ECONOMICS

(Macro-Economics)

Chapter 4 Determination Of Income And Employment

Determination Of Income And Employment

Aggregate Demand and Its Components

Aggregate demand is an economic measurement of the total amount of demand for all finished goods and services at a specific price produced in an economy.

It is the number of goods and services people buy. It's usually reported for a specific time period, such as month, quarter, or year.

Demand changes as the price increases. That's called the law of demand. It says people will want more goods and services when prices fall. They will buy less as prices increase.

The aggregate demand formula is AD = C + I + G + (X - M).

Aggregate demand has four components: consumption, investment, government spending, and net exports.

Consumption of goods and services can change for a number of reasons, including movements in income, taxes, expectations about future income, and changes in wealth levels.

Investment can change based on expected profitability, which in turn is shaped by expectations about future economic growth, the creation of new technologies, the price of key inputs, and tax incentives for investment.

Investment also changes when interest rates rise or fall.

Government spending and taxes are determined by political considerations.

Exports and imports of goods change according to relative growth rates and prices between two economies.

An inflationary gap exists when equilibrium is at a level of output above potential GDP.

Propensity to consume and propensity to save (average and marginal).

the balance in their account.

Marginal Propensity To Consume (MPC)

The marginal propensity to consume (MPC) is defined as the proportion of an aggregate raise in pay that a consumer spends on the consumption of goods and services, instead of saving it.

Marginal propensity to consume is a component of Keynesian macroeconomic theory which is calculated as the change in consumption divided by the change in income.

MPC varies by income level. It is typically lower at higher incomes.

The marginal propensity to consume is equal to Change in income/ change of consumption If consumption increases by 80 cents for each additional Rupees of income, then MPC is equal to 0.8 / 1 = 0.8.

Suppose you receive a Rupees 50000 bonus on Diwali on top of your normal annual

earnings. You suddenly have 50000 more in income.

If you decide to spend 40000 of this marginal increase in income on a new suit and save the remaining 10000, your marginal propensity to consume will be 0.8 (40000 divided by 50000).

On the other hand your saving of 0.2 (10000/50000) will be your MPS (Marginal Propensity to Save).

If you decide to save the entire 50000, your marginal propensity to consume will be 0 (0 divided by 50000), and your marginal propensity to save will be 1 (50000 divided by 50000).

- **Marginal Propensity to Save (MPS):**

  The marginal propensity to save (MPS) refers to the proportion of an aggregate raise in income that a consumer saves rather than spends on the consumption of goods and services.

  This save is the proportion of each added dollar of income that is saved rather than spent.

  MPS is a component of Keynesian macroeconomic theory which is calculated as the change in savings divided by the change in income, or as the complement of the marginal propensity to consume (MPC).

  This savings is the proportion of an increase in income that gets saved instead of spent on consumption.

  MPS varies by income level. It is higher at higher incomes.

- **Short Run Equilibrium Output:**

  Short run is a period of time during which the level of output is determined by the level of employment in the economy.

  In short run the firm can try varying its output by bringing about a change in the variable factors of production, which can lead to maximum profit or losses.

  In this short period, the prices and wages are slow to adjust to equilibrium level thereby creating sustained periods of shortage or surplus and thus prevents the economy from operating, as per its full potential

  An economy is in short run equilibrium when the level of aggregate output demanded is equal to the level of aggregate output supplied.

  Equilibrium Output refers to the level of output where the Aggregate Demand is equal to the Aggregate Supply (AD = AS) in an economy.

  It signifies that whatever the producers produce during the year is exactly equal to what the buyers intend to buy during the year.

  Therefore, AD = C + I (for a two-sector economy) and AS = C + S

  (AD = Aggregate Demand, AS = Aggregate Supply, C = Consumption, I = Investment, S = Saving)

Investment multiplier and its mechanism

Investment Multiplier refers to increase in national income as a multiple of a given increase in Investment.

It refers to the concept that any increase in public or private investment spending has a more than proportionate positive impact on aggregate income and the general economy.

It is multiplying investment spending beyond those immediately measurable. The larger an investment's multiplier, the more efficient it is in creating and distributing wealth throughout the economy.

Investment Multiplier is rooted in the economic theories of John Maynard Keynes.

The range of the investment multiplier depends on two factors: the marginal propensity to consume (MPC) and the marginal propensity to save (MPS).

