Economics Higher Level – Section 2: Macroeconomics

Unit 2.1: Level of Overall Economic Activity

Macroeconomic objectives

- **Economic growth** – steady rate of growth
- **Employment** – low level of unemployment
- **Price stability** – low and stable rate of inflation
- **Income distribution** – an equitable distribution of income
- **External stability** – favorable balance of payments position

National income – a measure of the value of the output of the goods and services produced by an economy in a given time period. Factors of production that create the output will received rewards in the form of wages, rent, interest and profits. Therefore, as the circular flow of income in a 2-sector (households and firms) economy will show, **income (Y) = output (O) = expenditure (E)**

Withdrawals (leakages) – only part of the income received by households and generated by firms will be passed on in the real world.

- **Savings (S)** – income that consumers choose not to spend but to put aside for the future, normally deposited in financial institutions such as banks and building societies.
- **Taxes (T)** – this is a withdrawal of money as it is income not spent on goods and services.
- **Import expenditure (M)** – goods and services that have been produced in other countries and purchased by domestic buyers.
- **Total Withdrawals (W) = S + T + M**

Injections – only part of the demand for firms' output arises from consumers. The remainder comes from other sources. These are additional components of AD.

- **Investment (I)** – the spending by firms on capital goods such as buildings, machinery and equipment
- **Government expenditure (G)** – when the government spends money on goods and services produced by the firm

- **Export expenditure (X)** – goods and services produced domestically and purchased by foreigners
- **Total Injections (I) = I + G + X**

The circular flow of income in a 4-sector economy is shown in the diagram below. In the real world, W and J are unlikely to be equal.

If **W > J, more money is being withdrawn than injected**. On the net, lesser income is spent on domestically produced goods and services.

- Firms cut back on output and purchase fewer factors of production
- Households receive lesser income
- Consumer expenditure falls
- Circular flow decreases in size

If **W < J, more money is being injected than withdrawn.** On the net, more income is spent on domestically produced goods and services.

- Firms increase output and hence purchase more factors of production
- Households receive higher income
- Consumer expenditure rises as a result
- Circular flow increases in size

Measure of Economic Activity

- **Expenditure approach** – adds up all spending by different sectors on final goods and services produced within a country over a time period. Spending is broken up into **C, I, G and (X-M)** and provides a measure known as **GDP**.
- **Income approach** – adds up all income earned by the factors of production within a country over a time period. The result is national income, often used as a measure.
- **Output approach** – calculates the value of output by economic sector such as agriculture, manufacturing, financial etc. in a country over a time period and sums them up to obtain the total value of all final goods and services produced in the entire economy.

Gross Domestic Product (GDP) – the market value of all final goods and services produced over some period of time by productive factors that are located within the geographical boundaries of the country. It includes goods and services produced by productive factors owned by foreigners mainly in the form of capital invested locally.

Gross National Product (GNP) – the market value of all final goods and services produced over some period of time by productive factors owned by residents of the country, irrespective of the location of these factors whether within or beyond the geographical boundaries of the country.

GNP = GDP + net property (or factor) income from abroad

Nominal national income – valued at current prices

Real national income – valued at constant prices after allowing for inflation

GDP deflator – an index of the average prices of all the components of GDP. Measures the current year level of prices relative to the level of prices in the base year.

$$\text{GDP Deflator} = \frac{\text{Current year price}}{\text{Base year price}} \times 100$$

$$\text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100$$

Per capita – per person

$$\text{Per Capita GDP} = \frac{\text{GDP}}{\text{Total Population}}$$

Uses of national income statistics

- **Indicates a country's economic performance** – real GDP facilitates the calculation of a country's economic growth rate. The formula for economic growth is as follows: $\frac{\text{Real GDP Year 2 – Real GDP Year 1}}{\text{Real GDP Year 1}} \times 100\%$
    - **Expenditure statistics** – breaking down the figure into various components allows one to deduce the proportion of consumption vs. investment expenditure or even trade relationships and openness by examining (X – M).
    - **Income statistics** – reflects income distribution as it shows the contribution by each type of factor of production.
    - **Output statistics** – indicates maturity and economic structure of the country by looking at the contribution of each sector, indicating high and low performers.

