ECONOMICS

UNIT 1

THE FUNDAMENTAL CONCEPTS OF MACROECONOMICS

INTRODUCTION

The unit is divided into three sections. The first section explores and revisits the definition and focus areas of macroeconomics. The second section examines the key dimensions/challenges of macroeconomics such as economic growth, inflation, unemployment, business cycles and balance of trade. Finally, the third section explores the evolution of macroeconomics and different schools of thought

Learning Outcomes

At the end of this unit, you will be able to:

- identify the difference between macroeconomics and microeconomics.
- describe the focus areas of macroeconomics.
- analyze different challenges of macroeconomics.
- differentiate Classical, Keynesian and Monetarist macroeconomics.
- explain the contribution of different schools of thought for the development of macroeconomics.

Key Concepts

▪	Microeconomics	▪	GDP
▪	GNP	▪	Macroeconomics
▪	Economic growth	▪	Macroeconomic goals
▪	Inflation	▪	Macroeconomic variables
▪	Unemployment	▪	Business cycles
▪	Trade balance		

1.1 Definition and Focus Areas of Macroeconomics Revisited

1.1.1 Definition of Macroeconomics

- Macroeconomics is the study of an economy as a whole, and its focus is the study of broad economy-wide aggregates.
- In a nutshell, macroeconomics is the study of the structure and performance of national economies and of the policies that governments use to try to affect economic performance. Therefore, in order to gain an understanding of broader problems and to find solutions, an adequate knowledge of macroeconomics is a requirement.

1.1.2 The Focus Areas of Macroeconomics

The focus areas of macroeconomics are aggregate behavior of the economy, such as economic growth, employment, inflation, distribution of income, macroeconomic policies and international trade.

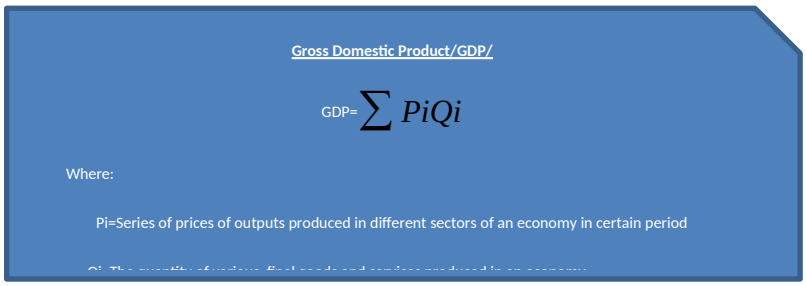
The study of macroeconomics helps us understand and try to find answers for central macroeconomic questions such as:

- What factors determine the flow of total output produced in the economy over time?
- How can a nation increase its rate of economic growth?
- Why do outputs and employment sometimes fail?
- What are the causes of inflation and how it can be controlled?
- How do government policies affect output, unemployment, inflation, and growth?
- How can business cycle downturns be managed?
- How does the domestic economy interact with the rest of the world?

These questions are related to macroeconomic goals. The goals include achieving economic growth, full employment, price stability, as well as reducing budget or balance of payment deficit, and ensuring fair distribution of income in society. Thus, a country's macroeconomic health is examined through such goals as the rise in the standard of living, low unemployment, and low inflation.

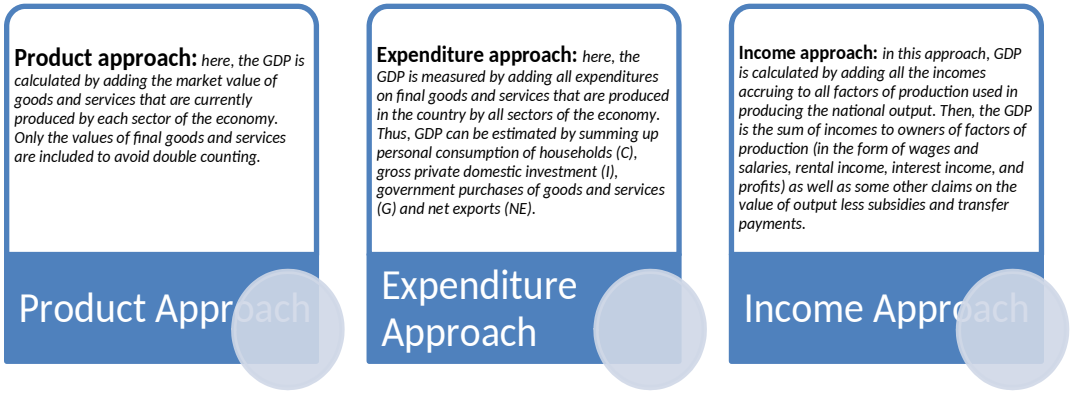
The macroeconomic variables such as Gross Domestic Product (GDP), unemployment rate, and inflation help us determine the macroeconomic performance of a country. By macro economy, we refer to all buying and selling, all production and consumption or everything that goes on in every market in the economy. Hence, the first step towards understanding macro economy is to measure its performance. In a sense, macroeconomics is primarily concerned with the forecasting of GDP, by analyzing the major economic factors that show predictable trends and patterns, and how they influence with each other.

In connection with this, it is necessary to elaborate the concept of GDP which is defined as the measure of the market value of all final goods and services which are produced in a country during a year.



GDP and GNP are functionally related as: GNP = GDP + NFI, where NFI denotes net factor income received from abroad which is equal to factor income received from abroad by a country's citizens less factor income paid for foreigners to abroad.

There are three approaches to measure GDP/GNP. They are product/value added approach, expenditure approach and income approach. Each of them is briefly discussed as follows.



1.2 Key Challenges in Macroeconomics

1.2.1 Economic Growth

Economic growth represents an increase in the capacity of an economy to produce goods and services. It is a necessary ingredient for both high incomes and higher living standards. Higher GDP per capital translates to better diet, health, life expectancy and greater educational opportunity.

The GDP expands or shrinks over time depending on the overall economic environment. The rate at which the real GDP of a country increases over a period of time is known as the "economic growth rate." A higher economic growth rate can be achieved by increasing the amount of factors of production such as labour, land, capital and their productivity. It has to be supported by institutional arrangements such as adherence to the rule of law, the protection of property rights and contractual rights by a country's government so that markets can work effectively and efficiently. Principally, economic growth measures economic performance in terms of value of income, expenditure, and output.

Measuring real income in developing countries is not simple as we may think. This is because in developing countries real income is generally understated compared to that of developed countries. The reasons are:

a. The national income account may understate GDP in developing countries because the majority of the population are subsistence farmers who produce for their own consumption and such outputs are not correctly reported.
b. Underreporting income is common in developing countries due to fear of tax and it is partly due to inefficient taxation systems.
c. Usually, no allowance is made for non-monetary sectors in the national income account of less developed countries.
d. Distortion in prices is much higher in developing countries than in developed ones.
e. The cost of pollution and environmental degradation are not deducted from gross national product to get net GNP in developing countries while in developed countries such as Sweden and the Netherlands, the cost of pollution is deducted to get net GNP.

1.2.2 Inflation

The prices of goods and services do not always stay the same. This means that sometimes they rise and at other times they fall. The word "inflation" represents a regular and continuous rise in the general price level. Since the general price level refers to the average price of goods and services, inflation represents the rising prices of almost all goods and services. Moreover, inflation is cumulative whereby even a small rise in price in the beginning may become a very large one in the future.

Similarly, the rate of inflation denotes the rate of growth or decline of the price level from one year to the next. It is the percentage change in the overall level of prices. It varies greatly over time and across countries. Contrarily, the fall in price level is called "deflation" (see the mathematical formulations on the next page).

Generally speaking, a substantial and rapid rise in the general price level induces a decline in the purchasing power of money, which means people must spend more to buy a liter of milk or a kilogram of sugar. It is obvious that when prices rise, money buys less and the standard of living declines over time. Therefore, inflation increases the cost of living, and decreases the purchasing power of currency.

In order to protect citizens from the increased cost of living, some governments index contracts, wage levels, and interest rates to inflation. Indexing wage contracts and interest rates means that they will increase when inflation increases to retain purchasing power. When wages do not rise as price levels rise, this leads to a decline in the real wage rate and a decrease in the standard of living. For this and other reasons, inflation is the major concern of macroeconomic policy makers throughout the world.

Inflation and Consumer Price Index

Inflation results in an increased consumer price index (CPI). The CPI is a price index whose movement reflects changes in the prices of goods and services typically purchased by consumers. Thus, the CPI of each month reflects the ratio of the current cost of the basket divided by its base-period cost.

$$Cnsumer\ Price\ Index\ /¿CPI/¿\ \frac{The\ current\ Cost\ Of\ Basket}{The\ Base\ Year\ Cost\ Of\ Basket}$$

$$\text{Inflation Rate}=\frac{Current\ Date\ CPI-Past\ Date\ CPI}{Past\ Date\ CPI}X100\%$$

$$=\frac{CPIt-CPIt-1}{CPIt-1}X100\%$$

Assume that the prices of these baskets of goods in three different years are the following.

Year	Price of wheat per K.G	Price of oil per liter
2000 E.C	2 Birr	10 Birr
2001 E.C	3 Birr	13 Birr

2002 E.C	2 Birr	14 Birr
2003 E.C	4 Birr	24 Birr

Find: 1. The price index in each year

2. The inflation rate from 2000EC to 2001 EC, from 2001 EC to 2002 EC, from 2002 EC to 2003 EC from 2003 EC to 2000 EC

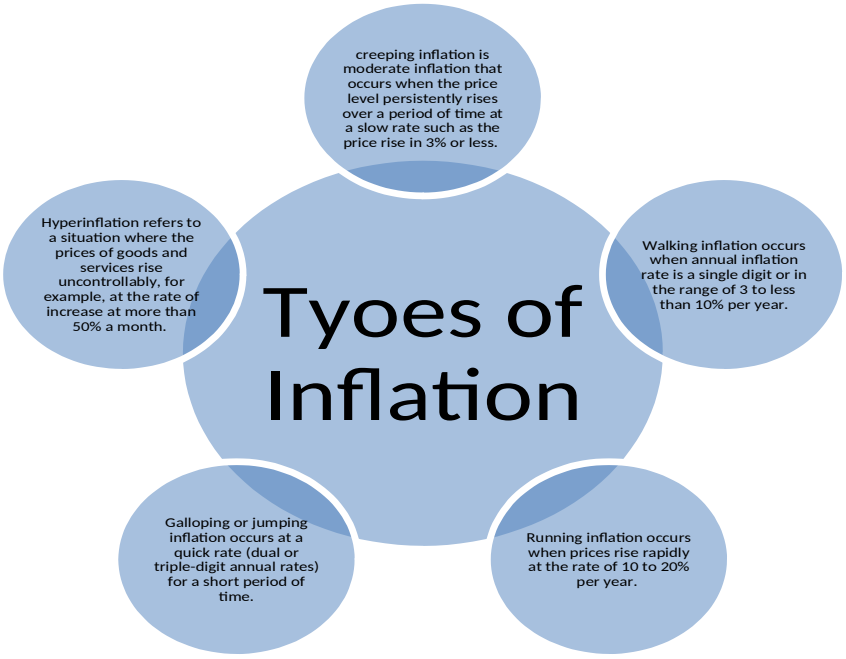
Note: This Your Assignment at home

Types of Inflation

Now, let us explore the type of inflation. It is broadly the case that, during inflation, the supply of goods and services is less in comparison to their demand (i.e. aggregate demand is higher than aggregate supply) resulting in a situation where too much money is chasing too few goods. Yet shortage in supply of goods and services alone does not provide the sole explanation.

Inflation classified on the basis of speed of occurrence and can be termed as

- creeping,
- Walking,
- Running,
- Galloping inflation, and
- Hyperinflation.



Likewise, inflation is also classified on the basis of causes such as demand-pull or cost-push inflation as well as wage, profit, scarcity, deficit, currency, credit and foreign trade induced inflation. Many of these causes are related to how money is supplied and demanded in the economy. For instance, when governments print money to finance expenditure, this translates into an increase in the money supply which causes inflation. The printing of money to raise revenue (also known as seinorage) resembles imposing an inflation tax to be paid by money holders. As prices rise, the real value of the money in one's wallet falls. Hence, inflation is like a tax on holding money (Mankiwi, 2016).

1.2.3 Unemployment

A person is employed if he or she spends some of his/her time working at a paid job. A person is unemployed if he or she is not employed and has been looking for a job or is on temporary layoff. On the other hand, a person who fits into neither of the first two categories, such as a full-time student or retiree, is not in the labour force. In the case of Ethiopia, the population aged 14 to 60 is termed as economically active or of working age. Yet formal employment requires a minimum of 18 years of age. According to the Ethiopian labour law, the labour force does not include children under the age of 14, retired people over 60 years old and those in mental and correctional institutions.