The investment multiplier tries to determine the economic impact of public or private investment. For instance, extra government spending on roads can increase the income of construction workers and materials suppliers.

These workers may spend the extra income in the retail, consumer goods, or service industries, boosting the income of the workers in those sectors which boost the economy.

Suppose increase in investment is Rs 1000 and MPC = 0.8.

The increase in national income is in the following sequence:

- Increase in investment on goods raises income of those who supply investment goods by Rs 1000. This is the first round increase
- Since MPC = 0.8, the income earners spend Rs 800 on consumption, which raises the income of the suppliers of consumption goods by Rs 800. This is a second round increase.
- In the similar way, the third round increase is Rs 640 = 800 × 0.8. In this way, national income goes on increasing round after round.
- The total increase in income is Rs 5000.

Full employment and involuntary unemployment

Full Employment:

Full employment refers to the people, who are willing and able to work at the existing wage rate, get work without any difficulty.

Generally, the term 'full employment' means that there is no unemployment that means everyone gets work. And the demand for labor is equal to its supply.

However, in macroeconomics, there can be some types of unemployment even during full employment.

Under full employment, there can be two types of unemployment:

- **Frictional Unemployment:**

It is temporary unemployment, which exists during the period wherein workers leave one job and join some other.

It happens due to labor market imperfections such as lack of market information about availability of jobs and lack of perfect mobility on the part of workers.

Introduction of new machines, nationalization in the production process or breakdown of plants may also lead to frictional unemployment.

❖ **Structural Unemployment:**

In this type of unemployment, people remain unemployed due to a mismatch between unemployed persons and the demand for specific types of workers. It is associated with structural changes in the economy.

For example, due to computerization, workers who do not have enough knowledge of computers will be unemployed until they do some computer courses or training.

These two types of unemployment are referred as 'Natural rate of Unemployment'. It must be noted that the concept of Full Employment is explained only in the context of 'labor force'.

Labor force refers to that part of the population which is physically and mentally able and willing to work. Children and old persons will not be considered as they are not supposed to be employed even during full employment.

❖ **Involuntary Unemployment:**

Involuntary unemployment refers to all those people, who are willing and able to work at the existing wage rate, do not get work.

Under involuntary unemployment, people are unemployed against their wishes or under compulsion. It must be noted that only involuntary unemployment is considered while estimating the total unemployment in an economy.

Problems Of Excess Demand And Deficient Demand

Problem of Excess Demand:

Excess demand is the excess of aggregate demand over and above its level required to maintain full employment equilibrium in the economy.

When in an economy, aggregate demand exceeds aggregate supply, the demand is said to be an excess demand.

Suppose by employing all its available resources a company can produce 10,000 quintal of rice. But aggregate demand of rice is 12,000 quintal, this extra demand of 2000 will be called an excess demand,

Causes of Excess Demand:

The main reasons for excess demand are apparently the increase in the following components of aggregate demand:

❖ **Reason of Excess Demand:**

- Increase in household consumption demand due to rise in propensity to consume.
- Increase in private investment demand because of rise in credit facilities.
- Increase in public (government) expenditure. Increase in export demand.
- Increase in money supply or increase in disposable income.

❖ **Effects of excess demand on price, output, employment:**

- **Increase in General Price Level:** Excess demand rise general price level, it arises when aggregate demand is more than aggregate supply at a full employment level.
- **Output:** Excess demand has no effect on the level of output, because the economy is at full employment level and there is no idle capacity in the economy.
- **Employment:** There will be no change in the level of employment also.

The economy is already operating at full employment equilibrium, and hence, there is no unemployment.