- **Indicates standard of living** – material and non-material well being; income statistics facilitates examination of material well-being and comparison between countries.
- **Helps private firms plan production and investment** – useful for private firms that are planning their overseas production and investment.
- **Helps formulating of government policy** – e.g. to determine overall labor productivity, governments calculate GDP per employed person or hours worked.

Evaluating National Income Statistics

Problems in measuring welfare between countries	Problems in measuring living standards
Measurement problems such as: • Inaccuracy of figures • Differences in statistical processes	Measurement problems such as: • Data collection problems • The unrecorded economy (illegal as well as undeclared legal activities) • Non-market economy (non-monetary sector)
Interpretation problems such as: • Differing domestic price levels (Market exchange rates very from day to day and do not reflect the relative price differences across countries. Use the **purchasing power parity** rates instead – **the rates of currency conversion that equalize the purchasing power of different currencies by eliminating the differences in domestic price levels. It is found by taking the ratio of prices in national currencies of the same basket of goods and services in different countries**.) • Differences in the distribution of income • Differences in proportion of national income spent on different types of goods • External costs are not taken into account • Loss of leisure time	Interpretation problems such as: • True distribution of GDP is not reflected • Composition of output (consumption and investment goods while living standards depend only on consumption goods) • External costs are not taken into account • Sacrifice of leisure time is not considered

Alternative measures of living standards

- **Health indicators such as** – life expectancy, infant mortality and maternal mortality
- **Education indicators such as** – adult literacy rate, primary and secondary school enrolment
- **Composite indicators such as** – Human Development Index and Green GDP

The Business Cycle – periodic but irregular up and down movements in economic activity, measured by fluctuations in real GDP and other macroeconomic variables. It is shown below. It has four phases:

- **Peak** – sharp expansion of real GDP and overheating economy, very high AD and high inflation rates
- **Recession** – 2 consecutive quarters of negative growth in real GDP, the falling of AD and easing of inflationary pressures
- **Trough** – characterized by high levels of unemployment and low AD. Little to no inflationary pressures
- **Recovery** – increased AD and expansion. Inflationary pressures begin to mount.

Unit 2.2: Aggregate Demand and Aggregate Supply PPC

Aggregate demand – total expenditure on domestically produced final goods and services in an economy. **AD = C + I + G + (X – M)**. The AD curve is downward sloping, indicating a negative relationship between GPL and real GDP. This is due to:

- Real income effect – lower GPL leads to more spending by people as real income rises
- Interest rate effect – lower GPL leads to a decrease in the demand for money and interest rates, resulting in an increase in purchases and investment spending
- International trade effect – lower domestic inflation relative to foreign inflation makes domestic goods relatively cheaper, thus net exports rise and AD

Determinants of AD

- **Consumption**
  - **Consumer confidence**
  - **Interest rates and availability of credit**
  - **Level of disposable income**
  - **Level of wealth of households**
  - **Level of household debt**
  - **Expectations of future prices**
- **Investment**
  - **Interest rates**
  - **Business confidence**
  - **Corporate tax levels**
  - **Corporate debt**
  - **Improvements in technology**
- **Government spending**
  - **Economic factors**
  - **Political factors**
- **Net exports**
  - **Relative changes in income level**
  - **Domestic vs. foreign prices**
  - **Exchange rate**
  - **Changes in level of trade protection**

Aggregate supply – the value of goods and services produced in an economy (real GDP) at different price levels over a particular time period. The supply curve shows the relationship between real output and GPL. Higher prices entice industries to produce more. However, an economy cannot sustain a production level that is beyond its full-employment output.

Short-run aggregate supply (SRAS) is defined as the time period where factors of production do not change in response to price changes. This applies to wages. It is upward sloping as the LDMR compels firms to increase output only when there is an increase in GPL.

Factors influencing the SRAS curve – leftward shift indicates fall in SRAS while rightward indicates a rise

- **Changes in prices of inputs**
- **Changes in business taxes and subsidies**
- **Supply shocks** – events that have a sudden and strong impact on SRAS e.g. bad weather causing a fall in harvest

Long-run aggregate supply (LRAS) is where the prices of all resources including labor are flexible so as to reflect fully any change in price levels.

