

Numericals for Practice (with solution)

Topic - National Income

- (a) Consumption function — $C = 100 + 0.8Y_d$
Investment (I) = 50
Government Expenditure (G) = 200
Transfer payments (TR) = 62.5
 t (Proportional tax) = 0.25

- (i) find equilibrium level of income
(ii) find the value of multiplier

Solution:-

$$AD = C + I + G$$

$$= a + bY_d + I + G$$

$$= a + b(Y + TR - tY) + I + G$$

$$= 100 + 0.8(Y - 0.25Y + 62.5) + 50 + 200$$

$$= 350 + 0.8(0.75Y + 62.5)$$

$$= 350 + 0.6Y + 50$$

$$= 400 + 0.6Y$$

4. equilibrium,

$$AD = AS$$

$$\therefore AS = Y$$

$$\therefore Y = 400 + 0.6Y$$

$$0.4Y = 400$$

$$Y = 1000$$

hence equilibrium level of income = 1000.

$$(iii) Y = a + bY_d + I + G$$

$$Y = a + b(Y + TR - tY) + I + G$$

$$Y = a + bY + bTR - bY + I + G$$

$$Y = bY - bY + bTR + a + I + G$$

$$Y - bY + bY = bTR + a + I + G$$

$$Y(1 - b + b) = bTR + a + I + G$$

$$Y = \frac{bTR + a + I + G}{1 - b(1 - t)}$$

Continue:

$$Y = \frac{\bar{A}}{[1-b(1-t)]} \quad \left[\text{where } \bar{A} = a + I + G + bTR \right]$$

Differentiating Y w.r.t. $\bar{A}$

$$\frac{\partial Y}{\partial \bar{A}} = \frac{1}{1-b(1-t)}$$

$$\therefore D_a = \frac{1}{1-0.8(1-0.25)}$$

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

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

$$= 2.5$$

Here value of multiplier = 2.5.

Using the same data given in the above problem determine the following :-

- (a) What is the value of the budget surplus, (BS) when $I = 50$
- (b) what is BS when Investment increases to 100?
- (c) what accounts for the change in BS between b and a?

Solution :-

$$C = 100 + 0.8Y; \quad I = 50, \quad G = 200, \quad rR = 62.5 \\ \text{and } t_y = 0.25$$

$$\begin{aligned} \text{Budget surplus} &= t_y - rR - G \\ &= 0.25(1000) - 62.5 - 200 \\ &= 250 - 262.5 \\ &= -12.5 \end{aligned}$$

[1000 is eq'm level of income found in the previous question]

we have a budget deficit of 12.5.

(b) Now, $\Delta I = 50$
i.e. $I = 1 + \Delta I$
 $= 50 + 50$
 $= 100$

RESERVE BANK OF INDIA AND MONETARY REGULATION

The RBI was originally constituted as a private shareholders institution, with a share capital of Rs. 5 crores on the recommendations of Hilton Young Commission on April 1, 1935 under the RBI Act 1934.

The executive head of the RBI is called the governor.

FUNCTIONS OF RBI

Monetary functions:-

- (a) Bank of Issue
- (b) Banker to Government
- (c) Banker's Bank and lender of last resort
- (d) Custodian of foreign Exchange Reserves
- (e) Controller of Credit
- (f) Clearing house function

* Non Monetary functions

- (a) Collection and Publication of Data
- (b) Regulatory and Supervisory function
- (c) Developmental & promotional function

* INSTRUMENTS OF RBI

Quantitative instruments

- (a) Bank Rate
- (b) Repo rate
- (c) Reverse repo rate
- (d) Open market operations
- (e) Legal reserve ratio
 - (i) Cash reserve ratio
 - (ii) Statutory liquidity ratio

Qualitative instruments

- (a) Moral Suasion
- (b) Credit Rationing
- (c) Margin requirement
- (d) Consumer Credit regulation
- (e) Guidelines
- (f) Rationing of Credit
- (g) Direct action

Limitations of Monetary Policy in Developing countries.

- (a) Underdeveloped Capital market—
- (b) Unorganised sector
- (c) Banking habits of people
- (d) Lack of cooperation by banks.

Evaluation of Monetary Policy in India.

- (a) Predominance of Non-Banking Credit
- (b) Existence of Black Money
- (c) Underdeveloped money market
- (d) Higher proportion of currency

Objectives Of The Monetary Policy

- (i) Regulation of monetary growth
- (ii) Maintenance of price stability
- (iii) Ensuring adequate expansion of credit to assist economic growth
- (iv) Encourage flow of credit into priority and neglected sectors
- (v) Strengthening of the banking system of the country.
- (vi) Capital formation in the country
- (vii) Maintenance of monetary equilibrium
- (viii) Keep check on Balance of payments and to make it favourable
- (ix) Full employment.