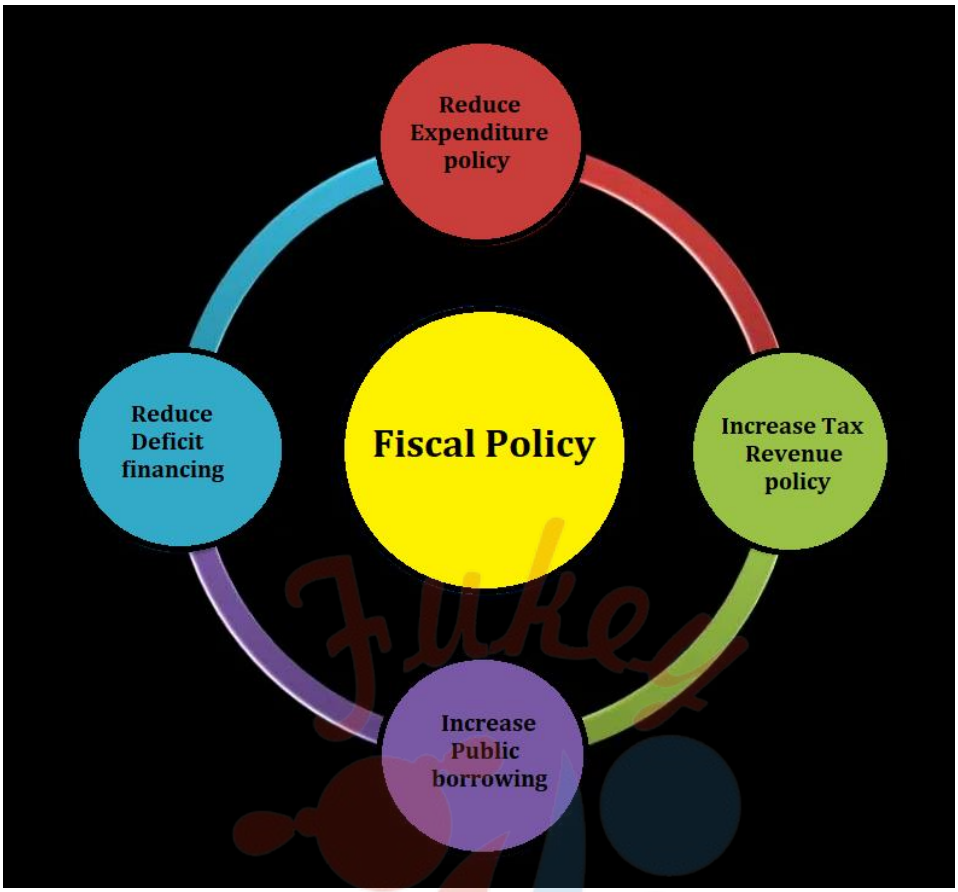
❖ **Measures to control the excess demand:**

We can control the excess demand with the help of the following policy:

Fiscal Policy

Monetary Policy

- **Fiscal Policy:** Fiscal policy is the expenditure and taxation policy of the government to accomplish the desired objectives. The objective of fiscal policy is to reduce aggregate demand.



❖ **The main tools of fiscal policy are:**

- **Reduce Expenditure policy:** In case of excess demand, government should reduce its expenditure on public works such as roads, buildings, rural electrification, irrigation works, thereby reducing the money income of the people and their demand for goods and services. In this way, government can reduce the budget deficit which shows excess of expenditure over revenue.
- **Increase Tax Revenue policy:** Revenue policy is expressed in terms of taxes. During inflation, government should raise rates of all taxes especially on rich people because taxation withdraws purchasing power from the tax-payers and to that extent reduces effective demand.
- **Increase Public borrowing:** Government should resort to large scale public borrowing to mop up excess money with the public.
- **Reduce Deficit financing:** Deficit financing (printing of currency/ notes) should be reduce drastically because it leads to increase in demand. To keep deficit financing low, government may raise small savings such as PPF, NSC, etc. by offering incentives.

Monetary Policy:

It is the policy of the central bank of a country to control money supply and credit in the economy.

❖ **Measures of monetary policy:**

- Quantitative (which influence the total volume of credit)

- Qualitative (which regulates flow of credit for specific uses) as explained below:

❖ **Quantitative Measures:**

- **Bank rate or Repo rate (Increase bank rate):** Bank rate (Repo rate) is the rate of interest charged by central bank on loans given to all commercial banks.

  Increase in bank rate forces commercial banks to increase their own lending rate of interest which makes loan costlier. As a result, the demand for credits falls.

  High rate of interest slows down the demand for goods and services and encourage people to increase their savings.

- **Open Market Operation (Sell securities):** It refers to buying and selling of government securities and bonds in the open market by the central bank to influence the cash reserves with commercial banks. This brings flow of money. Thereby restricting their lending capacity.

- **Cash-Reserve Ratio (Raise CRR):** When there is an inflationary situation, the central bank raises the rate of minimum cash-reserve ratio thereby. As a result banks keep more cash reserve with RBI which in turn curtails the lending capacity of commercial banks.

- **Statutory Liquidity Ratio (Raise SLR):** In addition to CRR, there is another measure called SLR. When RBI wants to contract credit by banks, it increases SLR and thereby reduces credit availability.

