**JAIPURIA INSTITUTE OF MANAGEMENT, INDORE**

**PGDM SECOND TRIMESTER (Batch 2019-21)**

**END TERM EXAMINATION, DECEMBER-2019**

**BUSINESS AND ECONOMIC ENVIRONMENT, ECO-201**

**SOLUTION SET**

1. **A. An economy is characterized by the following equations :**

**Consumption Function = 60 +0.75Yd;**

**Investment = 150 Crores; Tax = 30 Crores**

**Government Expenditure = 60 Crores**

**Exports = 210 Crores, Imports = 60 Crores**

1. **Solve for the equilibrium level of National income.**

**Solution:** We know that at equilibrium, Y = C + I + G + NX

Putting values from the question:

Y = 60 + 0.75Yd + 150 + 60 + (210 – 60)

Y = 420 + 0.75 (Y – T)

Y = 420 + 0.75 (Y – 30)

0.25 Y = 420 – 22.5

Y = 1590 Rs. Crores (Ans 1)

1. **Find out the value of budget surplus/deficit.**

**Solution:** Budget Deficit / Surplus = Revenue - Expenditure

**= 30 –** 60

**= -** 30 Crores (Rs.)

Therefore, there is budget deficit.

**(iii) Write down the savings function and calculate the value of aggregate savings from the function.**

**Solution:** Savings Function shall be:

S = Y – C

S = Y – ( 60 + 0.75Yd)

S = -60 + 0.25 Yd

S = -60 + 0.25 (Y – T)

S = -60 + 0.25 (Y – 30) (Ans)

Value of Savings:

S = -60 + 0.25 (1590 – 30)

S = -60 + 0.25 (1560)

S = Rs. 330 Crores (Ans)

**(iv) If the government wants to increase the income level by 10000 crores, then by how much should the investment expenditure be increased? What is the new value of Investment expenditure?**

**Solution:**

Investment Multiplier:

IM = 1/(1-b)

IM = 1/(1-.75)

IM = 4

Now we know that,

IM = ΔY / Δ I

* 4 = 10000 / Δ I
* Δ I = 10000/ 4
* Δ I = Rs. 2500 Crores.

Therefore, the investment expenditure should increase by 2500 Crore Rupees.

(v) Estimate the value of tax multiplier.

**Solution:**

Tax Multiplier, TM = -b/(1-b)

= -0.75 / (1 – 0.75)

= - 3 (Answer)

1. **Using ‘Aggregate Demand (AD) – Aggregate Supply (AS)’ framework, examine the resulting impact of each of the following circumstances on equilibrium aggregate output/income and equilibrium price level in the economy:**
2. **Fearing the slowdown, the Government increases its expenditure and reduces corporate taxes.**

**Solution:** The AD curve will shift rightwards, leading to increase in equilibrium income (output) and price levels.

1. **Households at large become more pessimistic about their future income. Further even firms have become more pessimistic about the future profitability of investment spending.**

**Solution:** Aggregate consumption will fall as well as Aggregate investment will also fall leading to a shift in AD Curve towards left. Therefore, Aggregate income (output) will fall as well as price levels will also fall.

1. **Government increases the amount of production subsidies to firms.**

**Solution:** AS curve will shift rightwards, leading to a fall in price levels and increase in Aggregate output (income).

1. Read the paragraph from a recent news article given below:

**Growth-inflation dynamics to guide MPC’s policy move in Feb**

Excerpts: Livemint dated December 20, 2019:

The Reserve Bank of India (RBI) expects uncertainties in inflation outlook over the next few months, while food inflation eases and remains transitory, according to the December monetary policy, which was released on Thursday.

All the members of RBI’s monetary policy committee (MPC) agreed that inflationary pressures caused largely by a spike in vegetable prices are expected to reverse by the fourth quarter of this fiscal year. However, it is still not known whether the spike in pulses and milk prices could spill over to non-food items.

In its December policy, the monetary policy committee had revised the inflation projection for the second half of the current fiscal year to 5.1-4.7% and 4-3.8% for first half of 2020-21. However, the recent reading showed that retail inflation surged to 5.54% in November with food price inflation, measured by the Consumer Food Price Index, rising to 10% from 7.89% in October. Retail inflation could touch 6% in December.

The recent increase in telecom charges, along with non-vegetable food items, could have an impact on the inflation trajectory, according to Reserve Bank governor Shaktikanta Das.

“The surge in food inflation in the last three months, driven up by a spike in onion and other vegetable prices, could be transitory. It is likely to reverse gradually as the late kharif output comes to the market. In view of this, even as the current food price spike driven by vegetables can be looked through, there is a need for greater clarity as to how the overall food inflation path is going to evolve, as there is some uncertainty about the outlook of prices of certain non-vegetable food items such as cereals, pulses, milk and sugar," said Das.

Ravindra Dholakia, the most dovish member of the committee, surprised the market with his decision to vote for a pause on policy rates. Dholakia noted that while there was space for more rate cuts, it was prudent to wait for more clarity on growth-inflation dynamics before taking a decision.

In its December policy statement, the monetary policy committee had said it will wait for further government measures in the forthcoming budget, and take a note of the pass-through of future policy actions before taking a decision to cut rates.