Classical theory states that a market economy would automatically tend toward full employment output level with no unemployment in the long run**,** advocating laissez-faire approaches. It assumes:

- A competitive market
- Flexibility of prices
- Full employment of resources
- Profit motive
- Price mechanism crucial in allocation of resources

Characteristics of Classical LRAS:

- Supply creates its own demand – the production of goods and services will generate income and expenditures sufficient to ensure that they are sold.
- The equilibrium level of real national income at any time was a point of full employment. Price flexibility provides a self-correcting mechanism to restore full employment.
- Changes in AD only affect GPL and not real output in the long run
- Saving leads to investment and thus growth

The model is illustrated below.

Keynesian theory advocates government intervention.

Characteristics of Keynesian LRAS:

- Prices and nominal wages are inflexible
- The economy is able to be in equilibrium below full employment output level
- AS up to full employment output level is determined entirely by AD
- A rise in saving does not translate to investment

The model is illustrated below.

Factors influencing LRAS over the long-term (illustrated below)

- Changes in technology
- Changes in quantity of resources
- Changes in quality of resources

Equilibrium national income exists when there is no tendency towards a contraction or expansion of national income and this level will be maintained unless the economy is disturbed. It occurs when demand intersects SRAS. It is shown in both the Classical and Keynesian examples below.

Impacts of changes in short-run equilibrium – increase in AD and increase in SRAS is reflected below.

Long run equilibrium and full employment level of national income – AD cuts AS at the full employment level of real GDP.

Inflationary gap refers to when the actual output exceeds the full employment national income. **Actual output > potential output**. It implies that there is excessive AD relative to the level that would give rise to full employment. In the classical model shown below, it implies that unemployment is less than the natural rate of unemployment and that the equilibrium level of real national income is above the full employment level.

Deflationary gap refers to when the actual equilibrium national income is below the full employment national income. **Actual output < potential output.** It implies that there is deficiency in AD relative to the level that would give rise to full employment. It shows that unemployment is higher than the natural rate and that the equilibrium level is below full employment.

The Keynesian Multiplier is an impact on real GDP due to a change in any of the components of AD.

Marginal Propensity to Consume (MPC) refers to the fraction of additional income that households spend on domestically produced goods and services.

Marginal Propensity to Save (MPS) refers to the fraction of additional income saved.

Marginal Propensity to Tax (MPT) refers to the fraction of additional income taxed.

Marginal Propensity to Import (MPM) refers to the fraction of additional income spent on imports.

Marginal Propensity to Withdraw (MPW) refers to the fraction of additional income flowed out of the money flow as savings, taxes and expenditures.

$$\text{Multiplier k} = \frac{\text{Change in real GDP}}{\text{Initial change in injections}}$$

$$\text{Multiplier k} = \frac{1}{1 - \text{MPC}}$$

$$\text{Multiplier k} = \frac{1}{\text{MPS}}$$

$$\text{Multiplier k} = \frac{1}{\text{MPS} + \text{MPT} + \text{MPM}}$$

$$\text{Multiplier k} = \frac{1}{\text{MPW (withdrawals} = \text{S} + \text{T} + \text{M)}}$$

The **Production Possibilities Curve** (PPC) illustrates output changes in an economy. It shows all the combinations of the maximum amount of two goods that an economy can produce within a certain period, with a certain level of technology and when all available resources are fully and efficiently employed. The PPC illustrates concepts such as:

- **Scarcity** – points beyond the PPC are unattainable combinations due to limited resources
- **Choice**
- **Opportunity cost** – to produce more consumer goods; some capital goods have to be sacrificed.
- **Potential output**
- **Actual output**

Shift of the PPC and reasons

- An outward shifts indicates **potential growth** (an increase in potential output). It can be caused by an increase in the quality, quantity of resources as well as technological improvements.
- A movement of a point from within a point on the PPC boundary indicates actual growth. It can be caused by expansionary policies and efficient usage of resources.

Unit 2.3: Macroeconomic Objectives

Unit 2.3.1: Low unemployment

Unemployed – people of working age who are without work and actively seeking employment or waiting to take up an appointment

Labor force – the number of people who are unemployed plus the number of people who are employed. They are also known as the economically active group.