From the economic point of view, unemployment is the macroeconomic problem that affects people most directly and severely. It has economic costs to broader society. For example, when millions of unemployed but willing workers cannot find jobs, economic resources are unused. The opportunity cost of unemployment is the output that the unemployed workers could have produced. Hence, the costs of unemployment justify making a low level of unemployment a public policy priority. In other words, since one aspect of economic performance is how well an economy uses its resources, and workers are the economies main resource, keeping workers employed is a paramount concern of economic policymakers. In order to address the problem of unemployment, policy makers need to know about the labour market, the labour force, labour force participation rate and the unemployment rate. These concepts are detailed below.

The labour force is defined as the sum of the employed and unemployed.

The total labour force refers to the percentage of the population that is willing and able to work. The unemployment rate is defined as the percentage of the labour force that is unemployed or the percentage of those people who want to work and who do not have jobs or those who are out of job despite willingness to work at the existing wage rate.

The labour-force participation rate is the percentage of the adult population that is in the labour force.

Labour Force

$$\text{Labour Force} = \text{Number Of Employed} + \text{Number Of Unemployed}$$

Unemployment Rate

$$\text{Unemployment Rate} = \frac{\textit{Number Of Unemployed}}{\textit{Labour Force}} \text{X}100\%$$

Labour Force Participation Rate

$$\text{Labour Force Participation Rate} = \frac{\textit{Labour Force}}{\textit{Adult Population}} \text{X}100\%$$

There are different types of unemployment. The major ones are

- Frictional,
- Cyclical and
- Structural unemployment.

Frictional unemployment occurs during the time when workers move between jobs which takes time on part of both the employer and the individual to match those who are looking for employment with the correct job opportunities. This results in a lack of perfect mobility of workers between jobs. One example of frictional unemployment is the case of individuals entering the workforce for the first time after graduating from college/ university or searching for their first job. They are unemployed until they get their first job.

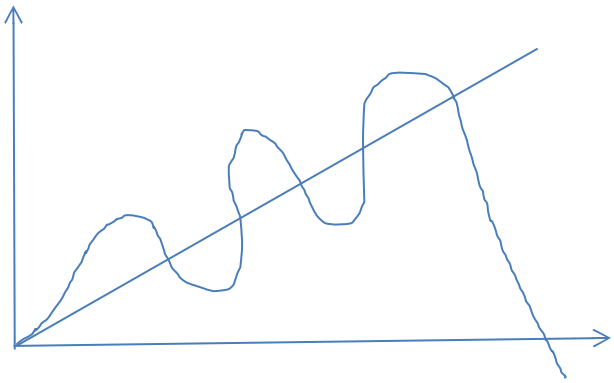
Cyclical unemployment occurs due to a deficiency of aggregate effective demand resulting from business depressions (Dewett,1997). International factors may generate this kind of unemployment. For example, lack of demand for coffee or other agricultural products in overseas markets, resulting from unfavourable business cycles that has a knock-on effect to the employment situation in a domestic economy. Another example of this is that workers will be laid off when the economy is in recession.

Structural unemployment is a form of involuntary unemployment that happens when there is lack of adjustment between demand for and supply of labour. As the name "structural" implies, the economic changes are extensive amounting to a transformation of an economic structure. It is possible that the work force could grow faster than the stock of capital of a country and the addition of the labour force cannot be absorbed in productive employment.

1.2.4 Business Cycle

In real life, economic growth is often accompanied by cycles of expansion and contraction, boom and bust. The term "business cycle" (also known as "trade cycle", "economic cycle" or "boom-bust cycle") refers to economy-wide fluctuations in production, trade, and general economic activities. The fluctuations represent upward and downward movements in levels of GDP or the period of expansions and contractions in the level of economic activities around a long-term growth trend. Business cycles as fluctuations recur with a certain degree of regularity following a pendulum like oscillation. There are upward swings and then downward swings in business.

Business cycles have four distinct phases: expansion, peak, contraction, and trough. An expansion is characterized by increasing employment, economic growth, and upward pressure on prices. A peak is the highest point of the business cycle, when the economy is producing at maximum possible output, employment is at full employment, and inflationary pressures on prices are evident. Following a peak, the economy typically enters a correction which is characterized by a contraction where growth slows, employment declines (unemployment increases), and pricing pressures subside. The slowing ceases at the trough and at this point the economy has hit a bottom from which the next phase of expansion will emerge.



In sum, economic fluctuations are not regular and predictable. Recessions are common but irregular.

1.2.5 Balance of Trade

The balance of trade is another macroeconomic variable that affects national economies. The balance of trade is the difference between export and the import of goods and services of a country for a given period; it is also an important component of the balance of payment of a country.

The balance of payment is the systematic record of a nation's financial transactions with the outside world. It is divided into current and capital accounts. The current account shows the market value of a country's export and import of goods and services, investment income, debt service payments, and private and public net remittances and transfers.

A series of financial crises which are triggered by unbalanced trade can lead economies into deep recessions. These crises begin with large trade deficits. At some point, foreign investors become pessimistic about the economy and move their money to other countries. The economy then, drops into deep recession, with real GDP often falling up to 10% or more in a single year. This happened to Mexico in 1995 when its GDP fell by 8.1%. Several countries in East Asia (Thailand, South Korea, Malaysia, and Indonesia) succumbed to the same economic illness in 1997-1998 (called the "Asian financial crisis"). In the late 1990s and into the early 2000s, Russia and Argentina had the identical experience (Mankiw, 2016).

Problems with trade imbalances do not reduce the importance of the economic benefits from foreign trade. In the globalised world of today, countries benefit from diversity in production possibilities (due to difference in endowments), economies of scale and decreasing costs as the volume of output expands, as well as satisfaction of different tastes/ preferences for commodities from different countries.

Activity

1. Define inflation.
2. List the phases of business cycles.
3. Define trade deficit and surplus.

Unit Summary

Microeconomics focuses on the actions of individual agents within the economy, like households, workers and businesses. Macroeconomics, on the other hand, looks at the economy as a whole by focusing on broad issues such as growth of production, the number of unemployed people, the inflationary increase in prices, government deficits, levels of exports and imports and trade balance. Yet both microeconomics and macroeconomics are complementary perspectives on the subject of the economy.

The focus areas of macroeconomics are aggregate behaviour of the economy, such as economic growth, employment, inflation, distribution of income, macroeconomic policies and international trade. The macroeconomic variables such as gross domestic product (GDP), the unemployment rate, and inflation help us to determine the macroeconomic performance of a country.

Review Questions

Part I: True or False

Read the following sentences and write “True” for correct sentences and “False” for incorrect ones.

1. There is no difference between microeconomics and macroeconomics.

2. Macroeconomics focuses on the economy as a whole.

3. Microeconomic goals include achieving high economic growth, promoting maximum employment or reducing unemployment, attaining stable prices, reducing budget or balance of payment deficit, and ensuring fair distribution of income.

4. Balance of trade is the difference between export and import of goods and services of a country for a given period.

Part II: Multiple Choices

For the following question choose the best answer from the given alternatives.

1. Which one of the following is not a macroeconomic question?

A. What determines the level of economic activity in a society?

B. What determines how many goods and services a nation produces?

C. What determines how many jobs are available in an economy?

D. What causes a firm to grow?

2. Technological change has the largest impact on which form of unemployment?

A. frictional unemployment C. structural unemployment

B. cyclical unemployment D. All of the above

3. If the national economy is closed, i.e. a country has no interaction with the rest of the world, then,

A. GNP > GDP B. GNP < GDP C. GNP =GDP D. All

4. Which one of the following refers to the recurrent ups and downs in the level of economic activity?

A. economic boom B. economic trough C. unemployment D. business cycle

Part III: Short Answers

For the following questions, write short answers.

1. What is economic growth?

2. Differentiate between GDP and GNP.

3. What is inflation?

4. What are the different types of unemployment and their causes?

5. Define a trade or business cycle and its phases.

6. Write the difference between the balance of trade and the balance of payments

End Of Unit One

UNIT -TWO

AGGREGATE DEMAND AND

AGGREGATE SUPPLY ANALYSIS

INTRODUCTION

Aggregate Supply - Aggregate demand (AS-AD) analysis is simply an aggregation of the microeconomic model. Instead of the quantity of output of a single industry, this model represents the quantity of output of an entire economy (national production). Just as there are two sides to a market, a buying side (demand) and a selling side (supply), there are two sides to an economy: demand and supply sides. These are the two forces which operate on the macro economy and they are important tools that help explain the major economic trends. In macroeconomic analysis, we determine the level of overall economic activity in an economy, particularly the levels of output and prices through an interaction of aggregate demand and aggregate supply. This unit presents aggregate demand and aggregate supply, and then study equilibrium of aggregate demand and aggregate supply.

Learning Outcomes

At the end of this unit, you will be able to:

- Distinguish the difference between a change in the quantity demanded and a change in demand.
- Discuss various explanations for wage and price stickiness.
- Demonstrate graphically the short run and long run equilibrium in relation to potential output.
- Explain how the AS–AD model is used to analyze economic fluctuations.

Key Concepts

Aggregate Demand, Aggregate Supply and Equilibrium

2.1 Aggregate Demand

At the end of this section, you will be able to:

- Define concept of aggregate demand.
- Describe the basic determinants of aggregate demand.
- Distinguish the difference between a change in the quantity demanded and a change in demand.

2.1.1 Concept of Aggregate Demand

Aggregate demand (AD) refers to the total amount that different sectors in the economy willingly spend in a given period. This is because it is measured by the total expenditure of the economy's community on goods and services. More specifically, AD is defined as: the total amount of money which all sections (households, firms, and governments) are ready to spend on the purchase of goods and services produced in an economy during a given period.

Alternatively, AD is the sum of spending by consumers, businesses, and governments which depends on the level of prices as well as on monetary policy, fiscal policy and other factors. In other words, it is the total spending by all the entities in the economy. Moreover, we may say aggregate demand is the total expenditure on consumption and investment.

There are four major components of AD. household consumption demand (C)

- private investment demand(I)
- government demand for goods and services (G)
- net export demand (X-M)

So that, (–) AD C I G X M = + + +

A. Consumption (C) is primarily determined by disposable income, which is personal income less taxes, household wealth, longer term trends in income, and the aggregate price level.

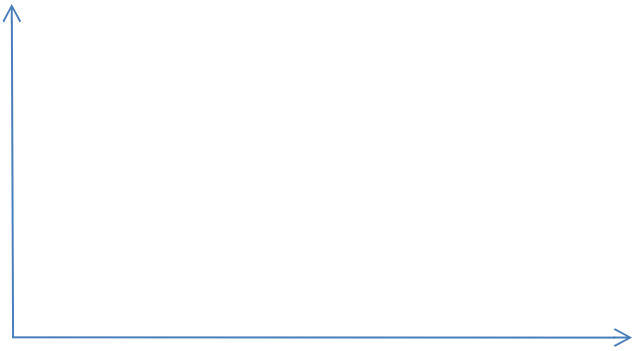
B. Investment (I) spending includes private purchases of structures, equipment's and accumulation of inventories. The major determinants of investment are the level of output, the cost of capital and expectation about the future.

C. Government Purchases (G) of goods and services - This component of AD is determined directly by the government spending decisions.

D. Net Exports (X-M) is the value of exports minus the value of imports. Net exports are determined by domestic and foreign incomes, relative prices and exchange rates.

2.1.2 The Aggregate Demand Curve

The aggregate demand (AD) curve is a schedule that shows the amount of real output that buyers collectively desire to purchase at each price level ceteris paribus. The relationship between the price level and real GDP demanded is inverse or negative.



In general, it is observed that with other factors held constant, aggregate demand rises with a fall in the general price level. The inverse is also true. Thus, the AD curve is a downward sloping curve. It indicates the output (goods and services) which will be demanded in the economy at various general price levels.

Why Does the Aggregate Demand Curve Slope Downward?

Asking why the AD curve slopes downward is the same as asking why there is an inverse relationship between the price level and the quantity demanded of real GDP. This inverse relationship, and the resulting downward slope of the AD curve, is explained by the real balance effect, the interest rate, and the international trade effect.

Real Balance Effect

The real balance effect states that the inverse relationship between the price level and the quantity demanded of real GDP is established through changes in the value of monetary wealth, or money holdings. A rise in the price level causes purchasing power to fall, which decreases a person's monetary wealth. For example, as people become less wealthy, the quantity demanded of real GDP falls.

Interest Rate Effect

This is also called a "money supply effect". A rise in price with a fixed money supply, other things being equal, leads to tight money and produces a decline in total real spending. The inverse relationship between the price level and the quantity demanded of real GDP is established through changes in household and business spending that is sensitive to changes in interest rates. A higher price level increases the demand for money. So, given a fixed supply of money, an increase in money demand will drive up the price paid for its use. That price is the interest rate. Higher interest rates curtail investment spending and interest-sensitive consumption spending. Firms that expect a 6% rate of return on a potential purchase of capital will find that investment is potentially profitable when the interest rate is, say, 5%. But the investment will be unprofitable and will not be made when the interest rate has risen to 7%. Similarly, consumers may decide not to purchase a new house or new automobile when the interest rate on loans goes up. So, by increasing the demand for money and consequently the interest rate, a higher price level reduces the amount of real output demanded.

