (GDP):** This is defined as the total monetary value of all the goods and services produced in a country in a year by all the residents of the country regardless of whether they are citizens or foreigners. It relates to a closed economy, that is, it excludes the earnings or investment of citizens abroad but includes the earnings of foreigners or earnings from foreign investment in the country.
It can be measured at factor cost (adding together of production) or at the market prices.

In its calculation, no allowance is made for depreciation. So, it is best expressed as the addition of these three aggregates.

GDP = C + I + G
where C = Consumption
I = Investment
G = Government expenditure

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The GDP is used as an economic indicator in determining whether the country is growing, declining or stagnant.

B. **Gross National Product (GNP):** This is the monetary value of goods and services produced by the citizens of a country (including income from their investments both at home and abroad).

It is the total value of goods and services plus Net income from abroad which can be represented as (x – m) where x = export and m = import

That is to say, it includes the earnings of the citizens or their investment in other countries but excludes the earnings of foreigners or their investment in the country. In this case, no allowance is also made for depreciation.

Mathematically, it is expressed as: GNP = GDP + Net Income from abroad; or
= GDP + x – m; or
= C + I + G + x – m

C. **Net Domestic Product (NDP):** It is defined as the total monetary value of goods and services produced by all the residents of a country and earnings from their investment (whether citizens or foreigners) after allowance have been made for depreciation.

Mathematically, it is represented as:
NDP = GDP - Depreciation; or
= C + I + G – Depreciation

D. **Net National Product (NNP):** This is the difference between GNP and estimated Depreciation or capital consumed during the year; this is the GNP less depreciation. This is the monetary value of goods and services produced by all the citizens of a country and income from their investments (whether at home or abroad) after allowance has been made for depreciation.
NNP = GNP – Depreciation; or = C + I + G + (x – m) – Depreciation

E. **Personal Income:** This is the earnings of an individual in monetary terms for taking part in the production of goods and services either by him or his property. It includes wages to labour for its` services, interest received by capital owner, rent paid to the owner of the land, and profit received by an entrepre

F. **Disposable Income:** This is the income from all sources that accrue to household and private non-profit institutions after deducting personal income tax and other transfers to them. It is the income actually available for spending and saving. It can therefore be summarized as: Disposable Income = Personal Income – Personal Tax.

G. **Per Capita Income (PCI):** It is the national Income head of the population . It is the National Income divided by the total population of a country. It is an economic indication of a country's level of standard of living. Whether the PCI of a country is high or low depends majorly on the available resources and the size of the population of the country.
However, an increase in GNP of a country does not mean an increase in PCI. By formula, it is expressed as PCI = GNP / Total population

MEASUREMENT OF NATIONAL INCOME OF A COUNTRY

1 **Income Approach**: In this method, the total monetary values of income received by individuals, business organizations, government agencies within a year for their participation in production. The income received by factors of production in the form of wages or salaries, rent, interest and profits is added together. To avoid double-counting, transfer incomes or payments are not included. By using this approach, we arrive at either the G.N.P or G.D.P at factor cost.

2 **Output or Net product Approach**: - This is based on the census of production. It measures the value of all goods and services produced in a country during the year. To avoid double-country, income is measured

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on a value- added basis. (Value-added is the value of output, less cost of input). Natural income derived in this way gives the G.D.P at market prices. To get the G.D.P at factor cost, we subtract taxes and add subsidies.
3 **Expenditure Approach**: - This is the calculation of the total monetary value of expenditure on goods and services by government individual organization etc. within a country in a given period. In this calculation expenditure on inter mediate goods and services bought and used for further production must be excluded. This is done in order to avoid double counting and therefore, the calculation should particularize only on expenditure on the monetary value of final goods and services.

REASONS WHY A COUNTRY MEASURES HER NATIONAL INCOME

1. It gives an indication of the standard of living of the country through the measure of per capita income.
2. It helps the country to determine the growth rate of the economy
3. The national income estimate is vital for economic policy and planning.
4. Measured through the output approach enables the country to know the performance of the various sectors of the economy.
5. The national income data gives an idea of the pattern of expenditure of households.
6. It influences foreign investments. Foreign investors usually seek countries with rich or fast growing markets.
7 It forms the basis for contribution to international organizations.

