ANSWERS

1.)Data given (Units in billions of shillings)

$C = 500 + (0.5)Yd$, $I = 100$, $T = 80$, $G = 200$

From the above data we see that the economy is closed economy because there is no existence of export and import

(a)Required to solve for the good market equilibrium (also find equilibrium Y,Z,C and Yd)

From the condition of good market equilibrium

Current Output (Y) = Aggregate Expenditure (Z)

$Y = Z$ where $Z = C + I + G$

Therefore

$Y = 500 + (0.5)Yd + 100 + 200$

$Y = 800 + (0.5)Yd$

But $Yd = Y - T$

$Yd = Y - 80$

$Y = 800 + (0.5)(Y - 80)$

$Y = 800 + 0.5Y - 40$

$Y - 0.5Y = 760$

$0.5Y = 760$

$Y = 1520$

But $Y = Z = 1520$

Also $Yd = Y - T$

$Yd = 1520 - 80$

$Yd = 1440$

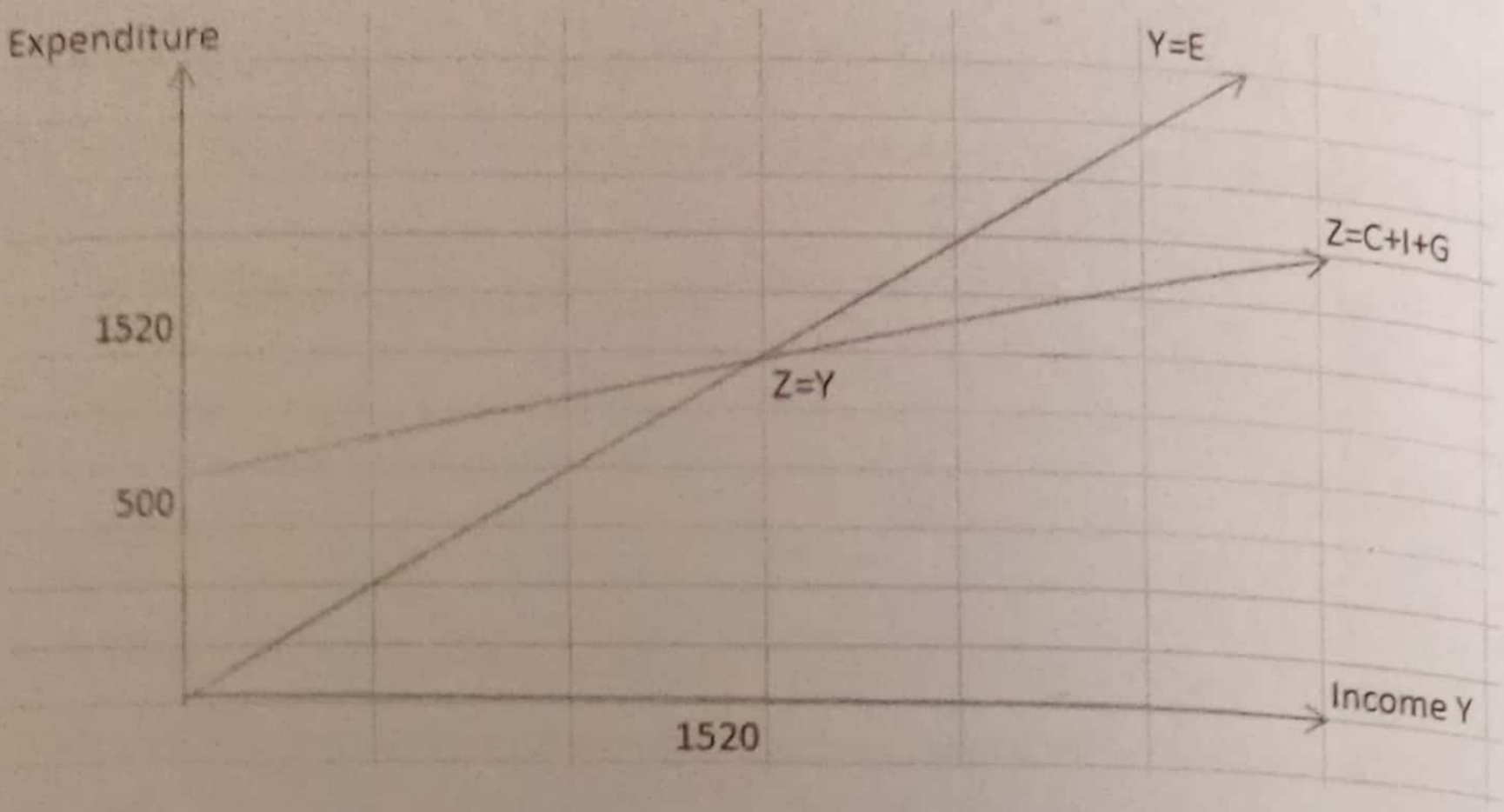
Also $C = 500 + (0.5)Yd$

$C = 500 + (0.5)(1440)$

$C = 1220$

Therefore equilibrium $Y = 1520$, $Z = 1520$, $Yd = 1440$ and 1220

(b) Required to graph with correct labels the equilibrium Y and Z



(c) Require to solve for private and public saving

Private saving is saving done by firms and households

Private saving = Y – I – C

Private saving = 1520 – 100 -1220

Private saving = 220

Public saving is a saving done by government

Public saving = T – G

Public saving = 80 – 200

Public saving = -120