International Trade Effect

The international trade effect states the inverse relationship between the price level and the quantity demanded of real GDP, which is established through foreign sector spending. Suppose that the price level in Ethiopia rises. As this happens, Ethiopian goods become relatively more expensive than foreign goods. As a result, both Ethiopians and foreigners buy fewer Ethiopian goods. Due to this, the quantity demanded of Ethiopia's real GDP falls.

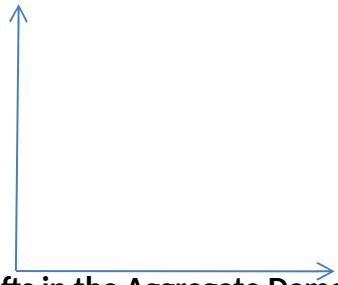
Change in Quantity Demanded Vs Change in Aggregate Demand

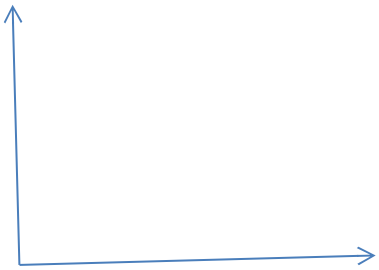
A change in the quantity demanded of real GDP is brought about by a change in the price level. For example, as the price level falls, the quantity demanded of real GDP rises, ceteris paribus. A change in the quantity demanded of real GDP is represented as a movement from one point to another along the same demand curve.

A change in aggregate demand is a shift in the aggregate demand curve from AD1 to AD2). Try to notice also that when the aggregate demand curve shifts, the quantity demanded of real GDP changes even though the price level remains constant. General Price level remaining constant, any positive change in any of these factors causes a rightward shift in the AD curve, and a negative change shifts the AD curve leftward.

These factors include:

- general level of income of the people,
- real interest rate,
- level of economic activity in other countries (it determines the level of exports),
- availability of credit, and
- the level of economic activity in the economy itself.





2.1.3 Shifts in the Aggregate Demand Curve

What are the kinds of variables that lead to shift in aggregate demand? In other words, what can cause aggregate demand to rise and what can cause it to fall? The simple answer to these questions is that aggregate demand changes when the spending on Ethiopian goods and services changes. For example, if spending increases at a given price level, aggregate demand rises; if spending decreases at a given price level, aggregate demand falls.

When individuals, firms, and governments want to buy more Ethiopian goods and services even though the prices of these goods have not changed, then we say that aggregate demand has increased. As a result, the AD curve shifts to the right. Of course, when individuals, firms, and governments want to buy fewer Ethiopian goods and services at a given price level, then we say that aggregate demand has decreased. As a result, the AD curve shifts to the left. In short, a rise in consumption, investment, government purchases, or net exports will increase spending on Ethiopian goods and services. Similarly, a fall in consumption, investment, government purchases, or net exports will lower spending on Ethiopian goods and services.

In this section, we will look at some of the factors that can change consumption, investment, government spending and net exports.

Factors Affecting Consumption

Four factors that can affect consumption are wealth, expectations about future prices and income, the interest rate, and income taxes.

1. **Wealth.**
   Individuals consume not only the basis of their present income but also on the basis of their wealth. Greater wealth makes individuals feel financially more secure and thus, more willing to spend. Increases in wealth lead to increases in consumption. For example, if consumption increases, then aggregate demand rises and the AD curve shifts to the right. What will happen if wealth decreases? Decreases in wealth lead to a fall in consumption, which in its turn leads to a fall in aggregate demand, consequently, the AD curve shifts to the left.
2. **Expectations about future prices and income.**
   If individuals expect higher prices in the future, they increase current consumption expenditures to buy goods at the lower current prices. This increase in consumption leads to an increase in aggregate demand. If individuals expect lower prices in the future, they decrease current consumption expenditures. This reduction in consumption leads to a decrease in aggregate demand. Similarly, expectation of a higher future income increases consumption, which leads to an increase in aggregate demand. In contrast to this, expectation of a lower future income decreases consumption, which leads to a decrease in aggregate demand.
3. **Interest rate.**
   Current empirical work shows that spending on consumer durables is sensitive to the interest rate. Many of these items are financed by borrowing. So, an increase in the interest rate increases the monthly payment amounts which are linked to their purchase and thereby reduces their consumption. This reduction in consumption leads to a decline in aggregate demand. Alternatively, a decrease in the interest rate reduces monthly payment amounts which is linked to the purchase of durable goods and thereby increases their consumption. This increase in consumption leads to an increase in aggregate demand.
4. **Income taxes.**
   As income taxes rise, disposable income decreases and when people have less take-home pay to spend, consumption falls. Consequently, aggregate demand decreases. Reduction in taxes has the opposite effect; it raises disposable income. In other words, when people have more take-home pay to spend, consumption rises and aggregate demand will increase.

Factors Affecting Investment

Three factors that can change investment are the interest rate, expectations about future sales, and business taxes.

1. **Interest rate.**

changes in interest rates affect business decisions. For example, as the interest rate rises, the cost of a given investment project rises and businesses invest less. As investment decreases, aggregate demand also decreases. On the other hand, as the interest rate falls, the cost of a given investment project falls and businesses invest more. Consequently, aggregate demand increases.

2. **Expectations about future sales:**
   Businesses invest because they expect to sell the goods they produce. If businesses become optimistic about future sales, investment spending grows and aggregate demand increases. On the other hand, if businesses become pessimistic about future sales, investment spending contracts and aggregate demand decreases.
3. **Business taxes:**
   Businesses naturally consider expected after-tax profits when making their investment decisions. For example, an increase in business taxes lowers expected profitability. With less profit expected, businesses invest less. As investment spending declines, aggregate demand declines. A decrease in business taxes, on the other hand, rises expected profitability and investment spending. This in its turn increases aggregate demand.

Factors Affecting Government Spending

An increase in government purchases (for example, on military equipment) will shift the aggregate demand curve to the right as long as tax collections and interest rates do not change as a result. In contrast, a reduction in government spending (for example, fewer transportation projects) will shift the curve to the left.

Factors Affecting Net Exports

The main determinants of net export are domestic and foreign incomes, relative price, exchange rate, domestic and foreign trade policies, and preferences and technology. For instance, a change in national income affects net exports. Just as Ethiopians earn a national income, so do people in other countries. For example, as foreign real national income rises, foreigners buy more Ethiopian goods and services. Thus, Ethiopia's exports (EX) rise and as exports rise, net exports rise, ceteris paribus. As net exports rise, aggregate demand increases. This process works in reverse, too. This means that as foreign real national income falls, foreigners buy fewer Ethiopian goods and exports fall. This in its turn lowers net exports, which reduces aggregate demand.

2.2 Aggregate Supply

At the end of this section, you will be able to:

- define concept of aggregate supply.
- construct and interpret the supply curve.
- describe the basic determinants of aggregate supply.

2.2.1 Concept of Aggregate Supply

The aggregate demand and aggregate supply model is the basic macroeconomic model for studying output and price level determination. Aggregate demand is one side of the economy; and aggregate supply is the other side.

Aggregate supply refers to the quantity supplied of all goods and services (real GDP) at various price levels, ceteris paribus. There is a direct or positive relationship between the price level and the amount of real output that firms offer for sale. Aggregate supply includes both short-run aggregate supply (SRAS) and long-run aggregate supply (LRAS). The short-run aggregate supply and long-run aggregate supply are discussed in the following section.

The Keynesian supply curve is horizontal. Firms will supply whatever amount of good is demanded at the existing price level since there is unemployment. Firms can obtain much labour as they want at the current wage. Average costs of production are assumed not to change as their output level changes.

The classical aggregate supply curve is vertical, indicating that the same amount of goods will be supplied whatever the price level based on the assumption that the labour market is always in equilibrium with full employment of the labour force.

2.2.2 The Upward Sloping Aggregate Supply Curve: The Short Run (SRAS)

The short run is a time horizon during which at least one of the firm's inputs cannot be varied, whereas, the long run, is a time horizon that is long enough for a firm to vary all of its inputs.

The amount of output firms are willing to supply depends on the prices they receive for their goods and the amount which they have to pay for labour and other factors of production. Accordingly, the aggregate supply curve reflects conditions in the factor markets as well as the goods markets.

The short-run aggregate supply (SRAS) curve shows the quantity supplied of all goods and services (real GDP or output) at different price levels, ceteris paribus. Notice also that the SRAS curve is upward sloping: as the price level rises, firms increase the quantity supplied of goods and services; as the price level drops, firms decrease the quantity supplied of goods and services.

Why is the SRAS curve upward sloping? Economists have put forth a few explanations, from which we will discuss only two of them,. sticky wages and worker misperceptions.

Sticky wages: some economists believe that wages are sticky, or inflexible. This is the case due to the fact that wages are "locked in" for a few years due to labour contract agreements entered into between workers and employers. For example, management and labour may agree to lock in wages for the next one to three years. Both labour and management may see this as in their best interest. Management has some idea of what its labour costs will be during the time of the contract, and workers may have a sense of security knowing that their wages cannot be lowered. Alternatively, wages may be sticky because of certain social conventions or perceived notions of fairness. Whatever the specific reason for sticky wages, let's see how they provide an explanation of an upward-sloping SRAS curve.

Firms pay nominal wages (e.g., $30 an hour), but they often decide how many workers to hire based on real wages. Real wages are nominal wages which are divided by the price level.

$$\text{Real Wage} = \frac{Nominal\ Wage}{Price\ level}$$

For example, suppose that the nominal wage is $30 an hour, and the price level as measured by a price index is 1.50. The real wage is therefore, $20.

Note that the quantity supplied of labour is directly related to the real wage: as the real wage rises, the quantity supplied of labour rises; as the real wage falls, the quantity supplied of labour falls. However, the quantity demanded of labour is inversely related to the real wage: as the real wage rises, the quantity demanded of labour falls; as the real wage falls, the quantity demanded of labour rises.

With this as background, suppose a firm has agreed to pay its workers $30 an hour for the next three years and it has hired 1,000 workers. When this nominal wage was agreed, it was thought that the price index would remain at 1.50 and the real wage would stay at $20.

Now, suppose that the price index falls to 1.25. When the price level falls to an index of 1.25, the real wage rises to $24 ($30/1.25). This is a higher real wage than the firm expected when it agreed to lock in nominal wages at $30 an hour. If the firm had known that the real wage would turn out to be $24 (and not remain at $20), it would never have hired 1,000 workers. It would rather have hired, say, 800 workers instead.

So, what does the firm do? As we stated, there is an inverse relationship between the real wage and the quantity demanded of labour (the number of workers that firms want to hire). Now that the real wage has risen (i.e. from $20 to $24), the firm cuts back on its labour (say, from 1,000 to 800 workers). With fewer workers working, less output is produced.

In conclusion, if wages are sticky, a decrease in the price level (which pushes real wages up) will result in a decrease in output. This is what an upward-sloping SRAS curve represents: as the price level falls, the quantity supplied of goods and services declines.

Worker misperceptions:

Another explanation for the upward-sloping SRAS curve holds that workers may misperceive real wage changes. To illustrate, suppose that the nominal wage is $30 an hour and the price level as measured by a price index is 1.50. It follows that the real wage is $20. Now, suppose that the nominal wage falls to $25 and the price level falls to 1.25. The real wage is still $20 ($25/1.25 = $20), but workers may not know this. They will know their nominal wage has fallen (they know they are earning $25 an hour instead of $30 an hour). They also may know that the price level is lower, but they may not know initially how much lower the price level is. For example, suppose that they mistakenly believe the price level has fallen from 1.50 to 1.39. They will then think that their real wage has actually fallen from $20 ($30/1.50) to $17.98 ($25/1.39).

In response to (the misperceived) falling real wage, workers may reduce the quantity of labour that they are willing to supply. With fewer workers (resources), firms will end up producing less. In conclusion, if workers misperceive real wage changes, then a fall in the price level will bring about a decline in output, which is illustrative of an upward-sloping SRAS curve.

Changes in Short-Run Aggregate Supply and Shifts in the SRAS Curve

A change in the quantity supplied of real GDP is brought about by a change in the price level. This is shown as a movement along the SRAS curve, but what are the factors that are likely to shift the SRAS curve?