PROBLEMS ASSOCIATED WITH NATIONAL INCOME MEASUREMENT

1 They do not reveal the income distribution in a country. National income estimate does not indicate whether income is widely spread or concentrated in a few hands.
2 There is a difference in the internal value of money. The standard of living to a large extent depends on the value of money.
3 Double counting: At times it is problematic differentiating capital goods from consumer ones, they are therefore counted twice which give false national income.
4 Determining what income is: Determining what is income to a person, what constitutes economic activities the rewards for some services like that of full-time house wives subsistence farmers, self-employed etc. constituting problems to national income measurement.
5 The problems created by the self employed. Many self-employed in our society do not keep proper book of account and therefore, it is very difficult to ascertain what their incomes, expenditures and outputs are.
6 Inflation and deflation: Inflation raises national income figure, while deflation reduces it. Problems here is how to arrive at accurate national income figure that is not affected by either inflation, or deflation
7 Determining Depreciation Value: - The inability of many business units and individuals ventures to calculate the depreciation of their machinery makes it difficult to ascertain the true position of a country's national income.

8 Insufficient Statistical data: It is extremely difficult to collect and assemble the required information for national income computation. In most cases, the information is just not available.
9 Ignorance and Illiteracy:- These factors make majority of the people in west Africa not willing to supply basis information that will be used for computation of national income
10 There are differences in the structure of production.

DEFINITION OF SOME CONCEPTS

The standard of Living and Cost of Living

1. **Standard of living**

This is the level of welfare attain by individuals in a country at a particular time . This level of welfare is measured in terms of the quantity and quality of goods and services consumed within a period of time. The average standard of living in the country is partly determined by the income per head via distribution of income.

2. Cost of Living

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An individual cost of living refers to the total amount of money spent to obtain the goods and services which will enable him exist at a particular time. The cost of living depends on the prices of gods and services which an individual consumes.

3. Price Index

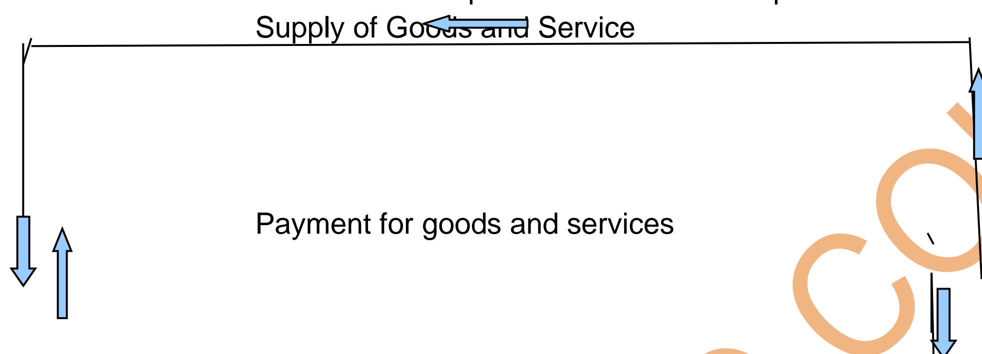
The price index is a number are figures used to show the average rises and fall of price in percentage terms with reference to a base period.

$$\text{Index Number} = \frac{\text{Current year price}}{\text{Base year price}} \times 100$$