Economically inactive – the group comprising of those who are able but unwilling to work as well as those who are unable to work.

Unemployment rate = number of unemployed/labor force x 100%

Labor force participation rate = labor force/working age population x 100%

Official measures of unemployment

- **Claimant rate of unemployment** – measure of all those in receipt of unemployment benefits
- **Standardized unemployment rate** – the result of national labor force surveys

Difficulties of measurement

- **Hidden unemployment (underestimates)**
- **Under-employment (underestimates)**
    - **Underground economy and false representation (overestimates)**
- **Differences in demographics and regions**

Consequences of unemployment

- **Economic costs**
    - **Loss in real GDP**
    - **Loss of income**
    - **Reduction of tax revenue**
    - **Costs to the government**
    - **Deskilling and hysteresis**
- **Social costs**
    - **Stress**
    - **Social problems**

Types of Unemployment

Full Employment refers to when there is equilibrium in the aggregate labor market. The unemployment that exists at this point is known as the natural rate fo unemployment.

Frictional unemployment – unemployment that occurs when workers are in between jobs, in search of better jobs or waiting to begin a new job. Can also be due to imperfect information.

Seasonal unemployment – unemployment that occurs because the demand for certain types of labor fluctuates on a seasonal basis due to variations in needs.

Structural unemployment – caused by structural changes in the economy that results in some workers being unemployed for very long. There is a mismatch between the labor skills demanded and the skills supplied. An example due to the shift to eBook readers from hard-book printing is shown below. Reasons include:

- **Changes in demand for particular skills**
    - **Technological changes and automation**
    - **Change in the pattern of demand**
    - **Loss of comparative advantage**
    - **Changes in geographical location of industries**
    - **Labor market rigidities**

Cyclical or demand-deficient unemployment is caused by an excess supply of labor especially when AD rises. It is unemployment that occurs during the downturns of the business cycle. It is illustrated below.

Policies to deal with unemployment

Demand-deficient unemployment requires expansionary demand-side policies.

- Expansionary monetary policy (fall in interest rates to encourage C and I)
- Expansionary fiscal policy (increasing G)

Evaluation:

- Limited by consumer and business confidence
- Limited by multiplier size
- Time lag of legislation
- Deficit spending
- Government overspending – crowding out effect
- Price instability and unfavorable trade balance

Structural unemployment requires supply-side policies.

- Market oriented policies
    - Lowering unemployment benefits and personal income taxes to encourage people to work
    - Deregulating labor markets
- Interventionist policies
    - Encouraging retraining of workers
    - Geographical mobility and relocation of factories

Evaluation:

- Could increase income inequality
- Spending may not be sustainable
- Receptiveness of the workers
- Market structural rigidities

Frictional unemployment requires supply-side policies.

- Market oriented policies
    - Increasing incentives to accept jobs
    - Lowering personal income taxes
- Interventionist policies
    - Improving information flows between employers and job seekers and reducing asymmetric information

Evaluation:

- Opportunity cost of government spending
- Mentality of people

Seasonal unemployment

- Education
- Encouraging alternative employment

Unit 2.3.2: Low and stable inflation

Inflation – a period of sustained increase in the GPL in an economy over a period of time

Deflation – a sustained decrease in GPL in an economy over a period of time

Disinflation – a fall in the rate of inflation

Mild inflation – no more than 5% per annum

Galloping inflation – double or triple digits

Hyperinflation – 1000% onwards, usually leading to breakdown of the country's monetary system

Measuring inflation or deflation

1. Consumer price index (CPI) – measuring the changes in the prices of a basket of goods and services consumed by the average household

$$\text{Inflation or deflation rate} = \frac{\text{CPI Year 2} - \text{CPI Year 1}}{\text{CPI Year 1}} \times 100\%$$

Construction of the CPI – $\frac{\text{Price of basket of goods and services in current year}}{\text{Price of basket in base year}} \times 100\%$

Formula to weight the CPI – $\frac{\text{Given year price index}}{\text{Weights}}$

Evaluating the CPI

- Allows governments to briefly identify the causes of inflation
- Is useful in formulating wage policies and welfare schemes
- Firms estimate revenue, costs and profit potential
- Is limited by the general basket
- The national average does not consider different geographical and demographical trends
- Changes in consumption habits
- Does not reflect quality
- Errors in data collection

Core (underlying rate of inflation) – does not include food and energy products that can have temporary price shocks

2. Producer price index (PPI) – several indices of prices received by producers of goods at various stages in the production process. Measures price level changes from the point of view of producers, not consumers.

