

Answers *Macroeconomics*

6 Aggregate Demand (Keynesian Model)

1 Consumption, investment and saving (neither government nor foreign trade)

Answers to questions 1.1 - 1.10

A 1.1

- $a = 10$
- $b = \frac{\text{change in } C}{\text{change in } Y} = \frac{(40-10)}{50} = 0.6$

A 1.2

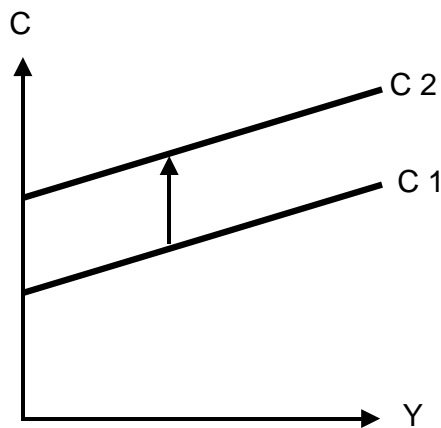
- Autonomous consumption (a): consumption that does *not* depend on income
- Induced consumption (bY): consumption that depends on income

A 1.3

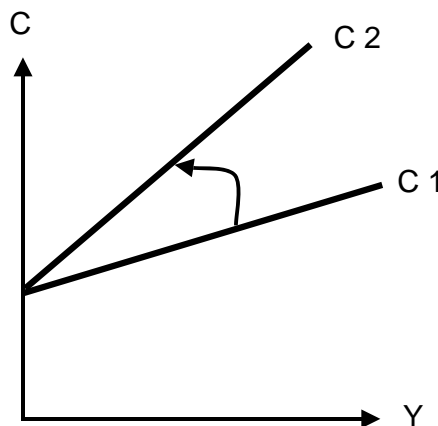
MPC is the slope of C and it shows which proportion of extra income is consumed.

A 1.4

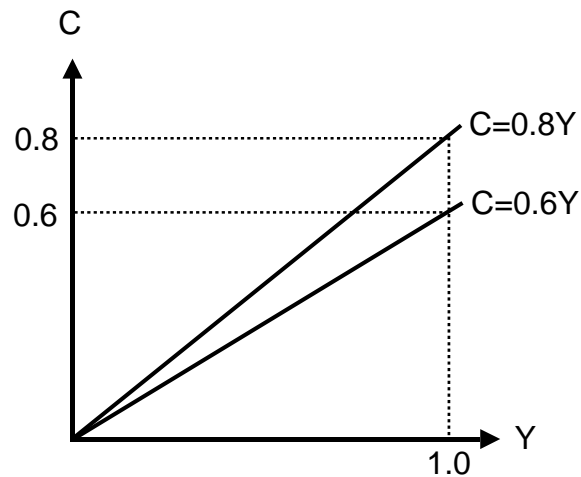
- If a rises: C shifts upwards.



- If b rises: C gets steeper.



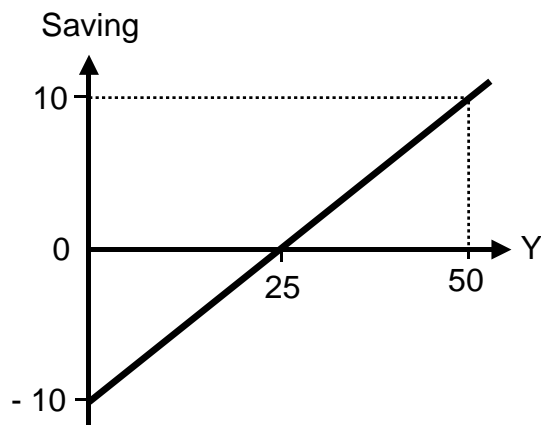
A 1.5



- Consumption function country A ($C = 0.8Y$) is steeper than consumption function country B ($C = 0.6Y$), that is, in country A out of income proportionately more is consumed and less is saved than in country B.
- There is only induced consumption in both countries.