(d) Marginal propensity to consume (MPC) is ratio between change in consumption with change in disposable income. It tell us how consumption will change in response to change in disposable income

$$MPC = \frac{change\ in\ consumption}{change\ in\ disposable\ income} = b$$

MPC = 0.5

Marginal propensity to save (MPS) is ratio between change in saving with the change in disposable income. It tell us how saving will change in response to change in disposable income

$$MPS = \frac{change\ in\ saving}{change\ in\ disposable\ income} = 1 - b = 1 - MPC$$

MPS = 1 – 0.5

MPS = 0.5

The relationship between MPS and MPC is that they are inversely related if MPC increase means MPS decrease and when MPS increase means MPC decrease

(e) Multiplier is used to show how aggregate expenditure and income changes when autonomous component of spending changes.

$$\text{Multiplier} = \frac{1}{1-b} = \frac{1}{1-MPC} = \frac{1}{MPS}$$

$$\text{Multiplier} = \frac{1}{0.5} = 2$$

Autonomous spending is a type of spending which does not depend on a disposable income.

Autonomous spending = a

From C = a + bYd = 500 + 0.5Yd

Autonomous spending = 500

(f) Given now G increase fro 200 to 240 required to find equilibrium demand, output, consumption and disposable income

C = 500 + (0.5)Yd, I = 100, T = 80, G = 240

From the condition of good market equilibrium

Current Output (Y) = Aggregate Expenditure (Z)