THEORY OF INCOME DETERMINATION

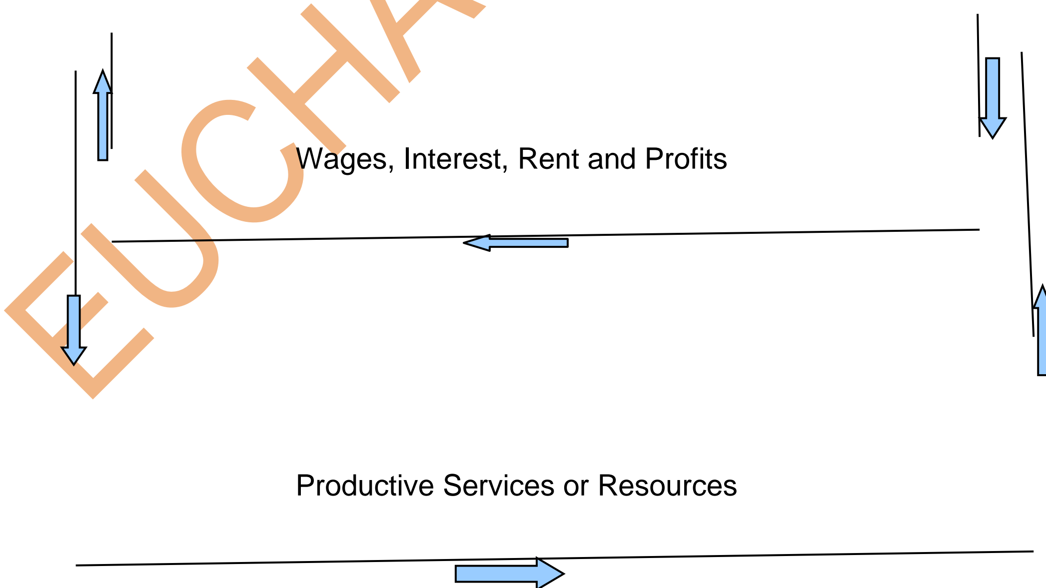
CIRCULAR FLOW OF INCOME

Circular flow of income shows the independence or relationship between households and business enterprise



Drawing 1: Household Or personal Sector

Drawing 2: Firms Or Business Sector



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Commodity and money flows between households and firms. It shows the flow of payments from business sector to households in exchange for labour and other productive services and the return flow of payments from households to business sector in exchange for goods and services.

The household or the personal sector offers its labour services to the business sector or firms in the production of goods and services. The household is rewarded in form of wages, interest and rent which it spends on the consumption of goods and services produced in the economy.

FACTORS THAT BRINGS ABOUT CHANGES IN THE CIRCULAR FLOW OF INCOME

1. **Withdrawal**: This part of all the income that is not all owed to pass through the normal channel of circular flow of income.
2. **Injection**: This forms an increase in the income of households, producers outside their normal processes of selling productive resources and manufactured goods.
3. **Savings**: These are part of income which are not consumed immediately and they reduce households and producers expenditures.
4. **Investment**: This reduces and creates additional income either immediately or in future.
5. **Gifts and grants**: They may come from governments to households and firms and help increasing their incomes
6. **Taxes**: They reduce the expenditures of households and firms on goods and factor services.
7. **Imports**: They involve expenditure on foreign made goods and services and constitute withdrawals from the circular flow of income.
8. **Export**: They Provide money from other countries and act as injection into the domestic circular flow of income.

CONCEPTS OF SAVINGS, INVESTMENT, AND CONSUMPTION

SAVINGS

Savings are made up of disposable income which is not spent on consumer goods and services. Saving involves forgoing some present consumption.

Individuals save for the following reasons:

1. To raise capital
2. For unforeseen contingencies
3. For speculation
4. To acquire assets
5. For future purposes
6. To raise social status

Factors that affect savings

1. The size of income
2. The rate of interest
3. Cultural attitude
4. Government polices
5. Availability of financial institutions.

INVESTMENTS

Investment may be defined as expenditure on physical assets which are not for immediate consumption but for production of consumer and capital goods and services.

Types of Investment

1. **Individual investment:** This may be on building, motor vehicles and other assets the individual hopes may increase his income and standard of living.

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2. **Investment by firms:** This can be on buildings machines, furniture, raw materials, semi finished and finished goods.
3. **Government investment in social capital;** These are in the areas of roads, electricity, pipe borne water, hospitals schools.
Purpose: to improve the living condition of the citizen.
4. **Government investment in public corporations:** To render essential services create more employment opportunities among others, are sure of the reasons why government invest.