Qualitative Measures:

❖ **Moral Suasion (Restrict credit):** This means written or oral advice given by the central bank to commercial banks to restrict or expand credit. During inflation, the central bank persuades its member banks not to advance credit for speculation or prohibit banks from entering into certain transactions. This advice is generally followed by member banks.

❖ **Increase Margin Requirements:** Margin requirement refers to the amount of security that banks demand from borrower of loan. This discourages borrowing, it makes traders get less credit against their securities. In case of deficient demand, margin requirements are lowered to encourage borrowing.

❖ **Miscellaneous:** There are certain other measures which can be: import promotion, wage freeze, control and blocking of liquid assets, compulsory savings scheme for households, increase in production by utilizing idle capacities, etc.

Deficiency Of Demand

Deficient demand (deflationary gap) is an excess of available aggregate output over anticipated aggregate expenditure, at full employment level.

The situation of deficient demand builds deflationary pressures leading to a fall in the general price level in the economy. When AD is less than AS (at full employment condition), the producers are forced to reduce their output as prices and profits are hit adversely.

This may result in unemployment of resources and reduced income in the economy which further reduces the demand for goods and services,

- **Causes of Deficient Demand:**
  - **Fall in Consumption:** Any decrease in the consumption demand of the households may lead to a fall in AD
  - **Fall in Investments:** Any decrease in the investment expenditure incurred by the households and firms may lead to a fall in AD and result in deficient demand-like situation.
  - **Fall in Government Expenditure:** Government decreases its consumption or investment expenditure, it may result in a fall in money supply in the economy.
  - **Decrease in Net Exports:** When the export of goods and services from an economy is less and import is more, this may result in lesser money at the disposal of the people in the economy leading to deficient demand.
  - **Budget Surplus:** If an economy is facing budgetary surplus, it may result in deflationary gap.
  - **Higher Taxes:** When the tax structure in the economy is stringent and doesn't leave money at the disposal of the general public in the economy, this could prove to be deflationary in nature.
- **Measures to Correct Deficient Demand:**

The problem of deficient demand in an economy can be tackled either by increasing budget deficits (using the fiscal policy measures) or by encouraging the availability of credit (using the monetary policy measures)

- **Fiscal Policy Measures:**

These are the steps taken by the government which affect either revenue or expenditure of the government.

Two fiscal policy measures are as follows:

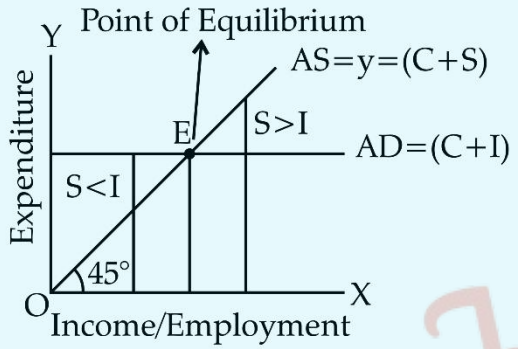
- **Taxation Policy:** The government can use taxation policy (both direct and indirect taxes) to regulate the money in the pockets of the public.
- **Government Expenditure Policy:** Any increase in the public expenditure by government will directly affect the demand of goods and services and as a result AD may be equal to AS.
- **Monetary Policy Measures:** Central bank concentrating on the money supply and availability of credit in the economy using various qualitative and quantitative tools of controlling funds in the hands of the general public.

- **Quantitative Methods:**
  - **Bank Rate/ Discount Policy:** A lower Bank Rate aims to reduce the cost of funds that are made available by the central bank to these commercial banks which, in turn, reduce their own lending rates to the borrowers.
  - **Open Market Operations:** If there is lower money supply in the market, the central bank may start purchasing the treasury bills and other securities in the open market with an aim of creating a gap in the funds in the market from banks and other financial institutions.
- **Legal Reserve Ratio:**

  There are two major reserve ratios in this regard:
  - **Cash Reserve Ratio (CRR):** If the central bank feels that the credit availability in the economy is in deficiency, it may reduce the Cash Reserve Ratio, leaving more cash with the commercial banks to create lending.
  - **Statutory Liquidity Ratio (SLR):** In order to push money, the central bank will reduce SLR, which will give more money to the commercial banks to lend and increase money supply to reduce deflation as per the requirements of the economy.
  - **Repo Rate/Reverse Repo Rate:** A fall in repo rate may promote borrowings due to cheaper fund availability. Reverse Repo Rate when falls it ensures liquidity in the market.
- **Qualitative Methods:**
  - **Margin Requirements:** Lower margin requirements promote credit-creating power of the banks, as a result the money supply in the economy enhanced.
  - **Regulation of Consumer Credit:** During adverse conditions, the central bank may ask the commercial banks to grant more loans and advances to the consumers.