1. **Demand-pull inflation** – occurring when AD exceeds aggregate supply when the economy is near or at full employment, causing upward pressure on prices. Shown as a rightward shift in the AD curve. This is shown in both the classical and Keynesian graphs below.

2. **Cost-push inflation** – occurring when prices are forced upwards by sustained increases in costs of production, which are not caused by excess demand. This can also be due to wage push, imported inflation and exchange rates. Additionally, tax-push inflation and profit-push inflation is also a factor.

Interaction of demand-pull and cost-push inflation – the **inflationary spiral**. Higher AD leads to negotiation for higher wages, which pulls SRAS leftwards and maybe higher spending, pushing AD rightwards more.

Consequences of Inflation

- Redistribution effects
    - Household income and savings will fall in real value
    - Firms will gain as prices rise faster tan production costs
- Uncertainty will hinder economic growth
- Export competitiveness of the country will also be damaged

Policies to deal with inflation

Demand-pull inflation requires **demand-side** policies, consisting of monetary and fiscal policies.

- **Monetary policy – the manipulation of monetary variables such as money supply and interest rate to achieve macroeconomic objectives**. Deflationary monetary policy serves to curb demand-pull inflation by reducing AD. However, this may not work if business and consumer confidence is still high. Effect on investment is not guaranteed and this reduction in inflation is achieved at the cost of lower employment and economic growth.
- **Fiscal policy – the use of government spending and taxation as instruments to achieve macroeconomic objectives**. To keep demand-pull inflation in check, the government can raise taxation and/or cut government spending. This directly influences AD and hence the rate of inflation. However, this may not bring about the desired decrease in consumption and investment if households and businessmen are optimistic. It is also difficult to reduce government spending in practice. There will also be lower employment and economic growth. The increase in taxes may also disincentivize work. There are also time lags.

Cost-push inflation requires **supply-side** policies, consisting of monetary and fiscal policies.

- For **wage-push** inflation, **market-oriented policies include reducing labor market rigidities and lowering personal income tax rates**. However, it may encourage people to work fewer hours and the former might worsen income inequality. **Interventionist policies include training and education** but takes time and costs a substantial amount before the effects are seen. The policies are also contingent on the receptiveness of the population.
- For **imported** inflation, the government may **appreciate or revalue the domestic currency**. However, it will make exports more expensive in foreign currency and imports cheaper in domestic currency. The current account will worsen. It may also lead to a fall in net exports and hence AD.
- For **profit-push** inflation, one can **adopt more pro-competitive policies such as antitrust laws, removal of barriers to entry and eliminating trade barriers**. However, it may make it difficult for companies to enjoy economies of scale. A **price ceiling** could potentially be another solution.

The short-run Phillips Curve displays the inverse relationship between inflation rate and the unemployment rate of an economy. As illustrated below, the lower the rate

of inflation, the higher the unemployment rate and vice versa. This can be explained by the use of an AD-AS model. This is due to a trade-off between inflation and unemployment.

Stagflation – a situation where there is a combination of low growth, high unemployment and high inflation.

The long-run Phillips curve represents the long-run relationship between inflation and unemployment. It is illustrated below. It is vertical at the level of full employment (no demand deficient unemployment). The theory is that the adaptive expectations of workers regarding inflation will result in the unemployment rate moving back to the non-accelerating inflation rate of unemployment (NAIRU) even with a long-run higher rate of inflation.

Deflation refers to a decrease in GPL. Negative consequences include:

- **Decline in national output and rise in demand-deficient unemployment**
- **Decline in the ability of firms to invest**
- **Deflationary expectations**
- **Risk of bankruptcies and a financial crisis**

Unit 2.3.3: Economic growth

Economic growth refers to an increase in real GDP over a period of time.