Factors that determine investment
1. The amount of income earned.
2. Savings
3. Profit
4. The amount paid as tax
5. The rate of interest
6. Expectation
7. Business atmosphere
8. Political factor

CONSUMPTION
Consumption is the sum of current expenditure on goods and services by individuals, firms and government. It is also mean part of income not saved or invested. The level of consumption of an individual depends largely on his level of current income.

Factors that determine the level of consumption
1. The level of income
2. Savings
3. Expectation of price changes
4. The rate of taxes paid
5. The influence of other households
6. Assets owned
7. The rate of interest received
8. Business profit

The Relationship between Income, Consumption, Savings And Investment
Income, consumption and savings are related. The amount of income earned (household) determines to a large extent the level of consumption of an individual as well as the amount which can be saved. This is represented by the formula. $Y = C+S$, where Y = Income, C = Consumption expenditure and S = Savings

Also, income, consumption and investment are related. The amount of income earned (business sector) determines to a large extent the level of spending on the running overhead cost (consumption) as well as the amount spent on further investment. This is represented by the formula: $Y = C + I$, where Y = Income , C = Consumption expenditure , I = Investment Expenditures

In forming an equation with household income and the business sector's income, we have:

$$C + S = C + I$$
$$S = I$$

Consumption influences the level of national income. If people consume more, it encourages further production. Economy is at equilibrium when aggregate saving equals aggregate investment and full employment is achieved at this level. We save in order to accumulate capital for investment and for many other personal reasons. There

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will be no investment without saving. Investment, in turn, creates employment and income for people. Without income, we shall have nothing to save and nothing to spend on consumption of goods and services.

EQUATION AND CALCULATION OF INCOME DETERMINATION

NATIONAL INCOME AND ITS CALCULATION

In calculating the National Income for an open economy where import and export are involved (International Trade). A function such as:

Y = c + 1 + a + (x-m) could be used in arriving at the aggregate income in this function.

Y = The value of national income

C = Aggregate Investment expenditure (consumption)

I = Private Investment expenditure

X = Export expenditure

M = Import expenditure

Xn = Net exports (Xn >0)

Example 1

Below is information concerning the gross national product for a country in 1994 (in billions of naira) by sectors that buy the GNP.

Heading	Amount
Personal Consumption expenditures	637.3
Gross Private domestic investment	452.2
Government purchase of goods and services	105.3
Exports of goods and services	1001.
Imports	50.3

a. What method of national income is used for the above table?

b. Calculate the national income of the solution.

Solution

a. The method used is the expenditure method.

b. Since we are concerned with the expenditure method we have.

GNP = C + I + G + (x – m)

Substituting GNP = ₦637. 3 + ₦453.2 + ₦105.3 + (₦100.1 – ₦50.3) = ₦1,245.66

Example II

The national income equation of a hypothetical country is expressed as:

Y = C + I + G

Where:

C = a + by

=₦100m + $^3/_{4}$Y

I = ₦20m

G = ₦40m

Where C, I and G are consumption, investment and government expenditure respectively. Calculate the equilibrium level of national income.

Solution:

Y = C + I + G

Y = a + by + I + G

Substituting into the equation above

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Y = ₦100m + $^3/_{4Y}$ + ₦40m
Collecting like terms
(Y – $^3/_{4Y}$) = 100 + 20m + ₦40
Factorise the RHS
Y(1 – ¾)
Y (¼) = ₦160m
Divide both sides by ¼

$$\frac{Y / ¼}{¼} = \frac{160}{¼}$$

Y = 160 x $^4/_1$ = ₦640m

PROPENSITIES TO CONSUME

1. Average propensity to consume (APC)

This is the ratio of consumption to income. Also, it is the fraction of the national income consumed. That is,

$$APC = \frac{\text{Total National Consumption}}{\text{Total National Income}} = \frac{C}{Y}$$

Algebraically
APC = 1 (as c = y)
C = Y X APC
APC >1 as C >Y
Y = $^C/_{APC}$
All things being equal, the average propensity to consume falls between zero and unitary.