Class : 12th Economics (Macroeconomics)
Chapter-4 : Income Determination

Short Run Equilibrium



Income Determination

Propensity to Consume

Marginal Propensity to Consume
Ratio of change in consumption to change in income. Symbolically,

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

Average Propensity to Consume
Ratio of total consumption to total income. Symbolically, APC = C/Y

Full Employment
The employment is a situation in which all available resources are being used in most economic ways

Involuntary Unemployment
Involuntary unemployment occurs when a person is willing to work at the prevailing wage but is unemployed.

Propensity to save

Average Propensity to save
Ratio of total savings to total income. Symbolically, APS = S/Y

Marginal Propensity to Save
Ratio of change in savings to change in income. Symbolically
MPS = ΔS/ΔY

Problematic Situations their & Measures

Problems
- Rise in prices,
- Rise in inflation,
- Deficit currency value.

Excess Demand

Meaning
It refers to a situation in which aggregate demand is an excess of aggregate supply corresponding to full employment level.

Deficit Demand

Meaning
It refers to a situation where aggregate demand is deficit of aggregate supply.

Problems
- Involuntary unemployment,
- Price falls,
- Lock out of industries.

Measures
- Change in government saving,
- Change in availability of credit,
- Change in quantitative investments like bank rate, SLR,
- Change in government policies.

Investment Multiplier
- Ratio of change in income to change in investment.
- $K = \frac{\Delta Y}{\Delta I}$

Aggregate Demand

Components
- Consumption → (c)
- Investment → (I)
- Government spending → (G)
- Net exports → (X – M)

So A.D. = C + I + G + (X – M)

Meaning
Total planned expenditure on goods and services in a n economy during a period of time.

Important Questions

Multiple Choice questions-

Q1. Supply creates its own Demand. Who gave this law?

(a) J.B.Say

(b) J.S.Mill

(c) Keynes

(d) Ricardo

Q2. If MPC is equal to 1, the value of the multiplier is

(a) 0

(b) 1

(c) Between 0 and 1

(d) Infinity

Q3. If the marginal propensity to consume is greater than the marginal propensity to save, the value of the multiplier will be:

(a) greater than 2

(b) less than 2

(c) two equal to 2

(d) equal to 5

Q4. If MPC is zero, the value of the multiplier is

(a) 0

(b) 1

(c) between 0 and 1

(d) infinity

Q5. Average Propensity to Consume can never be ……

(a) positive

(b) zero

(c) more than one

(d) less than one

Q6. According to classical economists, there always exists an equilibrium in the economy.

(a) Full employment

(b) Underemployment

(c) Over full employment

(d) None of these

Q7. According to classical economists, real wage rate is …… to the Marginal Productivity of Labour.

(a) Equal

(b) More

(c) Less

(d) None of these

Q8. On the basis of government law, the compulsory payment made by the public is known as ……..

(a) Expenditure

(b) Investment

(c) Tax

(d) Subsidy

Q9. According to classical economists, there always exists …… equilibrium in the economy.

(a) Full employment

(b) Underemployment

(c) Over full employment

(d) None of these

Q10. What will be APC when APS = 0?

(a) One

(b) Zero

(c) Two

(d) Infinite

Q11. If MPC = 1, the value of the multiplier is:

(a) 0

(b) 1

(c) Between 0 and 1

(d) Infinity

Q12. Which is the measure of correcting excess demand?

(a) Deficit financing

(b) Reduction in taxes

(c) Increase in public expenditure

(d) Increase in public debt

Q13. If the marginal propensity to consume is greater than the marginal propensity to save, the value of the multiplier will be

(a) greater than 2

(b) less than 2

(c) equal to 2

(d) equal to 5

Q14. Supply creates its own Demand. Who gave this law?