Aggregate Supply is determined by a number of factors. Some of these factors are as follows:

a) cost of input or change in input price

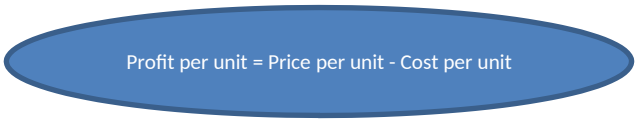
b) domestic Resource availability

- managerial ability, land, labour and capital
- price of imported resource
- market power c) change in productivity

d) state of technology e) tax policy of government (business taxes and subsidies) f) weather (applies particularly to agricultural output)

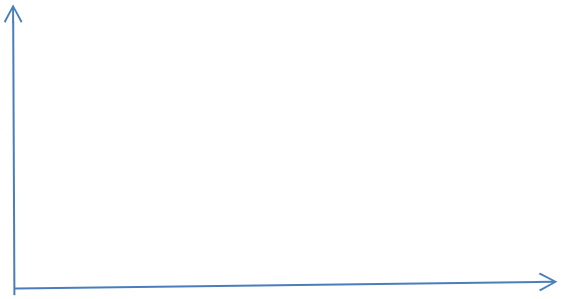
Wage rates:

Labour is the major input that contributes for cost of production. Hence, wage rate can be taken up as an example of cost of input in the supply process. Changes in wage rates have a major impact on the position of the SRAS curve because wage costs are usually a firm's major cost item. The impact of a rise or fall in equilibrium wage rates can be understood in terms of the following equation:



Higher wage rates mean higher costs and, at constant prices, translate into lower profits and a reduction in the number of units (of a given good) managers of firms will want to produce. Lower wage rates mean lower costs and, at constant prices, translate into higher profits and an increase in the number of units (of a given good) managers will decide to produce.

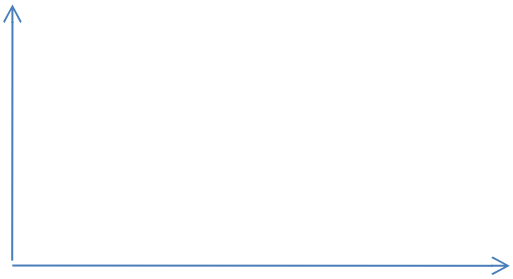
The impact of higher and lower equilibrium wages is shown in Figure 2.4. At the given price level, P1 on SRAS1, the quantity supplied of real GDP is Q1. When higher wage rates are introduced, a firm's profits at a given price level decrease. Consequently, the firm reduces production. This, this corresponds to moving from Q1 to Q2, which at the given price level is point B. Point B represents a point on a new aggregate supply curve (SRAS2). Thus, a rise in equilibrium wage rates leads to a leftward shift in the aggregate supply curve. The steps are simply reversed for a fall in equilibrium wage rates.



2.2.3 The Vertical Aggregate Supply Curve: The Long Run (LRAS)

In this section, we will discuss long-run aggregate supply and draw a long-run aggregate supply (LRAS) curve. We will also discuss long-run equilibrium and explain how it differs from short-run equilibrium. As explained above, economists give different reasons for an upward-sloping SRAS curve. Recall that those reasons have to do with: sticky wages and workers misperception. It follows, then, that short-run equilibrium identifies the real GDP where the economy produces when either of these two conditions hold. In time, wages will become flexible and misperceptions will turn into accurate perceptions. When this happens, the economy is said to be in the long run. In other words, in the long run, these two conditions do not hold.

An important macroeconomic question is: Will the level of real GDP that the economy produces in the long run be the same as in the short run? Most economists say that it will not. They argue that in the long run, the economy produces the full-employment real GDP or the natural real GDP (QN). The aggregate supply curve that identifies the output the economy produces in the long run is the long-run aggregate supply (LRAS) curve.



It follows that long-run equilibrium identifies the level of real GDP that the economy produces when wages and prices have adjusted to their (final) equilibrium levels and there are no misperceptions on the part of workers. Furthermore, the level of real GDP that the economy produces in long-run equilibrium is natural real GDP (QN).

2.3 Equilibrium of Aggregate Demand and Aggregate Supply

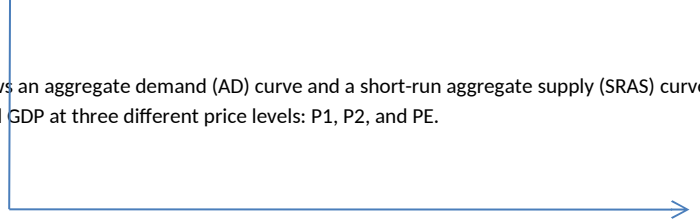
At the end of this section, you will be able to:

- define market equilibrium.
- identify the concepts of short-run and long-run equilibrium.
- analyze how the market reaches equilibrium, and the possible factors that could cause a change in equilibrium.
- differentiate between demand shock and supply shock.

Let's bring aggregate demand and supply together to see how the market price of a product is determined. In this section, we put aggregate demand and short-run aggregate supply together to achieve short-run equilibrium in the economy. Aggregate demand and short-run aggregate supply determine the price level and real GDP.



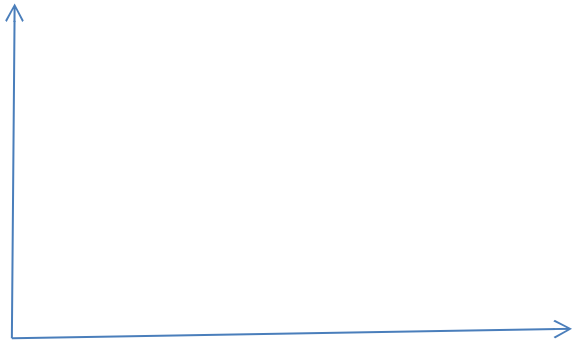
Figure 2.6 shows an aggregate demand (AD) curve and a short-run aggregate supply (SRAS) curve. We consider the quantity demanded of real GDP and the quantity supplied of real GDP at three different price levels: P1, P2, and PE.



At P1, the quantity supplied of real GDP (Q2) is greater than that of the quantity demanded (Q1). There is a surplus of goods. As a result, the price level drops, firms decrease output, and consumers increase consumption. Why do consumers increase consumption as the price level drops? (Hint: Think of the real balance, the interest rate, and the international trade effects.)

At P1, the quantity supplied of real GDP (Q1) is less than that of the quantity demanded (Q2). There is a shortage of goods. As a result, the price level rises, firms increase output, and consumers decrease consumption.

In instances of both surplus and shortages, economic forces are moving the economy towards E, where the quantity demanded of real GDP equals the (short-run) quantity supplied of real GDP. This is the point of short-run equilibrium. PE is the short-run equilibrium price level; QE is the short-run equilibrium real GDP.

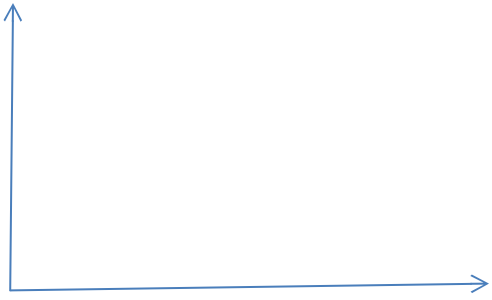


It is probably obvious that the short-run equilibrium of the economy occurs at the intersection of the aggregate demand and short-run aggregate supply curves and that the long-run equilibrium is where the aggregate demand curve intersects the long-run aggregate supply curve. Figure 2.7 shows this state of long-run and short-run equilibrium. If the aggregate demand curve and aggregate supply curves were to remain unchanged, the economy would continue to produce the natural rate of output and have an equilibrium price indefinitely.

2.3.1 Shocks to Aggregate Demand

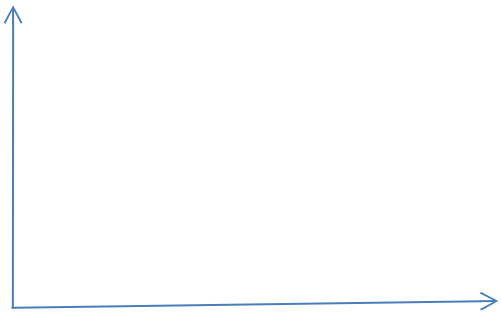
However, as noted above, there are many reasons why the AD and AS curves could shift. A change in aggregate demand, short-run aggregate supply, or both will obviously affect the price level and/or real GDP.

Consider first the effects of a one-time unexpected exogenous positive shock to aggregate demand. This could arise from an expansionary monetary-policy action, an expansionary fiscal-policy action, or an increase in desired expenditures from another source. An increase in aggregate demand shifts the AD curve to the right; more output is demanded at each level of the aggregate price index. A demand shock can either be expansionary or contractionary. An expansionary demand shock shifts the AD curve to the right, increasing both P and Y. Notice that we use the word “expansionary” or “contractionary” to refer to the effect of the shock on the equilibrium level of output.



2.3.2 Shocks to Aggregate Supply

Aggregate supply shocks cause P and Y to change in opposite directions. For example, an improvement in production technology or an increase in the amount of labour or capital resources available would increase the aggregate amount produced and thus, shift the short-run AS curves to the right. A storm that destroyed agricultural crops or a sudden interruption in the availability of imported inputs such as oil might cause a reduction shift to the left in the AS curves. Consider the effects of a negative supply shock. An example of a negative supply shock is an increase in the price of oil. Beginning at point A, an increase in the price of oil causes a decrease in the supply of the product which results in a leftward shift of the aggregate supply curve from SRAS, results in a decrease in output from Y1 to Y2 and an increase in price from Y1 to Y2.



Unit Summary

Aggregate demand refers to the total amount of money which all sections (households, firms, and government) are prepare to spend on the purchase of goods and services that are produced in an economy during a given period. (–) AD C I G X M = + + + The AD curve is a downward sloping curve. It indicates the output (goods and services) which will be demanded in the economy at various general price levels. Determinants of aggregate demand are: general level of income of the people, the real interest rate, and level of economic activity in other countries (it determines the level of exports), availability of credit, and the level of economic activity in the economy itself.

Aggregate supply refers to the quantity supplied of all goods and services (real GDP) at various price levels in a given period of time, ceteris paribus. Determinants of Aggregate supply are: cost of input or change in input price, domestic resource availability, state of technology, tax policy of government (business taxes and subsidies) and weather conditions. The short-run AS curve is upward sloping, whereas the long-run AS curves vertical. Interaction between AD and AS determines the equilibrium level of national output and price level.

INTRODUCTION

In the free market, the equilibrium of a market is determined by the market forces of demand and supply. However, the equilibrium price and the equilibrium quantity of a good may not be the optimal price and quantity. For example, tobacco and alcohol are over-consumed and education and healthcare are under-consumed in the absence of government intervention. Market failure occurs when the free market fails to allocate resources efficiently or distribute goods and services equitably.

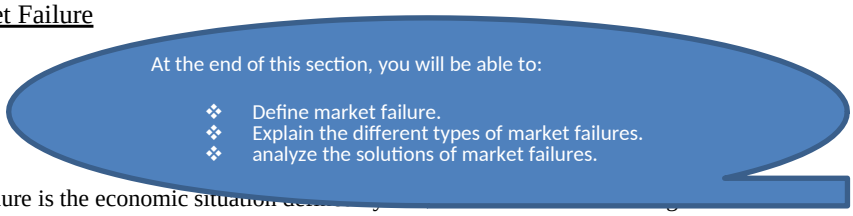
Allocative efficiency is achieved when it is impossible to change the allocation of resources in the economy in a way that will increase the welfare of society. This occurs when marginal social benefit is equal to marginal social cost. Marginal social benefit is the sum of marginal private benefit and marginal external benefit, whereas marginal social cost is the sum of marginal private cost and marginal external cost. On the other hand, external costs and benefits, or externalities, are costs and benefits of consumption or production which are experienced by society other than the producers or the consumers. Although the free market has numerous merits, it may not allocate resources efficiently or distribute goods and services equitably. In this unit, market failure, public goods, externalities, asymmetric information and consumer protection will be discussed

Learning Outcomes

At the end of this unit, you will be able to:

- Define market failure.
- Identify the cause of market failure.
- State the characteristics of public goods.
- Define the concept of externalities and asymmetric Information.
- Explain the concept of consumer protection

3.1 Market Failure



Market failure is the economic situation de[illegible] in the free market. It occurs when the price mechanism fails to account for all of the costs and benefits that are necessary to provide and consume a good. Furthermore, the individual incentives for rational behavior do not lead to rational outcomes for the group. In other words, each individual makes the correct decision for himself/herself, but these may prove to be the wrong decisions for the group. In traditional microeconomics, this is shown as a steady state disequilibrium in which the quantity supplied is not equal to the quantity demanded.

- The structure of market systems contributes to market failure. It is obvious that in the real world that it is not possible for markets to be perfect due to inefficient producers, externalities, environmental concerns, and lack of public goods.
- Government responses to market failure include legislation, direct provision of merit and public goods, taxation, subsidies, tradable permits, extension of property rights, advertising, and international cooperation among governments.

3.1.1 Common Types of Market Failures

Commonly cited market failures include externalities, monopoly, information asymmetries, and factor immobility. One of the examples to illustrate market failure is the public goods problem. Public goods are goods or services for which the producer cannot limit consumption to paying customers and for which the consumption by one individual does not limit the consumption by others. National defense is one such public good because each citizen receives similar benefits regardless of how much they pay. It is very difficult to privately produce the optimal amount of national defense. Since governments cannot use a competitive price system to determine the correct level of national defense, they also face major difficulty producing the optimal amount. This is an example of a market failure with no pure solution.