Example 1

Calculate the average propensity to consume. If the national income is ₦20m and the total National Consumption is ₦15m

Solution

APC = $^C/_Y$
Substituting into the formula above

$$APC = \frac{₦15M}{₦20m} = 0.75$$

Example II

If the national income is ₦150m and the average propensity to consume is 0.2. Calculate the total national consumptions.

Solution:

Applying
C = Y x APC
= ₦150m x 0.2
= ₦30m

2. Marginal Propensity To Consume (MPC)

Marginal Propensity to Consume (MPC). This can be defined as the ration of the change in consumption to the change in income that necessitated it. That is,

$$MPC = \frac{\text{Change in Consumption}}{\text{Change in income}} = \frac{\Delta C}{\Delta Y}$$

OR

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$$MPC = \frac{\Delta C}{\Delta Y}$$ (Infinitesimal Change) – A very Small Change

$O < MPC < 1$

MPC falls between Zero and one

Algebraically

$\Delta C = MPC \times \Delta Y$ and

$$\Delta Y = \frac{\Delta C}{MPC}$$

Example 1

If total national income increases from ₦1,500m to ₦1,800m and the total national consumption increases from ₦500m to ₦650m. What is the MPC.

Solution:

$$MPC = \frac{\Delta C}{\Delta Y}$$

Substituting

$$MPC = \frac{(650 - 500)m}{1,800 - 1,500}$$

$$MPC = \frac{₦150m}{₦300} = 0.5$$

Example 2

Given that the total national income increases from ₦750m to ₦1000m and the MPC is 0.7, find the change in consumption.

Solution.

$\Delta C = MPC \times \Delta Y$

$\Delta Y =$ ₦1000m – ₦750m

= ₦250m

Substituting

$\Delta C = 0.7 \times$ ₦250m

= ₦175m

Example 3

Determine the change in the total income if the change in the total national consumption is N300m and the MPC is 0.4.

Solution

Applying

$$\Delta Y = \Delta C = \frac{₦300m}{MPC} = \frac{₦750m}{0.4}$$

PROPENSITIES TO SAVE

1. Average Propensity To Save (APS)

This is defined as the ratio of savings to income. That is, the ratio of income saved (nationally) to the national income. It is denoted thus:

$$AP = \frac{\text{Total National Savings}}{\text{Total National Income}} = \frac{S}{Y}$$

$O < APS < 1$ (provided $O < S < Y$)

$APS = 1$ (as $S = Y$)

$APS = O$ (as $S = O$) Zero savings

Algebraically

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$S = APS \times Y$ and

$Y = \frac{S}{APS}$

Example 1

If total national savings is N50m and the total national income is N500m, then the APS will be thus:

Solution:
Applying

$APS = \frac{S}{Y}$

Substituting

$APS = \frac{₦50}{₦500}$

$APS = 0.1$

Example 2

Calculate the total national income if the total national savings is 250m and the APS is 0.2.

Solution:
Applying

$Y = \frac{S}{APS}$

Substituting

$APS = \frac{₦250}{0.2}$

$APS = ₦1,250m$

2. Marginal Propensity To Save (MPS)

This is defined as the ratio of the change is savings to the change in income that necessitated it. It is denoted thus:

$MPS = \frac{\text{Change in Savings}}{\text{Change in income}} \quad \frac{\Delta S}{\Delta Y}$

OR

$MPS = \Delta S$ (infinitesimal change) - A very small change $0 < MPS < 1$

MPS falls between zero and one

Algebraically,

$\frac{\Delta S}{\Delta Y} = MPC \times \Delta Y$ and $\frac{\Delta S}{MPS}$

Note: $MPS + MPC = 1$

$MPS = 1 - MPC$

Example 1

What is the MPS if the total national income increase from N375 to 450m and the total national savings increases from N85m to N100m

$MPS = \frac{\Delta S}{\Delta Y}$

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Substituting

$$MPS = \frac{(100 - 85)}{450 - 375}$$

$$MPS = \frac{₦15m}{₦75m} = 0.2$$

Example II

If the change in the total national income is ₦300 and the mps is 0.6, what will be the total national savings.