Actual growth refers to the percentage increase in actual output produced during the given time period considered. It is represented in the PPC as a shift within the boundaries of the curve. It is represented in the AD-AS model as either a shift in the AD or SRAS curve.

Potential growth refers to the percentage increase in the economy's capacity to produce. It is represented in the PPC as a shift of the boundary outwards, while in the AD-AS model it is represented as a rightward shift of the LRAS curve.

Causes of economic growth

- Actual growth
    - Growth of AD due to a rise in C, I, G, or (X – M) or implementation of expansionary demand-side policies
    - Growth of SRAS possibly due to a fall in factor prices, business taxes or rise in subsidies
- Potential growth

    - Increasing quantity, quality of factors of production and technological improvements.

Consequences of economic growth

- Increased levels of material living standards
- Enhanced non-material living standards
- Higher tax revenues
- Greater equity – redistribution of income
- Inflation e.g. demand-pull, affecting vulnerable groups
- Possibility of higher structural unemployment especially due to technological changes
- Lack of sustainability

Consider effects on developing and developed countries.

Unit 2.3.4: Equity in the distribution of income, goods and services

Equity – distribution of income as fair and just.
Equality – equal income distribution across the population.

Causes of income inequality

- Ownership of factors of production is highly unequal
- Prices of factors of production determined in the market vary enormously

Indicators of income inequality

- **Size distribution** – examining how evenly income is distributed among the population in intervals of 20% or so
- **Lorenz curve** – a graphical representation of the proportion of national income earned by any given percentage of the population in an economy, illustrated below

- **Gini coefficient** – a summary measure of the ratio of the area between the Lorenz curve and the 45-degree line to the whole area below the 45-degree line. Area A divided by Area (A+B). The closer the value is to 1, the higher the income inequality.

Poverty – an inability to satisfy minimal consumption needs

Absolute poverty – living below a certain level of income that is necessary to meet basic needs. The World Bank officially defines it as living on less than 2USD a day.

Relative poverty – living below the prevailing standards of living that are typical in a society. (Below the poverty line)

Possible causes of poverty

- **Low incomes**
- **Unemployment**

- **Low levels of human capital**
- **Low levels of land or capital ownership**
- **Poverty (vicious cycle)**

Possible consequences of poverty
- **Low living standards**
- **Lack of access to healthcare and education**
- **Social problems**
- **Inability to realize potential**

Taxation – a compulsory contribution imposed by the government on individuals or firms. They are levied generally for the purpose of obtaining revenue, reducing production and consumption and to redistribute income and wealth.

Direct taxes refer to a tax that is imposed directly on the individual. The burden cannot be shifted. Examples are as follows:
- **Personal income tax**
- **Corporate tax**
- **Capital gains tax** – levied on the gains from selling of real or financial assets.
- **Property tax**

Indirect taxes refer to a tax imposed on the production of goods and services, which a firm may pass on to consumers via an increase in the prices of goods, and services. Examples include:
- **Sales tax**
- **Customs duties**

Average tax rate – total taxes paid by a person divided by his total income

Marginal tax rate – additional tax paid per additional dollar of income

Progressive taxation – high-income taxpayers pay a larger fraction of their income than low-income taxpayers: higher incomes have higher ATR levied (MTR > ATR)
Regressive taxation – low-income taxpayers pay a larger fraction of their income than high-income taxpayers: higher incomes have lower ATR levied (MTR < ATR)
Proportional taxation – both pay the same fraction: higher incomes have equal ATR levied (MTR = ATR)

Taxation in redistribution of income
- Progressive personal income tax helps to promote income equality but does not increase the income of the poor.
- Raising certain direct taxes will affect the rich more.
- However, this may lead to higher risks of tax evasion and reduced work effort.