3.1.2.Solutions to Market Failures

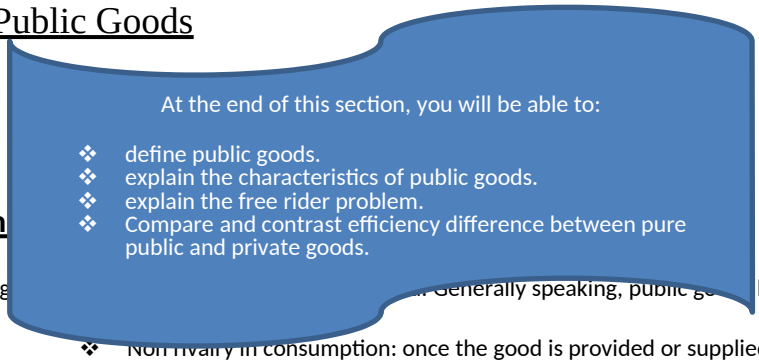
There are many potential solutions for market failures. These can take the form of private market solutions, government-imposed solutions, or voluntary collective action solutions.

Externalities such as pollution are solved with tort lawsuits that increase opportunity costs for the polluter. Tech-companies that receive positive externalities from tech-educated graduates can subsidize computer education through scholarships.

Governments can also impose taxes and subsidies as possible solutions. Subsidies can help encourage behavior that can result in positive externalities. Meanwhile, taxation can help cut down negative behavior. For example, placing a tax on tobacco can increase the cost of consumption, therefore making it more expensive for people to smoke.

Private collective action is often employed as a solution to market failure. Parties can privately agree to limit consumption and enforce rules among themselves to overcome the market failure of the tragedy of the commons. Consumers and producers can band together to form co-ops to provide services that might otherwise be underprovided in a pure market, such as a utility co-op for electric service to rural homes or a co-operatively held refrigerated storage facility for a group of dairy farmers to chill their milk at an efficient scale.

3.2 Public Goods



Defin

Public g[illegible] Generally speaking, public g[illegible] have two major features.

- Non rivalry in consumption: once the good is provided or supplied, consumption by one person does not reduce the quantity which is available for consumption by another. This means that the same amount is left for the remaining consumers. This implies that the cost /marginal cost of allowing another person to consume the good is zero.

- ❖ Non-excludability: it is difficult and expensive to prevent or to exclude someone (non-payers) from consuming the good.

Goods that fulfill both these properties are known as “pure public goods”. Examples of such goods are national defense, clean air, biodiversity, wilderness, etc. These are extreme cases. At the other extreme, pure private goods which are rivalrous in consumption and excludable. Most goods around us fall into this category. E.g. Food items, clothes, household furniture, houses. There are also goods which fall in between these two extremes. A good can satisfy one part of the definition of a public good and not another. These kinds of goods are called “impure public goods”.

Classification of goods as public goods is not absolute; it depends on market conditions and technology. Technology now allows radio or TV broadcasts to be encrypted so that those without a special decoder are excluded from the broadcasts. Many forms of information have characteristics of public goods. For example, a poem can be read by many people without reducing the consumption of those goods by others; in this sense, it is non-rivalrous. However, the individual who wrote the poem may prohibit non-payers from using it through copyright (excludable). Some countries have developed tool booths and radio waves to monitor traffic and enforce some payments of using certain road (for example, Ethiopian express roads Addis Ababa to Adama or Addis Ababa to Hawassa). Hence, with the help of technology excludability can easily be applied.

The Free Rider (Social Loafer)

A person who seeks to enjoy the benefit of public goods without contributing anything to the cost of financing the amount made. This problem was first observed in trade union where not-members benefit from the successful bargaining of unions members. As result, they were not willing to become a member and make a contribution. Free ridership arises because public goods are non-excludable. Since it is difficult to exclude non-payers from using/benefiting, there is an incentive not to pay/to be free rider. It is this free rider problem that causes markets to operate inefficiently for public goods. Suppose that individual A chooses to be free rider. Since B is equally smart, he/she also has an incentive to let other people pay. Hence, there is no automatic force that makes the good provided. For this reason, market failed to supply it. The private market may provide no output as no one is willing to purchase it.

Other Mechanisms for Providing the Efficient Level of Public Goods

In those cases where the private market fails to provide the efficient level of public goods, provision of public goods requires collective action. People need to realize that public goods’ situation exists and either raise contributions from private individuals to fund the public goods or let the government provide the public goods. Mechanisms to provide public goods include the following:

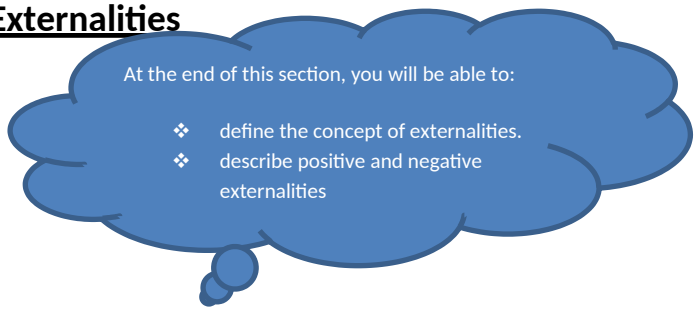
a. private provision of excludable public goods (e.g. movies, music concerts). \

b. public provision of excludable public goods through the use of entrance fees(e.g. entrance fees for a National Park).

c. public provision of non-excludable public goods through the use of tax revenues (e.g. taxes earmarked for national defence).

d. religious beliefs, e.g. church/mosque services are public goods; during the ceremony a basket is passed around for collections. Religion can prevent free riding by convincing people that God is watching.

3.3 Externalities



Definition, Nature and Types of Externality

An externality occurs when the consumption or the production of goods has positive or negative effects on other people’s utility where these effects are not reflected in the price. We distinguish between positive and negative externalities. Positive externalities occur when one person’s consumption of a good also increases other people’s utility without them having to pay for it. On the other hand, negative externality occurs when one person’s

consumption of good decreases, other people's utility without them receiving any compensation. This is also true in case of production. Firms produce goods, but in doing so they also pollute the environment. The pollution does not cost the firm anything, but there is a negative externality to society.

Examples: smoking contaminates the clean air in the room or environment. Non-smokers suffer while they have no part in its in consumption. Downstream farmers suffer from the effects of sewage discharge into rivers, while no compensation is made for them through market mechanism.

The characteristics of externalities are listed below:

1. As mentioned above, externalities can be either positive or negative. Some externalities are beneficial, while others are harmful. An economic agent is said to generate positive externalities when its activities benefit the third party. It generates negative externalities when its activity harms the third party. Here, we consider the producer/seller as first party, and the buyer as the second party. Examples of activities that generate positive externalities include, flower farming, education, street light, neighboring fence, park, beautifying land escape, neatness of neighborhood, etc. Activities that generate negative externalities are smoking, shouting, and manufacturing of products such as textiles or leather garments which emit carbon dioxide to the air and waste into the nearby rivers. Pollution, global warming, and climate change are also negative externalities.

2. Externalities can be generated by consumers or producers. E.g, smoking by individuals and some manufacturing both cause air pollution. Externalities can be viewed as special kind of public good or bad. They are no rival, and non-excludable. And public good generate external benefit.

3. Externalities are reciprocal in nature. A firm may impose externalities on residents by creating bad smell or odor on the other hand, resident demand for less aroma which can be seen as imposing cost upon firm. Fishermen can be thought as polluting as it creates cost upon producers in using the water. Smoker imposes an extensity on non-smoker, but non-smoker also imposes a burden on smoker. This concept is related to the question that whether the injured or injurer is responsible in car accident. Externalities are not the result of one person's action, but results from combined action of two or more parties.

3.4 Asymmetric Information

Asymmetric information is a situation in which different agents have a different amount of information about a good. In other words, asymmetric information is when one party in a transaction is in possession of more information than the other. In certain transactions, sellers can take advantage of buyers because asymmetric information exists whereby the seller has more knowledge of the good being sold than the buyer.

In general, information asymmetry deals with the study of decisions in transactions where one party has more information than another. This creates an imbalance in power in transactions which can sometimes cause the transaction to go away. Two types of problems associated with asymmetric information are adverse selection and moral hazard.

- **Adverse Selection Problem**

This refers to situations where one side of the market cannot observe the "type" or quality of the goods on the other side of the market. It is sometimes known as "hidden information problem" or "anti-selection problem" or "negative selection problem". Adverse selection problem is a term that is used in economics, insurance, statistics and risk management.

Examples:

i) When bad results occur due to information asymmetries between buyers and sellers, the bad products or customers are more likely to be selected.

- **Moral Hazards Problem**

This refers to situation where one side of the market cannot observe the actions of the others. It is sometimes known as "hidden action problem". In simple words, it is the inability to observe and/or verify the agents' action. Furthermore, it is the prospect that a party insulated from risk may behave differently from the way it would behave if it was fully exposed to the risk. A moral hazard problem arises when an individual or situation does not bear the full consequences of its actions, and therefore has a tendency to act less carefully than it otherwise would, leaving another party to bear some responsibility for the consequences of those actions.

Examples:

i) An individual with insurance against automobile theft may be less vigilant about locking his/her car, given that the negative consequences of automobile theft are (partially) borne by the insurance company.

3.5 Consumer Protection

At the end of this section, you will be able to:

- Explain the concept of consumer protection.
- Outline the need for consumer protection.
- Describe the rights and responsibilities of consumers,
- State the main provisions of the Consumer Protection Act.

Concept of Consumer Protection

We buy a variety of goods and receive services in our day-to-day life. Whatever we buy, we pay for it and derive satisfaction from its consumption and use. However, sometimes we do not feel satisfied with the product we buy. This may be on account of poor quality of the product, overcharging by the shopkeeper, lower quantity of parts, misleading advertising, and so on. Should we allow these practices to continue? Obviously not; then, is there any remedy for such malpractices? The answer lies in the concept and practice of consumer protection, the rights and responsibilities of consumers, legal provisions and mechanisms for settlement of consumer grievances. In this section, we will examine the details about all these points.

Consumer protection means safeguarding the interest and rights of consumers. In other words, it refers to the measures adopted for the protection of consumers from unscrupulous and unethical malpractices by the business in order to provide them with speedy redressal of their grievances. The most common business malpractices leading to consumer exploitation are given below.

a) Sale of adulterated goods, i.e., adding something inferior to the product being sold.

b) Sale of spurious goods, i.e., selling something of little value instead of the real product.

c) Sale of sub-standard goods, i.e., sale of goods which do not conform to prescribed quality standards.

d) Sale of duplicate goods.

e) Use of false weights and measures leading to underweight.

f) Hoarding and black-marketing leading to scarcity and rise in price.

g) Charging more than the maximum retail price fixed for the product.

h) Supply of defective goods.

i) Misleading advertisements, i.e., advertisements that falsely claim a product or service is of superior quality, grade or standard. j) Supply of inferior services, i.e., quality of service is inferior to the quality agreed upon etc.

Need for Consumer Protection

The necessity of adopting measures to protect the interest of consumers arises mainly due to the helpless position of the consumers. There is no denying the fact that the consumers have the basic right to be protected from the loss or injury which is caused by defective goods and deficiency of services. But many consumers do not exercise their rights due to lack of awareness, ignorance or laziness. However, in view of the prevailing malpractices and their vulnerability to them, it is necessary to provide them physical safety, protection of economic interests, access to information, satisfactory product standard, and statutory measures for redressal of their grievances. The other main arguments in favour of consumer protection are outlined below.

Social Responsibility

The business must be guided by certain social and ethical norms. It is the moral responsibility of the business to serve the interest of consumers. Keeping in line with this principle, it is the duty of producers and traders to provide the right quality and quantity of goods at fair prices to consumers.

Increasing Awareness

Consumers are becoming more mature and conscious of their rights against the malpractices by business. There are many consumer organizations and associations which are making efforts to build consumer awareness, taking up their cases at various levels and helping them to enforce their rights.

Consumer Satisfaction

Consumers' satisfaction is the key to the success of a business. Hence, business people should take every step to serve the interests of consumers by providing them the quality goods and services at reasonable prices.

Principle of Social Justice

In keeping in line with this principle, it is expected from the manufacturers, traders and service providers to refrain from malpractices and take care of consumers' interest.

Principle of Trusteeship

Manufactures and producers are not the real owners of business. This is because resources are supplied by the society. Businesses are merely the trustees of the resources and, therefore, they should use such resources effectively for the benefit of the society, which includes the consumers.

Survival and Growth of Business

Businesses have to serve consumer interests for their own survival and growth. On account of globalization and increased competition, any business organization which indulges in malpractices or fails to provide improved services to their ultimate consumer should find it difficult to continue. Hence, in their own long run interest, they should become consumer oriented.

Consumer protection experience in Ethiopia

In Ethiopia, the Consumer Proclamation No. 813/2013 has provided the rights to consumers. Here is a brief outline of about these rights of consumers.