A 1.6

Slope of the saving-line: $1 - b = 1 - 0.6 = 0.4$



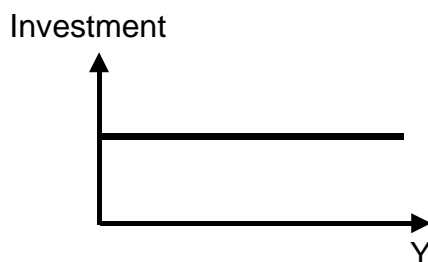
A 1.7

$MPS = 1 - b = 0.4$ (slope of the saving-line)

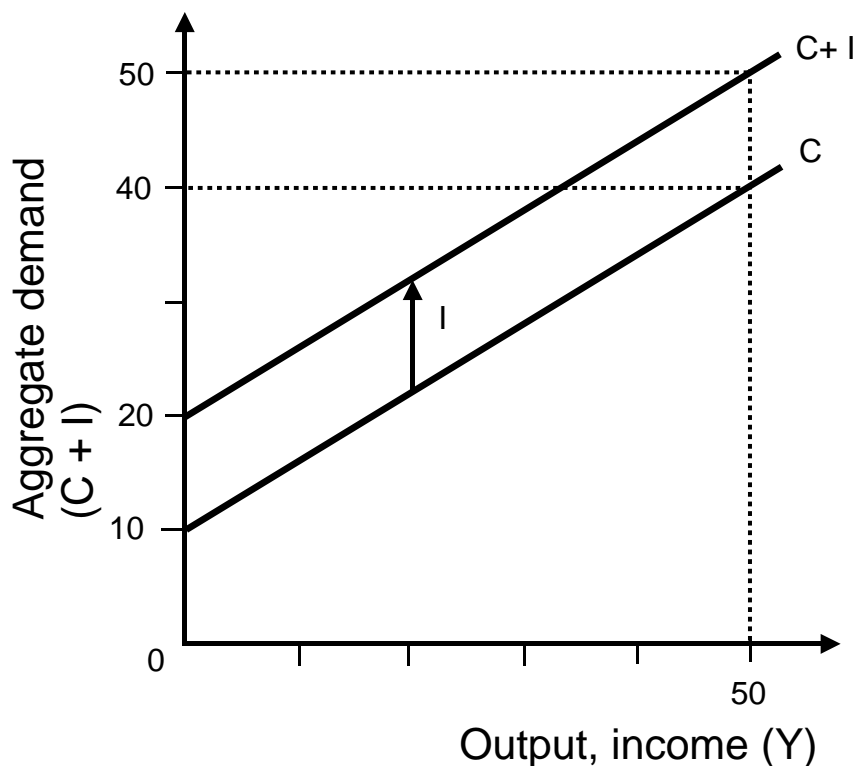
A 1.8

- $MPC = b$
- $MPS = 1 - b$
- $MPC + MPS = b + (1 - b) = 1$
Income is either consumed or saved. There is no alternative.

A 1.9



A 1.10



Answers to questions 1.11 - 1.20

A 1.11

The 45°-line shows equal values for planned AD and Y (output, income).