Other methods to promote equity include:

- **Transfer payments** – payments of income which are not a return for the provision of current factor services
    - **Means-tested benefits** are only available to those below a certain income level
    - **Universal benefits** are available to everyone
    - **Evaluation** suggests that it is a burden on the government and always entails an opportunity cost. Not everyone applies for benefits even if they require it. The level of income above which ineligibility sets in may be set too high. It also ignores the special needs of many poor people.
- **Subsidized provision** – governments offering education and healthcare services for free or almost free of charge.
    - **Evaluation** suggests that it is a burden on the government and always entails opportunity costs
- **Price controls in markets** – minimum wage**,** food price ceilings**,** price floors for farmers etc.
    - **Evaluation** suggests that it leads to market failure and loss of welfare.
- **Investment in human capital** – increasing the quality of factors of production
    - **Evaluation** suggests that it tends to be long-term and has a lag effect. It also requires subsidies**,** which is a burden. It is also contingent on the receptiveness of workers.

Unit 2.4: Fiscal Policy

Refers to the government manipulating the level of government spending and/or revenue so as to affect the level of AD.

Expansionary policy is when government expenditure is raised and/or direct taxes are reduced.

Contractionary policy is when government expenditure is cut and/or direct taxes are raised.

Government revenue is derived from

- **Indirect and direct taxes**
- **The sale of goods and services by government-owned enterprises**
- **The sale of government-owned enterprises or property (i.e. privatization)**

Government expenditure consists of

- **Current expenditures**
- **Capital expenditures**
- **Transfer payments**

A **balanced budget** refers to a budget where the estimated revenue just covers the estimated expenditure.

A **deficit budget** refers to a budget where the estimated revenue falls short of the estimated expenditure.

A **surplus budget** refers to a budget where the estimated revenue exceeds the estimated expenditure.

The two kinds of fiscal policy are automatic stabilizers and discretionary fiscal policy.

Automatic stabilizers refer to built-in stabilizers, which are left to respond automatically without action. These include:

- Progressive taxation
- Transfer payments

Discretionary fiscal policies refer to that which entails the use of the government budget and deliberate manipulation. These include:

- Expansionary fiscal policy – raising G and/or reducing taxes
- Contractionary fiscal policy – lowering G and/or raising taxes

Evaluation of fiscal policy

- **Is a direct instrument of demand-management**
- **Able to target specific sectors of the economy**

- **Able to affect potential output**
- **Uncertain effects of tax changes on spending**
- **Inflexibility of government expenditure**
- **"Crowding out effect"** – reduction in private consumption and investment due to an increase in government spending
- **Time lags (action and effect)**
- **Limited by the Keynesian multiplier**
- **Does not deal with supply-side causes**

Unit 2.5: Monetary Policy

Refers to the government manipulating money supply or interest rate to influence the level of economic activities in the country.

Expansionary policy is when money supply is raised or interest rates are reduced.

Contractionary policy is when money supply is cut or interest rates are raised.

The role of central banks

- **Banker to the government**
- **Banker to commercial banks**
- **Regulator of commercial banks**
- **Conducts monetary policy**

Determination of the rate of interest

Money is defined as anything that is acceptable as payment for goods and services. The demand for money is a downward-sloping shape. The supply of money is an upwards-sloping shape.

Monetary policy refers to conscious attempts by the central bank to influence the level of economic activity by changing the money supply or interest rate.

Expansionary monetary policy increases AD, GPL and real GDP depending on the model. Illustrated below is the classical model.

Evaluating monetary policy

- Quick implementation
- Incremental adjustments
- However, it suffers from time lags
- Possibly ineffective in a recession
- Conflicting government objectives
- Inability to deal with supply side causes of instability

Unit 2.6: Supply-side Policies

Interventionist policies rely on government intervention and deemphasize the role of market forces.

Market-based policies "free up" the market and minimize government intervention.

Interventionist policies include:

- **Investment in human capital**
- **R&D**
- **Provision and maintenance of infrastructure**
- **Direct support for business/industrial policies**

Market oriented policies include:

- **Lowering personal income tax**
- **Lowering corporate tax**
- **Lowering taxes on capital gains and interest income**
- **Reduction in unemployment benefits**
- **Elimination of minimum wage and reduction in trade union power**
- **Privatization**
- **Deregulation**
- **Restricting monopoly power**
- **Trade liberalization**

Evaluating supply-side policy

- Reduces inflationary pressures
- Time lags
- Impact on government budget
- Mixed effects on equity
- Effects on the environment