(a) J.B.Say

(b) J.S.Mill

(c) Keynes

(d) Ricardo

Q15. Aggregate demand can be increased by:

(a) increasing bank rate

(b) selling govt, securities by RBI

(c) increasing cash reserve ratio

(d) none of these

Very Short Questions-

1. What is the relation between APC and APS?

2. State the important factor influencing the propensity to consume in an economy.

3. Give the formula of investment multiplier in terms of MPC.

4. Write down the equation of saving function.

5. What is equilibrium income?

Short Questions -

1. Explain the components of S = -a + (1-b)Y

2. Can the average propensity to consume be greater than one? Give the reason for your answer.

3. Differentiate between ex ante and ex post investment.

4. Explain the working of a multiplier with an example.

5. Can the value of APS be negative? If yes, then when?

Long Questions-

1. Define and represent the inflationary gap on a diagram. Explain the role of the varying reserves requirement in removing the gap.

2. In an economy C = 300 + 0.5Y and I = Rs. 600 (where C is consumption, Y is income or

investment). Calculate the following:

a. Equilibrium level of income

b. Consumption expenditure at equilibrium level of income.

3. If in an economy investment increases by Rs. 1000 lakhs to Rs. 1200 lakhs and as a result, total income raises by 800 lakhs, calculate MPS.

4. Explain the role of the following in correcting deficient demand in an economy.

a. Open market operations

b. Bank rate

5. Draw a hypothetical propensity to consume curve and from it draw a propensity to save curve.

Case Study Based Question-

1. Read the following hypothetical text and answer the given questions: -
   a. Both Assertion and Reason are true and Reason (R) is the correct explanation of Assertion (A)
   b. Both Assertion and Reason are true and Reason (R) is not the correct explanation of Assertion (A)
   c. Assertion (A) is True but Reason (R) is False
   d. Assertion (A) is False but Reason (R) is True

   Assertion: At the Break-Even point, consumption is equal to National Income.

   Reason: APC falls continuously with an increase in income as the proportion of income spent on consumption keeps on decreasing.

2. Read the following hypothetical text and answer the given questions: -
   a. Both Assertion and Reason are true and Reason (R) is the correct explanation of Assertion (A)
   b. Both Assertion and Reason are true and Reason (R) is not the correct explanation of Assertion (A)
   c. Assertion (A) is True but Reason (R) is False
   d. Assertion (A) is False but Reason (R) is True

   Assertion: There is a positive relationship between saving and income.

   Reason: Savings are positive even at zero level of National Income.

Assertion Reason Type Question-

1. **In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.**

2. **In these questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.**

MCQ Answers-

1. (a) J.B.Say
2. (d) Infinity
3. (a) greater than 2
4. (b) 1
5. (b) zero
6. (a) Full employment
7. (a) Equal
8. (c) Tax
9. (a) Full employment
10. (a) One
11. (d) Infinity
12. (d) Increase in public debt
13. (a) greater than 2
14. (a) J.B.Say
15. (d) none of these

Very Short Answers-

Ans 1: The relation between Average Propensity to Consume (APC) and Average Propensity to Save (APS) is always equal to 1 (unity), that is,

APC + APS = 1

This is because the money income can either be spent on consumption or saved.

Ans 2: It is always the level of income (Y) that impacts an economy's propensity to consume (C).

Ans 3: The formula of investment multiplier in terms of MPC is shown below.

$$\Rightarrow K = \frac{1}{1 - MPC}$$

Ans 4: The equation of saving function is given below.

S = −a + (1 − b) y

Here,

1-b = MPS

Y= Income

-a = Savings, when Y is 0

Ans 5: The amount of income at which aggregate demand equals aggregate supply is referred to as the equilibrium income. That is when AD=AS, there is equilibrium income.

Short Answers -

Ans 1: The equation of saving function is

S = -a + (1-b)Y

In this equation, -a indicates the intercept term and the amount of savings made while there is no income. Savings are negative at zero since income consumption 'a' is positive. Negative saving is also known as dissaving, which means that at the 0 level, there is dissaving of the amount represented by -a

The slope of the saving function is measured by the coefficient 1-b. The slope of the saving function indicates the amount of money saved for every unit increase in income. This is referred to as the Marginal Propensity to Save. Since b,' or Marginal Propensity to Consume, is smaller than one, 1-b i.e. MPS, is positive. And Y refers to income here.

Ans 2: When consumption surpasses income, the average propensity to consume can be greater than one. Also, APS is negative at this level, so APC will be more than one.

For example, if income is Rs. 1000, consumption is Rs. 1200, then,

$$\begin{aligned} \text{APC} &= \frac{1200}{1000} \\ &= 1.20 \end{aligned}$$

Ans 3: The difference between ex ante and ex post investment.