Solution:

$\Delta S = MPS \times \Delta Y$

$= 3000 \times 0.6 = ₦180m$

Example III

Given the change in the total national savings is ₦120mand the MPS is 0.3 calculate the total national income.

Solution

Applying

$$\Delta Y = \frac{\Delta S}{MPS}$$

$$= \frac{₦120m}{0.2} = ₦400m$$

Example IV

Find the mps when the mpc is 0.6

Solution

mpc + mps = 1

therefore mps = mpc – 1

- mps = 0.6 – 1
- mps = -0.4

mps = 0.4

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THE THEORY OF MULTIPLIER

The theory of the multiplier- states that an increase in consumer or business investment spending in a country would produce a multiplier effect by raising the level of national income. The multiplier effect can be as a result of changes in consumption expenditure, which is known as consumption multiplier or investment changes, which is known as investment multiplier.

The concept of multiplier shows that a small change in investment can have a magnified effect on income. Multiplier = 1 / (1-MPC) where MPC equals marginal propensity to consume.

Total increase in income depends on the marginal propensity to consume . If MPC is high , the multiplier will be high and rise in income will be high when people spend on consumption , the level of national income rises.

Example:

Considering #100 million increase in investment , suppose 4/5 of the investment was consumed 1/5 would have been saved.

Increases in Income = Investment / 1- MPC

= 100m/ (1- 4/5) = 100m / (1/5)

= 100m x 5/1

= 500 million

The total increase in income is five times the initial increase in investment. Therefore, Multiplier is 5.

The multiplier denoted by K is usually calculated with the aid of formula

1. $K = \frac{1}{1 - mpc} = \frac{1}{mps}$

$K = \frac{\Delta Y}{\Delta C}$

Where K = multiplier
Mpc = marginal propensity to consume
Mps = marginal propensity to save.
Y = change in national income
C = Consumption expenditure
I = Investment

Example 1

(a) If the marginal propensity to consume is 0.8, calculate the multiplier.
(b) By how much must consumption expenditure be increased to increase income by ₦10,000.

Solution

(a). $K = \frac{1}{1 - mpc} = \frac{1}{1 - 0.8} = \frac{1}{0.2} = 5$

The multiplier K has a value of 5

(b) $K = \frac{\Delta Y}{\Delta C}$

$5 = \frac{₦10,000}{C}$

Cross multiply

$5 \times C = 10,000 \times 1$

$C = \frac{10,000}{5} = ₦2,000$

EQUILIBRIUM LEVEL OF INCOME

Equilibrium Level of Income- is a situation where the total amount people wish to save equals total investment of business units. It refers to a point at which the aggregate saving equals aggregate investments. At equilibrium level of income, there is a balance between or equality of saving and investment as illustrated in the diagram below:
Again, at equilibrium level of income, there is a balance between the aggregate demand and aggregate supply, and there will be no tendency to increase or decrease output. The business sector is satisfied that the right volume of output has been achieved and there will be no tendency to alter it.

For equilibrium national income to be maintained, the volume of total withdrawals from the circular flow of income must be equal to the volume of total injections. That is, total amount of saving must be equal to total value of investment, and aggregate expenditure must be equal to total output.

Income earners (household) can spend their income on consumption of goods and services or save it, hence, Y = C + S. On the other hand, the firms can spend its income on the running overhead expenses or invest it, hence, Y = C + I. Probing this equation further, we will arrive at a situation of, S = I, where the aggregate saving equals aggregate investment that indicates the general equilibrium level of income.

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NOTE: For Y to be constant, the level of savings (S) must be equal to investment (I). By implication, the amount of consumption goods and services produced by firms will be equal to the aggregate demand of the people (household).

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