$Y = Z$ where $Z = C + I + G$

Therefore

$$Y = 500 + (0.5)Yd + 100 + 240$$

$$Y = 840 + (0.5)Yd$$

But $Yd = Y - T$

$$Yd = Y - 80$$

$$Y = 840 + (0.5)(Y - 80)$$

$$Y = 840 + 0.5Y - 40$$

$$Y - 0.5Y = 800$$

$$0.5Y = 800$$

$$Y = 1600$$

But $Y = Z = 1600$

Also $Yd = Y - T$

$$Yd = 1600 - 80$$

$$Yd = 1520$$

Also $C = 500 + (0.5)Yd$

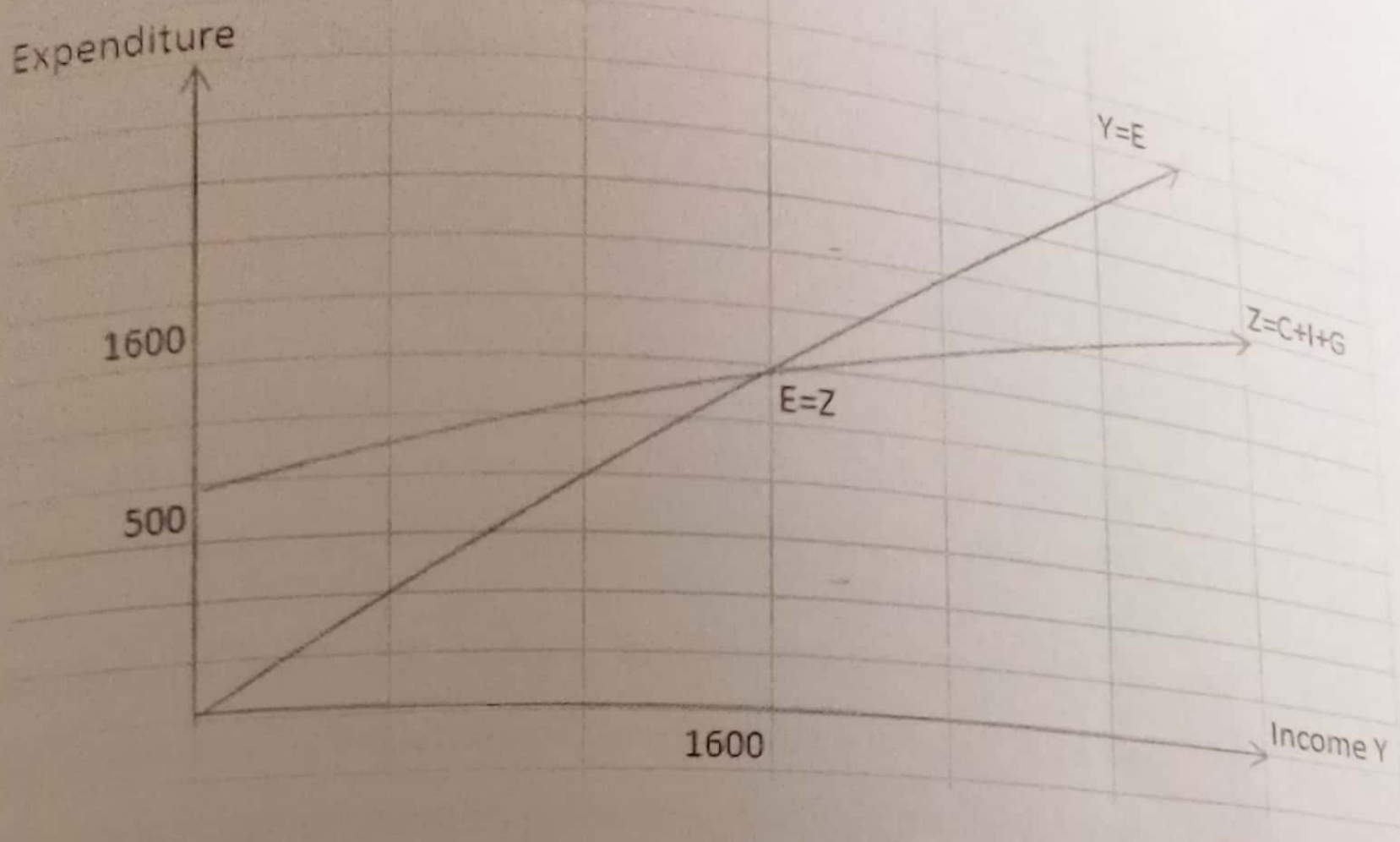
$$C = 500 + (0.5)(1520)$$

$$C = 1260$$

Therefore equilibrium demand = 1600, equilibrium output = 1600, consumption = 1260 and

disposable income = 1520

Required to graph with correct labels the equilibrium Y and Z



The reasons for the government to apply fiscal expansion are to increase money supply, increase employment in the country and to control price issues like deflation.

2.) Given that $C = 100 + 0.75(Y - 100)$, $I = 50$, $G = 30$ and $X - M = -100$. From the data we see that the economy is open economy.

Simple expenditure multiplier $= \frac{1}{1-b} = \frac{1}{1-MPC} = \frac{1}{MPS}$

Simple expenditure multiplier $= \frac{1}{1-0.75} = 4$

Simple expenditure multiplier = 4

Real GDP = C + I + G + X – M = Y

$Y = 100 + 0.75(Y - 100) + 50 + 30 - 100$

$Y = 5 + 0.75Y$

$0.25Y = 5$

$Y = 20$

When government expenditure increase to 40

Real GDP = C + I + G + X – M = Y

$Y = 100 + 0.75(Y - 100) + 50 + 40 - 100$

$Y = 15 + 0.75Y$

$0.25Y = 15$

Real GDP demanded = Y = 60

Therefore if government expenditure increase to 40 real GDP demanded will increase to 60

3.) Aggregate demand is the total demand for the final goods and services in an economy at a given time. The demand by the actors of the economy which are households for consumption, firms for investments, government in government spends and foreigners in their role of import and exports.

The different between aggregate demand and GDP is that GDP represent total amount of goods and services produced in an economy while aggregate demand is the desire for those goods produced in the economy.

The relationship between the aggregate demand and GDP is that in long run Aggregate demand only equals to GDP after adjusting for the price levels. In short run economic growth is caused by an increase in aggregate demand. If there is spare capacity in the economy then an increase in aggregate demand will cause a higher level of real GDP.

Aggregate supply is total amount of goods and services produced in the economy at a given time by the actors of the economy which are households, firms, government and foreigners.

REFERENCES

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