Basis	Ex- ante Investment	Ex- post Investment
Meaning	It refers to what is planned or intended to happen during a specific time period.	It refers to the actual level of investment over a specific time period.
Type of situation	It is a fictitious (intended) situation in which a company assumes the level of investment on its own.	It is true or unique that represents the existing investment of a specific time.
Based on	It is planned based on future expectations.	It is the actual outcome of variables.

Ans 4: The multiplier shows us what the eventual change in income will be as a result of a change in investment. Changes in investment lead to changes in income. It is represented symbolically by:

$$\Delta I \rightarrow \Delta Y \rightarrow \Delta C \rightarrow \Delta Y$$

The operation of a multiplier can be illustrated using the table below, which is based on consumption, that is, $\Delta K = 1000$ and $MPC = \frac{4}{5}$.

The process of income generation is shown below.

Rounds	ΔI	ΔY	ΔC
1	1000	1000	$\frac{4}{5} \times 1000 = 800$
2	-	800	$\frac{4}{5} \times 800 = 640$
3	-	640	$\frac{4}{5} \times 640 = 512$
4	-	512	$\frac{4}{5} \times 512 = 409.6$
$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$	$\downarrow \infty$
	Total	5000	

According to the above table, as MPC = $\frac{4}{5}$, the initial increase in investment of Rs 1000 results in a total increase in income of Rs 5000. From the whole increase in income, Rs. 4000 will be spent and Rs. 5000 will be saved.

The derivation of the sum of total increase in income is shown below.

$$= 1000 + \frac{4}{5} \times 1000\left(\frac{4}{5}\right)^2 \times 1000\left(\frac{4}{5}\right)^3 \times 1000 + \ldots\ldots\ldots\infty$$

$$= 1000\left[1 + \frac{4}{5} + \left(\frac{4}{5}\right)^2 + \left(\frac{4}{5}\right)^3 + \ldots\ldots\infty\right]$$

$$= 1000[\frac{1}{1} - \frac{4}{5}]$$

$$= 1000 \times \frac{5}{1}$$

$$= \text{Rs. } 5000 \text{ crores.}$$

Ans 5: Yes, when the value of spending/ consumption exceeds the value of income, the average propensity to save might be negative. Though APS can never be greater than one, as a person cannot save more than his income.

For example: Assume that the income is Rs. 1000 and its consumption expenditure is Rs.

1200.

Y= C-S

S= C-Y

S= 1000-1200

S= -200

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

$$\text{APS} = \frac{-200}{1000}$$

APS = -0.2

Long Answers-

Ans 1: Meaning: Inflationary Gap

- An inflationary gap is a macroeconomic concept that defines the difference between the current level of real GDP and the expected GDP that would be experienced if an economy is at full employment, also known as the potential GDP.
- An inflationary gap is always associated with a business-cycle expansion and occurs when an economy's equilibrium level of aggregate output exceeds the output that could be produced at full employment.
- It also depicts the excess of aggregate demand over aggregate supply even when there is full utilization of the factors.

Formula

AD= C + I + G + (X-M)

That is, Consumption spending (C), investment expenditure (I), government expenditure (G), and the trade balance, or the value of exports minus the value of imports (X – M), comprise aggregate demand. Thus, the inflationary gap is the product of excess demand.

Diagram

(Image will be Uploaded Soon)

Explanation:

In the diagram:

- AD curve represents the Aggregate demand at full employment.
- AD' curve represents the Aggregate demand beyond the full employment.
- Point A is the equilibrium, where AD=AS (the 45° line is the AS or Y curve).
- Vertical area AB depicts inflationary gap, as here at point E, the aggregate demand BY1 is greater than Aggregate Supply AY1.
- OY1 is the full employment level of output.
- As the output could not be increased beyond the full employment level, prices will

rise, and there will be a situation of inflation in the economy.

The following things can be useful in order to remove the gaps given below.

- Cash Reserve Ratio: The Cash Reserve Ratio (CRR) is the specified minimum fraction of total customer deposits that commercial banks must retain as reserves in cash or as deposits with the central bank.

To curb inflationary gap, RBI decides to raise the Cash Reserve Ratio, due to which the quantity of money accessible to banks decreases, and the commercial bank's capacity to provide credit also falls. Hence the aggregate demand falls down with a low credit creation and supply of money in the economy.