1. Consumers should receive t sufficient and accurate information or explanation as to the quality and type of goods or services they purchase.

2. They should buy goods and services on the basis of their own choice.

3. They should not to be obliged to buy because they looked into quality or options of goods and services or they made price bargains.

4. They should be received humbly and respectfully by any business person and be protected from insult, threat, frustration and defamation by the business person.

5. They should be able to claim compensation either jointly or severally from persons who have participated in the supply of goods or services such as the manufacturer, importer, and wholesaler retailer or in any other way for damages suffered as a result of purchase or use of the goods or services.

The main objectives of the Consumer Protection Act in Ethiopia are to:

1. Protect the business community from anti-competitive and unfair market practices, and also consumers from misleading market conducts, and to establish a system that is conducive to the promotion of a competitive free market.

2. Ensure that consumers get goods and services safe and suitable to their health and equivalent to the price they pay.

3. Accelerate economic development.

Unit Summary

Market failure is the economic situation that is defined by an inefficient distribution of goods and services in the free market. Commonly cited market failures include externalities, monopoly, information asymmetries, and factor immobility.

Public goods are goods whose benefits are shared. They have two key characteristics: they are non-excludable and non-rivalrous. These characteristics make it difficult for market producers to sell the goods to individual consumers. Non-excludable means, that it is costly or impossible for one user to exclude others from using a good. Non-rivalrous means, that when one person uses a good, it does not prevent others from using it.

An externality is a cost or benefit that affects an otherwise uninvolved party who did not choose to be subject to the cost or benefit. Economic efficiency is the use of resources to maximize the production of goods; negative externalities are imperfections that limit efficiency. Symmetric information means that all parties have complete information about the economic variables that are relevant for their decisions. However, asymmetric information arises when some parties know more than others.

Consumer protection means that safeguarding the interest and rights of consumers. In other words, it refers to the measures adopted for the protection of consumers from unscrupulous and unethical malpractices by a business and to provide them speedy redressal of their grievances.

nswer from the given alternatives.

1. Which one of the following goods or services is non-excludable?

A. roads B. primary education C. police protection

D. streaming music from satellite transmission programs E. All of the above

2. An externality is defined as:

A. an additional cost that is imposed by the government on producers.

B. a cost or benefit that arises from production and falls on someone other than the producer, or a cost or benefit that arises from consumption and falls on someone other than the consumer.

C. an additional gain received by consumers from decisions made by the government.

D. the additional amount that consumers have to pay to consume an additional amount of a good or service.

E. a marginal social cost.

3. Which one of the following goods is excludable?

A. a bridge that does not charge a toll B. a city bus C. protection from the police force D. the atmosphere E. All of the above

4. Which one of the following goods is non-excludable?

A. the atmosphere B. a taxi C. an art museum D. a toll bridge E. All of the above

5. A common resource is:

A. non-rival and non-excludable B. non-rival and excludable. C. rival and non-excludable.

D. regulated and excludable. E. rival and excludable

6. When a city street is congested, it is:

A. a public good. B. a common resource C. a private good. D. non-rival and excludable. E. non-rival and non-excludable

7. A good that is rival and non-excludable is a:

A. private good. B. regulated good. C. public good. D. common resource. E. government good

8. Free riding can occur if a good is:

A. a private good. B. excludable and non-rival. C. excludable and rival. D. non-excludable and rival. E. non-excludable and non-rival.

9. If a good is a public good,

A. no one can be excluded from enjoying its benefits. B. anyone can be excluded from enjoying its benefits. C. consumers pay a low price.

D. economies of scale exist over the entire range of output for which there is a demand. E. consumers must pay a high price to enjoy its benefits.

10.The tragedy of the commons is the absence of incentives to:

A. discover new common resources. B. export wool in sixteenth-century England. C. prevent overuse of common resources.

D. prevent underuse of common resources. E. reduce marginal cost of common resources

Part II: Matching Match the definitions under Column A (1-5) with the terms under Column B.

A	B
1. Unintended costs or benefits imposed on third parties	A. Market failure
2. Situation in which one side of the market (buyer or seller) has	B. Externalities

more information than the other side (buyer or seller)

3. The failure of the market to achieve an optimal allocation of the economy's resources

4. The cost to society of producing a good including both the private costs and the externalities costs

5. Benefits from these goods are not diminished by consumption and cannot be withheld from anyone

C. Social cost

D. Asymmetric information

E. Moral hazard

F. Adverse selection

Part III: Short Answer and Work Out

For the following questions write short answers and provide required solutions accordingly.

1. What are the two key characteristics of public goods?

2. Name two public goods and explain why they are public goods.

3. What is the free rider problem?

4. Explain why the federal government funds national defence.

UNIT-FOUR

MACROECONOMIC POLICY INSTRUMENTS

INTRODUCTION

Every economy aims at achieving certain well-defined targets relative to its national income and output. Economies over the world also strived for a full employment, stability in prices, and equality in the distribution of income and wealth. How do they plan to achieve all these issues? How are the obstacles to these targets removed? What sorts of macroeconomic policies do they adopt? And how do these policies work? This unit gives us introductory-level answers to some of these questions. Specifically, in this unit, we will look at the different types of polices for controlling economic aggregates and how they function to increase output and stabilize the economy.

Learning Outcomes

At the end of this unit, you will be able to:

- Realize the difference among fiscal, monetary and income policy.
- Distinguish the difference between expansionary and contractionary fiscal and monetary policies.
- Explain how income policy affects aggregate supply and aggregate demand.
- Understand the different exchange rate policies

4.1 Definition and Types of Macroeconomic Policies

At the end of this section, you will be able to:

- Define macroeconomic policy instruments.
- State the general objectives of macroeconomic policy.

We know that macroeconomic analysis deals with the behavior of the economy as a whole with respect to output, income, employment, general price level and other aggregate economic variables. With a view to bringing about desirable changes in such variables, nations, developed as well as developing, need to adopt various macroeconomic policies. These policies and the instruments used for their implementation vary from one economy to another and also according to the prevailing economic conditions within a specific economy. The economy does not always work smoothly. This is because fluctuations often occur in the level of economic activity. At times the economy finds itself in the grip of recession when levels of national income, output and employment are far below their full potential levels. During recession, there is a lot of idle or unutilized productive capacity, that is, available machines and factories are not working to their full capacity. As a result, unemployment of labor increases along with the existence of excess capital stock. On the other hand, at times the economy is “overheated” which means inflation (i.e., rising prices) occurs in the economy. Thus, in a free market economy there is a lot of economic instability.

Every nation wants to raise the level of living of its people. This can be attained by bringing about economic growth which in turn depends on raising the rates of saving and investment and accumulating capital. In this regard, macroeconomic policies can play a useful role in raising the rate of saving and investment and ensure rapid economic growth.

The general objectives of macroeconomic policy are to achieve:

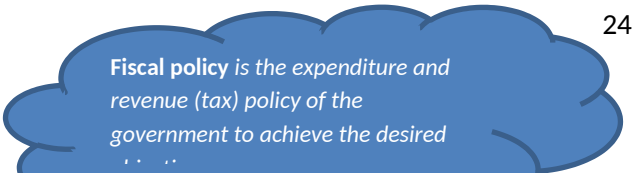
- maximum feasible output
- high rate of economic growth
- full employment
- price stability
- equality in the distribution of income and wealth
- a healthy balance of payments.

To achieve these objectives, different types of macroeconomic policies – fiscal, monetary, income, and foreign exchange policies – are adopted. Each of these policies and their instruments are discussed below.

4.2.Fiscal Policy

At the end of this section, you will be able to:

- explain fiscal policy.
- distinguish the difference between expansionary and contractionary fiscal policy.
- explain how expansionary and contractionary fiscal policy can shift aggregate demand and influence the economy.
- analyse the reason why fiscal policy is important.



Definition

4.2.1 Tools of Fiscal Policy

There are two key tools of the fiscal policy:

1.Taxation: funds in the form of direct and indirect taxes, capital gains from investment, etc., help the government function. Taxes affect the consumer's income and changes in consumption lead to changes in real gross domestic product (GDP).

2.Government spending: it includes welfare programs, government salaries, subsidies, infrastructure, etc. Government spending has the power to raise or lower real GDP; hence it is included as a fiscal policy tool.

Government spending/expenditure has four major components, namely, government spending, transfer payments, grants in aid, and net interest payments.

(a) Government spending (G) :Government spending is the sum of government expenditures on final goods and services. It includes salaries of public servants, purchase of weapons for the military, and any investment expenditure by a government

(b) Transfer payments : Transfer payments are direct payments to individuals- such as unemployment insurance benefits, social security benefits, Medicare, or welfare payments - where goods or services are not provided in return. They are commonly referred to as entitlements because they are not made on a discretionary basis, but are locked in by earlier legislation.

(c) Grants in aid: This reflects federal assistance to state and local governments. (d) Net interest payments Net interest payments are interest payments that are made to holders of government debt, less interest which is paid to the government for debts like student loans.

From the revenue side, the four major components of tax revenue (taxes) are the following:

- Personal taxes are composed of income taxes and property taxes, and are major sources of total government revenue.
- Contributions for social insurance are primarily social security taxes, which are assessed as a fixed percentage of a worker's wages, up to a fixed ceiling (or cap).
- Taxes on production and imports are primarily sales taxes, but they also include taxes on imported goods, known as "tariffs".
- Corporate taxes are primary taxes on the profits of businesses.
- Grants in aid are the federal assistance to state and local governments and are revenue for them (while they are spending for the federal government).

4.2.2 Types of Fiscal Policy

A fiscal policy can be of two types – expansionary or contractionary depending upon prevailing economic conditions.

I. **Expansionary Fiscal Policy**

In a situation in which an economy is facing the problem of deficient demand, i.e., aggregate demand falling short of output at full employment, there is a depression marked by overproduction, a rise in unemployment, and a fall in prices and incomes. To increase the aggregate demand and thereby total output and employment levels, expansionary fiscal policies are adopted by governments. The major instruments of expansionary fiscal policy are:

- **Expenditure policy (increase expenditure):** the objective of an expenditure policy should be to pump more money into the system in order to boost demand. During a period of deficiency in demand, the government should make large investments in public works like the construction of roads, bridges, buildings, railway lines, canals, etc. In such periods, the government should also provide free education and medical facilities, even though these activities might enlarge budget deficits.
  The aim is to put more money in the hands of people so that they would also spend more.
- **Revenue policy (reduce tax rate):** Taxes on personal incomes and taxes on expenditures on buildings etc. should be reduced. If possible, taxes on lower income groups should be abolished in order to increase their disposable income for spending. In

addition, subsidies, old age pensions, unemployment allowances, grants, interest-free loans, expand so as to increase aggregate demand in the economy.

II. Contractionary Fiscal Policy

When an economy's aggregate demand is for a level of output that is more than the full-employment, the demand is said to be an excess demand. In other words, excess demand refers to the excess of aggregate demand over the available output at full employment. This gap results in an inflationary situation as it causes inflation (a continuous rise in prices) in the economy. To control the situation of excess demand and thereby reduce the pressure of high inflation, contractionary fiscal policies are adopted by governments. Major instruments of contractionary fiscal policy are:

- **Expenditure policy (reduce expenditure):** In a situation of excess demand, the government should curtail its expenditures on public works such as roads, buildings, rural electrification, irrigation work, etc., thereby reducing the money income of the people and thus, their demand for goods and services. In this way, the government will reduce the budget deficit, which shows excess expenditure over revenue. \
- **Revenue policy (increase taxes):** during inflation, the government should raise rates of all taxes, especially taxes on rich people, because taxation withdraws purchasing power from the taxpayers and, to that extent, reduces effective demand. Care should be taken that measures adopted to raise revenue are disinflationary and at the same time have no harmful effects on production and savings.

4.3 Monetary Policy

At the end of this section, you will be able to:

- Contrast expansionary monetary policy and contractionary monetary policy.
- Explain how monetary policy impacts interest rates and aggregate demand.
- Analyze why monetary policy is important.

Definition

Monetary policy *is the process of drafting, announcing, and implementing the plan of actions taken by the National Bank, or other monetary authority of a country that controls the quantity of money in an economy and the channels by which new money is supplied*

The National Bank is a government agency that oversees the banking system and is responsible for the conduct of monetary policy. This bank takes different names in different countries: the Federal Reserve System in the United States and National Bank in Ethiopia, for instance.

Monetary policy consists of the management of money supply and interest rates, aimed at meeting macroeconomic objectives such as controlling inflation, consumption, growth, and liquidity. This is achieved by actions such as modifying the interest rate, buying or selling government bonds, regulating foreign exchange rates, and changing the amount of money which banks are required to maintain as reserves.

Monetary policy is formulated based on inputs which are gathered from a variety of sources. For instance, the monetary authority may look at macroeconomic numbers such as gross domestic product (GDP) and inflation, industry/sector-specific growth rates and associated figures, as well as geopolitical developments in international markets— including oil embargos or tradetariffs. These entities may also ponder concerns which are raised by groups representing industries and businesses, survey results from organizations of repute, and inputs from the government and other credible sources.