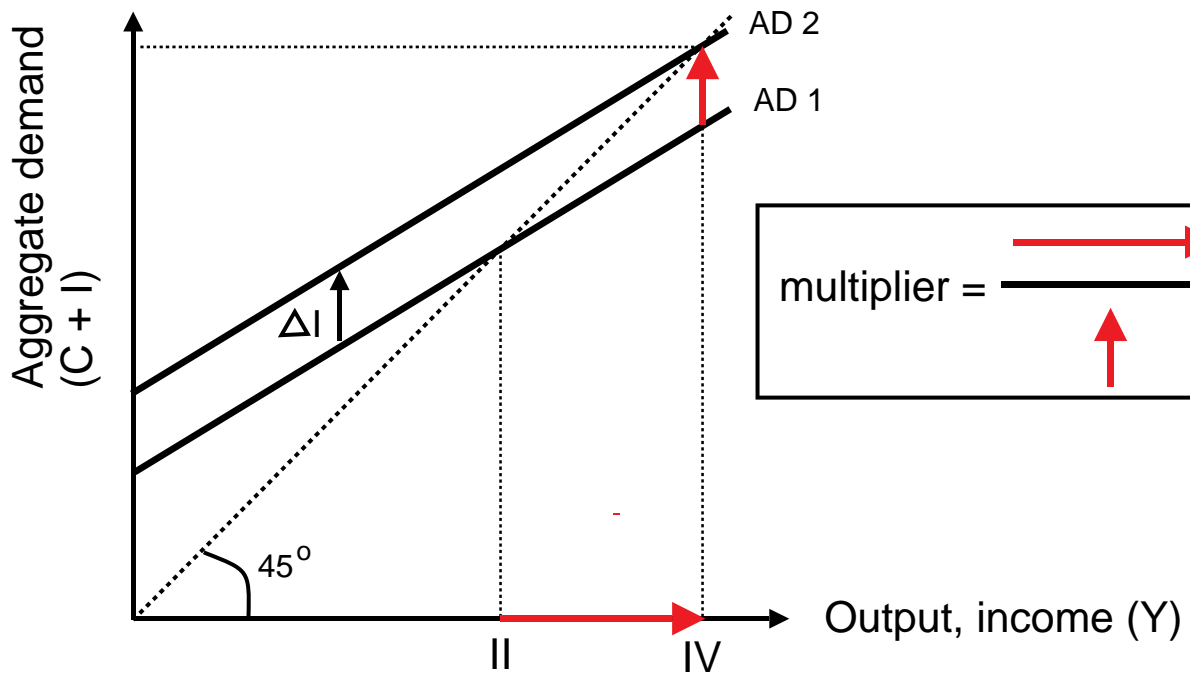
A 1.12

Equilibrium in graph 2 is at point II (planned AD = Y).

A 1.13

The equilibrium-Y is not necessarily the full-employment-Y. The full-employment-Y can be lower or higher than the equilibrium-Y. In the latter case, there exists (natural) unemployment.

A 1.14



- New equilibrium is located at point IV.
- Multiplier = $\frac{\text{change in } Y}{\text{change in AD}}$

A 1.15

- Point I: planned AD > Y: Stocks fall, Y is increased.
- Point III: planned AD < Y: Stocks rise, Y is reduced.

or

A 1.16

- Multiplier = $\frac{\text{change in } Y}{\text{change in AD}}$
 - + 2.4 = $\frac{+ 600}{\text{change in AD (I)}}$
- Change in I = $\frac{+ 600}{+ 2.4} = + 250$

A 1.17

$$\text{Multiplier} = \frac{1}{1 - 0.75} = 4$$

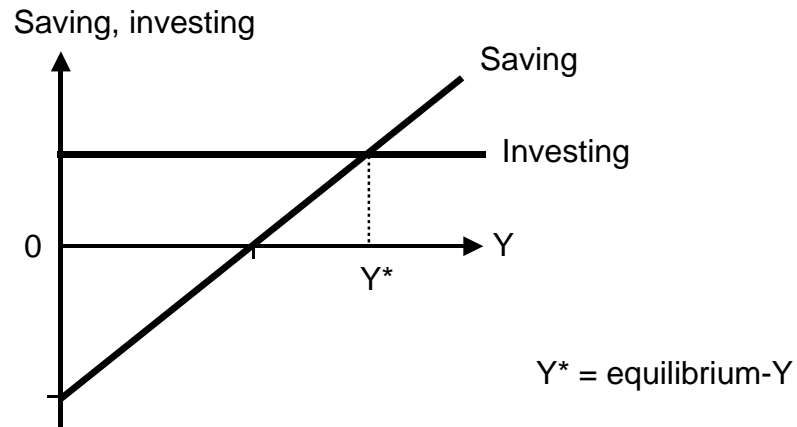
A 1.18

- MPS = 1 - MPC
- Multiplier = $\frac{1}{1 - \text{MPC}} = \frac{1}{\text{MPS}} = \frac{1}{0.26} = 3.8$

A 1.19

- Multiplier I = $\frac{1}{1 - 0.8} = 5$ (\rightarrow larger)
- Multiplier II = $\frac{1}{1 - 0.7} = 3.3$