- Statutory Liquidity Ratio: Statutory liquidity ratio (SLR) is the term used by the Indian government to describe the reserve requirement that commercial banks in India are required to hold in the form of cash, gold reserves, and government-approved securities before extending credit to consumers.

To curb inflationary gap, RBI decides to raise the SLR, due to which the quantity of money accessible to banks decreases, and the commercial bank's capacity to provide credit also falls. Hence the aggregate demand falls down with a low credit creation and supply of money in the economy.

Ans 2: (a) Given:

C = 300 + 0.5Y

I = Rs. 600.

The equilibrium level of income is calculated as

$$Y = C + I$$

$$Y = 300 + 0.5Y + 600$$

$$Y = \frac{900}{0.5}$$

$$Y = 900 + 0.5Y$$

$$0.5Y = 900$$

$$Y = \frac{900}{0.5}$$

Y= Rs 1800

(b) The consumption expenditure at equilibrium level of income is calculated as

Y = C+I

1800 = C +600

1800-600 = C

1200 = C

Ans 3: In this case, MPS would be

$$\Delta I = 1200 - 1000$$

$$= 200$$

$$\Delta Y = 800$$

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

$$= \frac{800}{200}$$

$$= 4$$

$$\Delta K = \frac{1}{MPS}$$

$$4 = \frac{1}{MPS}$$

$$MPS = \frac{1}{4}$$

$$= 0.25$$

Therefore, the value of MPS is 0.25

Ans 4: (a) The sale and purchase of government and other sanctioned securities by the central bank to commercial banks and other financial institutions is referred to as open market operation. When the economy's cash balance needs to be increased, especially when demand is low, the central bank purchases a number of securities. This improves commercial banks' cash holdings, allowing them to make more loans and advances. As a result, aggregate demand rises.

(b) The bank rate is the interest rate at which the central bank loans to commercial banks. To control the situation of insufficient demand, the central bank reduces the bank rate. As a result of the central bank's drop in the bank rate, commercial banks lower the market rate of interest. This will result in cheaper borrowing costs from commercial banks for consumers and investors. This raises credit demand, resulting in additional liquidity in the hands of the people. Hence in this case the consumption and investment spending increases, and aggregate demand (AD) also rises.

Ans 5: The sum of consumption and saving is always equal to income because income is either consumed or saved. It implies that consumption and saving curves, which represent consumption and saving functions, are mutually exclusive. Thus, given the income, we can directly derive the saving function from the consumption function, as shown in Fig, which consists of Part A displaying the consumption function and Part B displaying the saving function.

(Image will be Uploaded Soon)

- In Part A of the accompanying Figure, the CC curve represents the consumption function for each level of income, whereas the 45° line OL represents income.

- Because the 45° line divides the graph into two equal parts, each point on this line is equidistant from the X and Y axes.
- The CC curve intersects the 45° line OL at point B, where BR is equal to OR, i.e., consumption equals income.
- As a result, point B is known as the breakeven point. There is no saving at point B, but to its left, the consumption function is above the 45° line, indicating negative saving (dissaving), and to its right, the consumption function is above the 45° line, indicating positive saving.
- Part B now deduces the saving function in the form of a saving curve. Remember that the amount of saving (or dissaving) in Part A is the vertical distance between the CC curve and the 45° line.
- We can derive a saving curve by plotting vertical distances from Part A in Part B of the Figure and connecting them.

For example,

- In Part A, at 0 (zero) level of income, vertical distance OC (representing dissaving) is plotted as OS1 in Part B.
- Similarly, at the OR level of income in Part A, the vertical distance between the CC curve and the 45° line at point B is nil (indicating zero saving) and is depicted as point Bj at the same level of income in Part B.
- LM vertical distance of part A is shown as L1M1 in Part B at the OS level of income. We get the saving curve by connecting the points St, Bt, and Lv. Thus, in the form of a saving curve, the saving function is diagrammatically derived from the consumption function. (Similarly, the consumption curve can be derived from the saving curve.)

Case Study Answer-

1. Answer:
    1. a) absolute poverty
    2. Poverty line
    3. Consumption
    4. per capita expenditure
2. Answer:
    1. d) All of the above
    2. Casualization
    3. Gini Coefficient

    d) all the above

Assertion Reason Answer-

1. b) Both Assertion and Reason are true and Reason (R) is not the correct explanation

of Assertion (A)

2. c) Assertion (A) is True but Reason (R) is False