4.3.1 Tools of Monetary Policy

The National Bank influences the money supply indirectly by changing the monetary base or the reserve deposit ratio. To do this, it has three instruments/tools at its disposal:

1.Open market operations (OMO): these are the purchases and sales of government bonds by the National Bank. The Birr it pays when the National Bank purchases bonds increases the monetary base and the money supply. When the National Bank sells bonds to the public, the Birr it receives reduces the monetary base and then, decreases the money supply.

2. Discount rate (DR): the discount rate is the interest rate that the National Bank charges banks to borrow funds from a National Bank. The discount rate is set by the National Bank's board of governors, and can be adjusted up or down as a tool of monetary policy. It is usually set below the short term inter-bank market rate. Accessing the discount window allows institutions to vary credit conditions (i.e., the amount of money they have to loan out), thereby affecting the money supply. Through the discount window, the central bank can affect the economic environment, and thus unemployment and economic growth. In Ethiopia the discount window facility for commercial banks started in March 2001.

3. Discount rate (DR): the discount rate is the interest rate that the National Bank charges banks to borrow funds from a National Bank. The discount rate is set by the National Bank's board of governors, and can be adjusted up or down as a tool of monetary policy. It is usually set below the short term inter-bank market rate. Accessing the discount window allows institutions to vary credit conditions (i.e., the amount of money they have to loan out), thereby affecting the money supply. Through the discount window, the central bank can affect the economic environment, and thus unemployment and economic growth. In Ethiopia the discount window facility for commercial banks started in March 2001.

NOTE

The NBE uses this instrument to control the liquidity of banks by varying the rate according with the targeted level. The higher reserve requirement contracts the liquidity as well as credit expansion power of commercial banks and the opposite will increase liquidity and credit expansion power of banks. The National Bank of Ethiopia cut the minimum deposit reserve from 15% to 10% in January 2012. It also cut the liquid assets to deposits ratio by the same margin to 20% from 25% previously. The move is aimed to encourage banks to lend money, particularly to the export sector.

4.3.2 Types of Monetary Policies

Generally speaking, monetary policies can be categorized as either: a monetary policy that lowers interest rates and stimulates borrowing, i.e. an expansionary monetary policy or loose monetary policy, conversely or a monetary policy that raises interest rates and reduces borrowing in the economy, i.e. a contractionary monetary policy or tight monetary policy.

1. Expansionary Monetary Policy

If a country is facing a high unemployment rate during a slowdown or a recession, the monetary authority can opt for an expansionary policy which aims at increasing economic growth and expanding economic activity. As a part of expansionary monetary policy, the monetary authority often lowers the interest rates through various measures, serving to promote spending and make money-saving relatively unfavorable.

Increased money supply in the market aims to boost investment and consumer spending. Lower interest rates mean that businesses and individuals can secure loans on convenient terms to expand productive activities and spend more on big-ticket consumer goods.

Major instruments of expansionary monetary policy are discussed below:

1. **Reducing a discount rate:** to increase money supply, the National Bank reduces the discount rate and then, enables the commercial banks to take more loans from it and in turn to give more loans to producers (investors) at lower interest rates.
2. **Buying securities through open market operations:** this refers to the buying and selling of government securities which influence money supply in the economy. For example, during a depression, the central bank buys government bonds and securities from commercial banks, paying in cash to increase their cash stock and lending capacity.
3. **Reducing required reserve ratio:** every commercial bank is required to keep with the central bank a particular percentage of its deposits or reserves in the form of cash. This percentage is called the "required reserve ratio (RRR)" or "cash reserve ratio (CRR)". During a depression, the central bank lowers the CRR, thereby increasing commercial bank's capacity to give credit.

If the economy is suffering a recession and high unemployment, with output below potential GDP, expansionary monetary policy can help the economy return to potential GDP.

2. Contractionary Monetary Policy

Increased money supply can lead to higher inflation, raising the cost of living and cost of doing business. Contractionary monetary policy, increasing interest rates, and by slowing the growth of the money supply, aims to bring inflation down. This can slow economic growth and increase unemployment but it is often necessary to cool down the economy and keep it in check.

Major instruments of contractionary monetary policy are discussed below:

1. Increasing the discount rate: in a situation of excess demand leading to inflation, the central bank raises its rate. This raises the cost of borrowing, which discourages commercial banks from borrowing from the central bank. An increase in the bank rate forces the commercial banks to increase their lending rates of interest, which makes credit costlier. As a result, the demand for loans falls. On the other hand, the high rate of interest induces households to increase their savings by restricting expenditure on consumption and discourages investment. Thus, expenditure on investment and consumption is reduced, thereby reducing the aggregate demand.

2. Selling securities through open market operations: during inflation, the central bank sells government securities to commercial banks, which lose an equivalent amount of their cash reserves, thereby reducing their capacity to offer loans. This absorbs liquidity from the system. Consequently, there is a fall in investment and in aggregate demand.

3.Increasing the RRR: during inflation, the central bank increases the RRR, thereby curtailing the lending capacity of commercial banks.

4.4 Income Policy and Wage

At the end of this section, you will be able to:

- state income policy.
- explain how income policy impacts aggregate supply and aggregate demand.
- explain minimum wages and the effect of 'pricing policy
- summarize the purposes of income policy.

Income policies in economics are economy-wide wages and price controls, most commonly instituted as a response to inflation, and usually seeking to establish wages and prices below free market level. Income policies vary from "voluntary" wage and price guidelines to mandatory controls such as price/wage freezes.

Income policy is the suitable complement for expansionary monetary and fiscal policies, in particular under conditions that reduce the space for further macroeconomic expansion.. In some developing countries, wage expansion has proved to be a more reliable source of demand expansion. A policy that maintains real wages expanding in line with productivity would provide a sustainable source of domestic demand expansion.

In an inflationary environment, it is possible to stabilize the price level through the instruments of the income policy. Governments can take this step if restrictive fiscal and monetary policies fail to reduce the increasing price level. We can use these tools of the income policy to preserve price stability:

Determination of wage rates in a free market

Just as in any market, the price of labour, the wage rate, is determined by the intersection of supply and demand. When the supply of labour increases, the equilibrium price falls, and when the demand for labour increases, the equilibrium price rises.

A perfectly competitive labour market has the following characteristics:

- A large number of firms competing with each other to hire a specific type of labour to fill identical jobs.
- Numerous qualified people who have identical skills and independently supply their labour services.
- "Wage taking" behavior, that is, neither workers nor firms exert control over the market wage,
- Perfect, costless information and labour mobility.

Market labour demand is a "price adjusted" downward- sloping curve, whereas, the market labour supply however, generally slopes upward to the right, indicating that collectively workers will offer more labour hours at higher relative wage rates. Higher relative wages attract workers away from either household production, leisure, or other labour markets and towards the labour market in which the wage is increased. This means that even though there are some workers who reduce hours of work as wage rate increase, there are still new workers who enter into the labour market looking at the higher wage rate.

Minimum Wages

A minimum wage is the lowest wage per hour that a worker may be paidas mandated by federal law. In simple words, it is a legally mandated price floor on hourly wages, below which workers may not be offered or accept a job.

Minimum wages have been defined as the minimum amount of remuneration that an employer is required to pay to wage earners for the work that is performed during a given period, which cannot be reduced by collective agreement or an individual contract.

The purpose of minimum wages is to protect workers from unduly low pay. They help ensure a just and equitable share of the fruits of progress to all, and a minimum living wage to all who are employed and in need of such protection. Minimum wages can also be one element of a policy to overcome poverty and reduce inequality, including between men and women, by promoting the right to equal remuneration for work of equal value.

Pricing Policy

One of the income policies in economics is price controls; most commonly instituted as a response to inflation, and usually seeking to establish prices which are below free market level. Price ceilings and price floors are the two types of price controls. They do the opposite thing, as their names suggest. A price ceiling puts a limit on the cost that one has to pay or that one can charge for something; it sets a maximum cost, keeping prices from rising above a certain level. A price floor establishes a minimum cost for something, a bottom-line benchmark. It keeps a price from falling below a particular level.

1.Price Ceiling

A price ceiling is the mandated maximum amount that a seller is allowed to charge for a product or service. Usually set by law, price ceilings are typically applied to staples such as food and energy products when such goods become unaffordable to regular consumers. A price ceiling is a maximum legal price below the equilibrium price.

2Price Floor

A price floor is a government- or group-imposed price control or limit on how low a price can be charged for a product, good, commodity, or service. A price floor must be higher than the equilibrium price in order to be effective. An example of a price floor is minimum wage laws, where the government sets out the minimum hourly rate that can be paid for labour.

Price floors are often imposed by governments; however, there are also price floors which are implemented by non-governmental organizations such as companies, and the practice of resale price maintenance. With resale price maintenance, a manufacturer and its distributors agree that the distributors will sell the manufacturer's product at certain prices (resale price maintenance), at or above a price floor (minimum resale price maintenance).

4.5 Foreign Exchange Policies

At the end of this section, you will be able to:

- explain how appreciating or depreciating currency affects exchange rates.
- analyze how the foreign exchange market works.
- identify exchange rate policies.

The policy of the exchange rate affects aggregate demand through its effect on export and import prices of tradable goods and services; in turn, influencing other prices in the economy depending on the foreign exchange regime in place. The policymakers may exploit this connection, in order to influence the macroeconomic trends through the so called foreign exchange policy, which is defined as the foreign exchange regime including floating, fixed, managed, etc. and regulates foreign exchange transactions in the financial system.

Most countries have different currencies, although that is not true in all cases. Sometimes small economies use an economically larger neighbor's currency. For example, Ecuador, El Salvador, and Panama have decided to dollarize; that is, to use the US dollar as their currency. Sometimes nations share a common currency. A large-scale example of a common currency is the decision by 17 European Nations—including some very large economies such as France, Germany, and Italy to replace their former currencies with the Euro. With these exceptions, most of the international economy takes place in a situation of multiple national currencies in which both people and firms need to convert from one currency to another when selling, buying, hiring, borrowing, travelling, or investing across national borders. We call the market in which people or firms use one currency to purchase another currency, the foreign exchange market. Exchange rate policy is concerned with how the value of the domestic currency, relative to other currencies, is determined. An

Types of Exchange Rate Policies

a) Fixed Exchange Rate Policy

Exchange rate is determined by the government's political and economic decisions. There are some problems which are associated with this policy. An example is the creation of a parallel market (also known as a "black market"). Governments use fixed exchange rate systems to accomplish various goals. For example, an undervalued exchange rate acts as an import tax and an export subsidy. Fixing the exchange rate at an artificially low level promotes domestic industries by encouraging exports and discouraging imports. It can also hurt other industries by increasing the price of imported inputs. An overvalued exchange rate has the opposite effect, acting as an import subsidy and an export tax. Fixing the exchange rate at an artificially high level, benefits domestic consumers by encouraging imports and discouraging exports, through decreasing the price of imported inputs.

Fluctuation in exchange rate under fixed exchange rate policy:

- **Devaluation:** an increase in the exchange rates due to political and economic decisions of the government.
- **Revaluation:** a decrease in exchange rate due to political and economic decisions of the government.

b) Flexible/Floating Exchange Rate Policy

Exchange rate determination is left for market forces. A flexible/floating exchange rate is a regime where the currency price of a nation is set by the foreign exchange market based on supply and demand relative to other currencies.

Fluctuation in the exchange rate under flexible exchange rate policy:

- **Depreciation:** an increase in exchange rate due to market forces.
- **Appreciation:** a decrease in exchange rate due to market forces.

The exchange rate under a floating exchange rate policy is determined by the supply and demand for foreign currencies.

Impact of Exchange Rate Fluctuation

a) Impact of devaluation and depreciation: improves the current account balance and/or overall balance of payment by making exports cheaper and imports more expensive. Given a depreciation of a currency, foreigners find exports cheaper while residents find imports more expensive.

b) Impact of revaluation and appreciation: worsens the external balance by making exports more expensive and import cheaper than before. Given an appreciation of a currency, foreigners find exports more expensive while residents find imports cheaper. All else being equal, an appreciation raises the relative price of the country's exports and decreases the relative price of its imports. Depreciation has the opposite effect.

Key Factors that Affect Foreign Exchange Rates

The foreign exchange rate is one of the most important means through which a country's relative level of economic health is determined. A country's foreign exchange rate also provides a window to its economic stability, which is why it is constantly watched and analyzed. If you are thinking of sending or receiving money from overseas, you need to keep a keen eye on the currency exchange rates.

1. **Inflation rates:**
   Changes in market inflation cause changes in currency exchange rates. A country with a lower inflation rate than another will see an appreciation in the value of its currency. The prices of goods and services increase at a slower rate where the inflation is low. A country with a consistently lower inflation rate exhibits a rising currency value while a country with higher inflation typically sees depreciation in its currency and is usually accompanied by higher interest rates.