**A. Based on the paragraph, which kind of monetary policy is RBI following in order to revive demand and investment.**

**Solution:** As of now the MPC did not go for any further rate cut owing to a high retail inflation and maintained status quo. However, as specified in the article, there was space for rate cuts (yellow highlight). So, despite the committee has put a halt on rate cuts, but they are clearly focusing on expansion of economy. The only concern that has stopped them is rising food inflation, which also may reverse, the moment late kharif crop hits the market.

**B. Examine two possible general and two possible specific tools of monetary policy, which may help in achieving the desired objectives.**

**Solution:** The general Monetary policy tools are: Repo, Reverse Repo, CRR, SLR, MSF, Bank Rate, Open Market Operations.

In order to increase growth, MPC may like to cut Repo rate for example or may like to reduce CRR / SLR.

The specific tools include Credit rationing, Lending Margins, Moral Suasion and Direct Control.

Since a few sectors are unable to perform in economy, MPC may like to reduce the lending margins to support such sectors for credit disbursement or may direct the flow of credit to export sector, MSME sector more to boost growth in the economy.

**C. The monetary policy committee has signaled to wait for government measures in the forthcoming budget. According to you, what role fiscal policy could play in stimulating growth in the economy.**

**Solution:** As we understand, there are 4 major engines of economic growth: Consumption, Investment, and Exports.

So, under fiscal policy, the Ministry of Finance may **reduce Taxes** to support Consumption and Investment and may **increase subsidies / incentives** to support industry and export sector, i.e **Government Expenditure may increase** substantially to boost the sectors and bring them back on the track of growth.

**D. Explain the difference between food inflation and non-food inflation in CPI. Also comment upon possible condition of core inflation evident from article.**

**Solution:** CPI inflation has five major components, with following weightages:

|  |  |
| --- | --- |
| **Food and Beverages** | **45.86** |
| **Pan, Tobacco and Intoxicants** | **2.38** |
| **Clothing and Footwear** | **6.53** |
| **Housing** | **10.07** |
| **Fuel and Light** | **6.84** |
| **Miscellaneous (includes Household goods and services, health, transport and communication, recreation and amusement, education, personal care and effects** | **28.32** |

So, there is 45.86 % weightage of food and beverages. Rest is the non-food part of CPI inflation.

Even a small change in food prices will have a bigger impact on CPI (Retail) inflation.

As is evident from the article, the major reason for a rise in retail inflation is due to soaring vegetable prices with some rise in milk and pulses also. Core inflation is however measured deducting food and fuel prices, therefore, there should not be much rise in Core inflation. There may be some impact of rising telecom prices though on core inflation.

**E. Illustrate the difference between capital and revenue expenditures made by government explaining the possible implications of both.**

**Solution:**

1. Revenue Expenditure is a short period expenditure and recurring in nature which is incurred every year (as against capital expenditure which is long period expenditure and non­recurring in nature).

The purpose of such expenditure is not to build up any capital asset, but to ensure normal functioning of government machinery. Traditionally, all grants given to state governments are treated as revenue expenditure even though some of the grants may before creation of assets.

2. Capital Expenditure is an expenditure which either creates an asset (e.g., school building) or reduces liability (e.g., repayment of loan).

For economy, capital expenditures bring long term benefits.

1. **A.** Here is some balance of payments data (without pluses and minuses, in million USD)

Merchandise exports =100; Merchandise imports = 125; Tourism exports = 90;

Insurance imports = 80; Income receipts from abroad (profit of multinationals) = 110;

Income payments (interest payments) to foreigners= 150; Increase in home country´s ownership of assets abroad =160; Increase in foreign ownership of assets in home countries = 200

Assuming that unilateral transfers equal zero, find:

1. Merchandise trade balance: **Exports of goods – Imports (100 – 125) = -25 million USD**
2. Net exports (services and income) **= (90 - 80) + (110 – 150) = - 30 mn USD**
3. The current account balance **= -25 – 30 = -55 mn USD**
4. The capital and financial account balance = **200 – 160 = 40 mn USD**

Current + Capital and Financial Account Balance: **-55 + 40 = - 15 mn USD**

1. Change in Official Reserve Assets = **+ 15 million USD (As country is now required to finance its deficit by borrowing foreign exchange from external sources or by selling some of its assets)**

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**B.** Explain the impact on Dollar/Rupee exchange rate due to following factors:

(i) Price levels in India fall as compared to US: **INR appreciates and USD depreciates as our goods will be economic now and exports will rise.**

(ii) There is an increased demand of US technological products in India: **INR depreciates, USD appreciates. As imports of India will rise.**

(iii) Federal Reserve US has reduced the interest rates.: **INR appreciates, USD depreciates. As FPI investments will flow from US market to Indian market.**

(iv) Global Crude oil prices rise: **INR depreciates; USD appreciates: As crude oil imports will be costlier for India**

(v) FDI inflows fall owing to poor economic forecasts of about India: **INR depreciates; USD appreciates; as there shall be less inflow of foreign exchange.**

(vi) India has imposed higher duties on imports from US: **INR appreciates; USD depreciates; As imports will be lesser now.**

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