2. **Interest rates:**
   Changes in the interest rate affect currency value and dollar exchange rate. Foreign exchange rates, interest rates, and inflation are all correlated. Increases in interest rates cause a country‘s currency to appreciate because higher interest rates provide higher rates to lenders, thereby attracting more foreign capital, which causes a rise in exchange rates.
3. **Balance of payments:**
   A country's current account reflects the balance of trade and earnings on foreign investment. It consists of the total number of transactions

including its exports, imports, debt, etc. A deficit in the current account due to spending more of its currency on importing products than its earning through sale of exports causes depreciation.

4. **Government debt:**

This is public debt or national debt that is owned by the central government. A country with government debt is less likely to acquire foreign capital, leading to inflation. Foreign investors will sell their bonds in the open market if the market predicts government debt within a certain country. As a result, a decrease in the value of its exchange rate will follow.

5. **Terms of trade:**

Related to current accounts and balance of payments, the terms of trade is the ratio of export prices to import prices. A country's terms of trade improves if its export' prices rise at a greater rate than its imports prices. This results in higher revenue, which causes a higher demand for the country's currency and an increase in its currency's value. This in its turn results in an appreciation of the exchange rate.

6.Political stability and performance:

A country's political state and economic performance can affect its currency strength. For example, a country with less of political turmoil is more attractive to foreign investors, so, drawing investment away from other countries with more political and economic stability. An increase in foreign capital, in its turn leads to an appreciation in the value of its domestic currency. A country with sound financial and trade policy does not give any room for uncertainty in the value of its currency. However, a country prone to political unrest may see depreciation in exchange rates.

7.Recession:

When a country experiences a recession, its interest rates are likely to fall, decreasing its chances to acquire foreign capital. For this reason, its currency weakens in comparison to that of other countries, therefore lowering the exchange rate.

8.Speculation:

If a country's currency value is expected to rise, investors will demand more of that currency in order to make a profit in the near future. Thus, the value of the currency will rise due to the increase in demand. With this increase in currency value comes a rise in the exchange rate as well.

Advantages and Disadvantages of Fixed Exchange Rate Systems

1. Advantages of fixed exchange rates

- **Certainty -** with a fixed exchange rate, firms will always know the exchange rate which makes trade and investment less risky.
- **Absence of speculation -** with a fixed exchange rate, there will be no speculation if people believe that the rate will stay fixed with no revaluation or devaluation.
- **Constraint on government policy -** if the exchange rate is fixed, then the government may be unable to pursue extreme or irresponsible macro-economic policies as these would cause a run on the foreign exchange reserves and this would be unsustainable in the medium-term.

2. Disadvantages of fixed exchange rates

- **The economy may be unable to respond to shocks -** a fixed exchange rate means that there may be no mechanism for the government to respond rapidly to balance of payments crises.
- **Problems with reserves -** fixed exchange rate systems require large foreign exchange reserves and there can be international liquidity problems as a result.
- **Speculation -** if foreign exchange markets believe that there may be a revaluation or devaluation, then there may be a run of speculation. Fighting this may cost the government significantly in terms of its foreign exchange reserves.
- **Deflation -** if countries with balance of payments deficits deflate their economies to try to correct the deficits, this will reduce the surpluses of other countries as well as deflating their own economies to restore their surpluses. This may give the system a deflationary bias.

- **Policy conflicts -** the fixed exchange rate may not be compatible with other economic targets for growth, inflation and unemployment and this may cause conflicts of unemployment and this may cause conflicts of policies. This is especially true if the exchange rate is fixed at a level that is either too high or too low.

Advantages and Disadvantages of Floating Exchange Rates

1.Advantages of floating exchange rates

- Protection from external shocks - if the exchange rate is free to float, then it can change in response to external shocks like oil price rises. This should reduce the negative impact of any external shocks.
- Lack of policy constraints - the governments are free with a floating exchange rate system to pursue the policies they feel are appropriate for the domestic economy without worrying about them conflicting with their external policy.
- Correction of balance of payments deficits - a floating exchange rate can depreciate to compensate for a balance of payments deficit. This will help restore the competitiveness of exports.

2.Disadvantages of floating exchange rates

- Instability - floating exchange rates can be prone to large fluctuations in value and this can cause uncertainty for firms. Investment and trade may be adversely affected.
- No constraints on domestic policy - governments may be free to pursue inappropriate domestic policies (e.g. excessively expansionary policies) as the exchange rate will not act as a constraint.
- Speculation - the existence of speculation can lead to exchange rate changes that are unrelated to the underlying pattern of trade. This will also cause instability and uncertainty for firms and consumers.

Exchange Rate Structure in Ethiopia

The legal currency of Ethiopia (Birr) was first introduced in 1945 with an official exchange rate of Birr 2.48 per US dollar with a value of 0.36 grams of fine gold. The linkage with fine gold was in accordance with the monetary system established by the Bretton Woods Agreement of 1944 which established the exchange rate between the national currency and other currencies with the same arrangement. This fixed exchange rate was under operation for almost two decades. On 1 January 1964 the Ethiopian Birr was slightly devalued to 2.50 birr per US dollar. Following the collapse of the Bretton Woods System in 1971, the Ethiopian dollar was revalued to 2.30 birr per US dollar on 21 December 1971. The subsequent 10% devaluation of the US dollar temporarily brought about undervaluation of the Birr. It was again revalued to 2.07 Ethiopian Birr per US dollar in February 1973. From then on, the Ethiopian currency was pegged to the US dollar at the rate of 2.07 Birr per dollar until massive devaluation in October 1992.

Following the overthrown of the Derg Regime, EPRDF introduced the auction-based exchange rate determination scheme and the interbank money market. Additionally, the principle of gradualism in liberalization of exchange rate market is at the heart of this policy development. The exchange rate reform was started by devaluing the currency, which had been fixed for about two decades to 2.07 Birr per US dollar, by 140% to 5 birr per US dollar in October 1992. In 1993 the NBE introduced the auction-based exchange rate system. It was conducted on a fortnightly basis and took the form of discriminatory price which clears the market for the coming two weeks. The supply of funds for this market was obtained from export earnings, loans and grants. The auction-based exchange rate system was initially worked side by side with the official exchange rate. Before the unification of official exchange rate and auction-based exchange rate systems in August 1995, the official exchange rate was used for imports of fertilizer, petroleum, pharmaceutical products, Ethiopia's contribution to international organizations and external debt service payments. In July 1996 the NBE introduced a weekly auction replacing the previous auction system. The NBE also replaced the retail auction system by a wholesale auction system where banks are considered as wholesale bidders.

In 1998, the NBE issued directives aimed at establishing interbank foreign exchange and money markets. The interbank foreign exchange market is a wholesale market, where the amount traded is large and the spread between buying and selling rates is narrower than the normal situation for commercial transactions. It is an exclusive market for banks to trade foreign exchange with each other. The establishment of this market is primarily motivated by the recognition that the foreign exchange supply by NBE through the auction system is not sufficient to satisfy the demand of banks. Currently, the exchange rate is determined through an interbank foreign exchange market on a daily basis, a clear indication of the government's policy of gradualism toward liberalizing the exchange rate market.

Furthermore, NBE continued to devalue the Birr in August 2010 by 20% from 13.63 to 16.35 per US dollar as a mechanism to boost foreign exchange earnings. The devaluation of the Birr in 2010 was followed by the rise in inflation of about 33% in 2011 (after one year of currency devaluation). This type of relationship between exchange rate change and change in inflation tells us that inflation in Ethiopia responds positively to devaluation. The Birr continued to depreciate but at a very slow rate and it reached 18.19/US$ October 2012/13. This gradual depreciation is in line with the goal to enhance the competitiveness of Ethiopian exports and attract foreign direct investment. The average exchange rate of Birr against US dollar in the official market showed an annual depreciation of 5.4% since 2011/12. In January 2014, the exchange rate reached 19.107 Birr/US$, a 4.85% depreciation since January 2013.

The fluctuation in commodity prices in international markets and the strength of US dollar relative to other currencies, led to the decline of Ethiopia's export commodities, especially coffee, oilseed, gold, and leather. The World Bank suggested that the Ethiopian government should devalue its currency by at least 10%, pointing out that in real terms it may lead to a 5% increase in export earnings and 2% increase in growth. As a result, on October 10, 2017, the NBE devalued the Birr by 15% against international currencies (National Bank of Ethiopia, 2017). According to the government, the devaluation was undertaken to encourage exports and overcome the foreign exchange shortage as well as to suppress the black market. Since 10 October 2017, inflation seems to have picked up. Annual inflation as measured by the CPI growth rate increased from 2.8% in 2010 to 20.2% 2020. In general, at every time of devaluation, the rise in inflation is inevitable. (National Bank of Ethiopia, 2020/21).

Unit Summary

Macroeconomic policies can play a useful role in achieving maximum feasible output, a high rate of economic growth, full employment, price stability, equality in the distribution of income and wealth, and a healthy balance of payments. To achieve these objectives, different types of macroeconomic policies, such as, fiscal, monetary, income, and foreign exchange policies

Review Questions

Part I: True or False

Read the following sentences and write “True” for correct sentences and “False” for incorrect ones.

1. To correct excess demand, the central bank buys government securities.

2. Expansionary fiscal policies are adopted to reduce aggregate demand.

3. Government should reduce tax rates to increase aggregate demand.

4. Control of wages becomes necessary when there is a situation of inflation.

5. In situations of deficient demand, government expenditure should be reduced.

Part II: Multiple Choices

For the following question choose the best answer from the given alternatives.

1. A reduction in bank rate is:

A. a contractionary fiscal policy. C. an expansionary monetary policy.

B. an expansionary fiscal policy. D. a contractionary monetary policy.

2. To control the situation of excess demand the central bank:

A. reduces discount rate. C. decreases RRR.

B. sells government securities. D. None of the above.

3. To control the situation of deficient demand:

A. government expenditure is reduced. C. the bank rate is reduced.

B. tax rates are increased. D. All of the above.

4. Fiscal policy refers to:

A. government spending and taxation decisions. C. decisions to alter market interest rates.

B. control of the money supply. D. control of the producer price index.

5. An appreciation of the Ethiopian Birr relative to the US dollar would result in all of the following except:

A. increase net exports. C. a reduction in the price of imported resources.

B. increase AD. D. an increase in the price of exported resources.

Part III: Short Answers

For the following questions write short answers.

1. What is the difference between fiscal policy and monetary policy?

2. What is the meaning of fiscal policy? Explain how the following two things affect demand in an economy: a) Change in government expenditure. b) Change in tax rates.

3. What is the difference between excess and deficient aggregate demand?

4. Explain the various monetary policy instruments by which excess demand in an economy can be controlled.

5. Why do we need a foreign exchange market?

Answers

Part I: True or False

1. False 2. False 3. False 4. True 5. False

Part II. Multiple Choices

1. C 2. B 3. C 4. A 5. C

Part III. Short Answer

1.

1. Fiscal Policy
   1. It is related to public revenue, public expenditure and public debt. It is related with the supply, availability and cost of money.

2. The main instruments of fiscal policy are taxes, public expenditure, deficit financing and public borrowing Its main instruments are the bank rate, open market operations, and cash reserve ratio

3. It has a direct impact on all sectors of the economy. It has a direct impact on selective business activities in the economy.

2. Monetary Policy
    1. It is related with the supply, availability and cost of money.
    2. Its main instruments are the bank rate, open market operations, and cash reserve ratio
    3. It has a direct impact on selective business activities in the economy.

2. Fiscal policy is the expenditure and revenue (tax) policy of the government to achieve the demand objective.

a) Change in government expenditure: - during a period of deficiency in demand, the government should make large investments in public works, like construction of roads, bridges, buildings, railway lines, canals etc. and provide education and medical facilities. In a situation of excess demand government should curtail its expenditure on public works such as roads, buildings, rural electrification, irrigation work, etc. There by reducing the money income of the people and their demand for goods and services.

b) Taxes on personal incomes and taxes on expenditures on building etc, should be reduced, if possible tax on lower incomes groups be abolished. During inflation, government should raise rates of all taxes especially on rich people, but care should be taken that the revenue should be disinflationary.

3.

1. Excess Demand

1.1. It is a situation in which planned aggregate expenditure is greater than the output at full employment level

1.2. It generates inflation in the economy.

1.3. It indicates over full employment equilibrium.

1.4. In this situation, output and employment do not increase with increase in aggregate demand.

2. Deficient Demand

2.1. It is a situation when planned aggregate expenditure falls short of output corresponding to full employment level

2.2. It generates deflation in the economy.

2.3. It indicates under employment or less than full employment equilibrium.

2.4. In this situation, both output and employment increase along with increase in aggregate demand.

4. Monetary measures by which excess demand in an economy can be checked includes: - changing the bank rate (discount rate), buying and selling of government of securities and hanging the required reserve ratio.

5. Foreign currency rates fluctuate based on the market forces of demand and supply. This means the rates can change at any given moment. We need a foreign exchange market to determine a value for each foreign currency and this makes it easier to exchange different currencies for one another.

The End