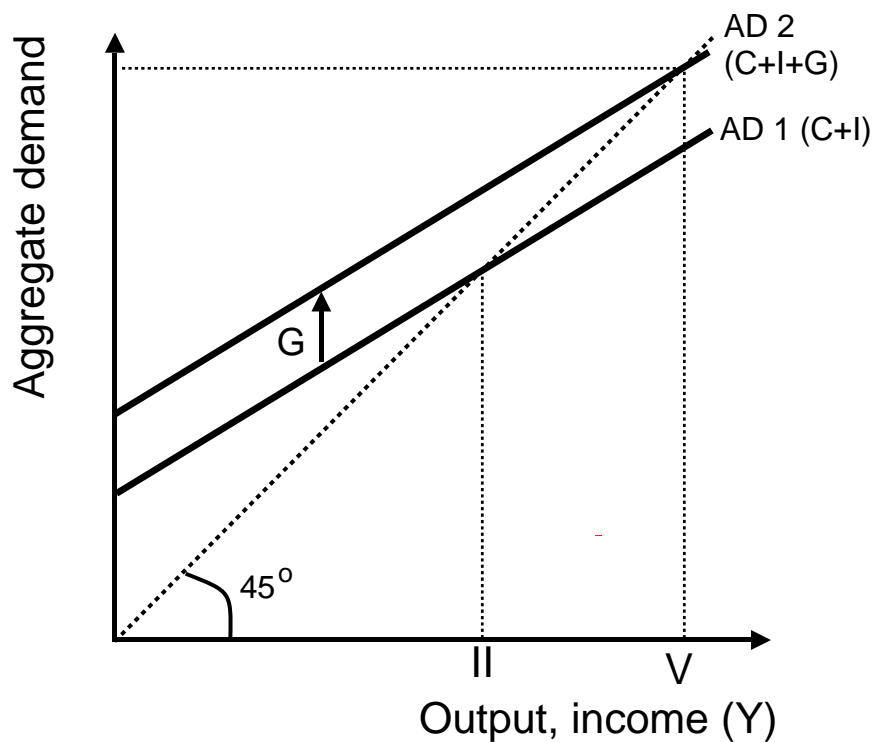
A 1.20



2 Aggregate demand with government (but without trade)

Answers to questions 2.1 - 2.3

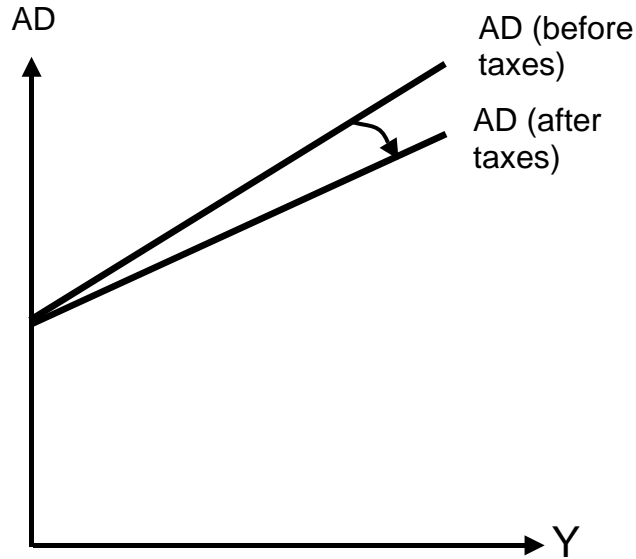
A 2.1



A 2.2

- $C = a + b(Y - tY) = a + (b - bt)Y$
- Multiplier = $\frac{1}{1 - (b - bt)}$

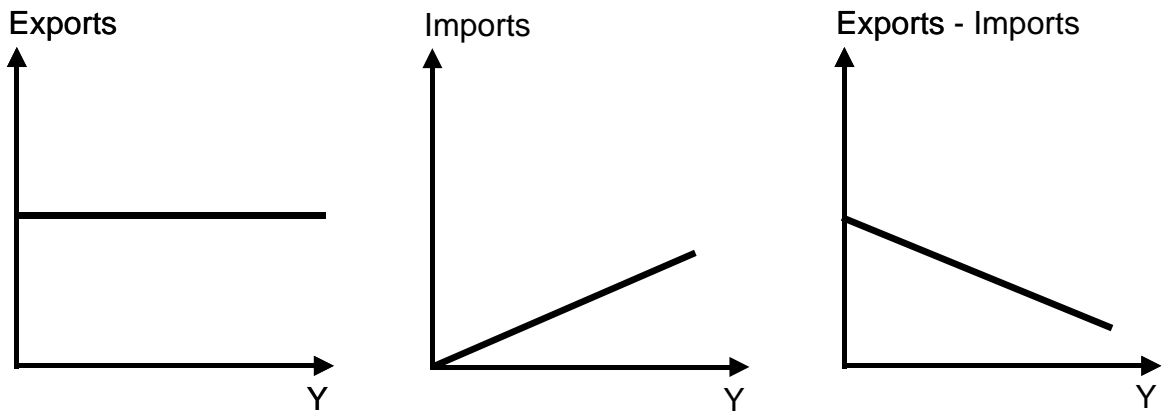
A 2.3



3 Aggregate demand with government and foreign trade

Answers to questions 3.1 - 3.5

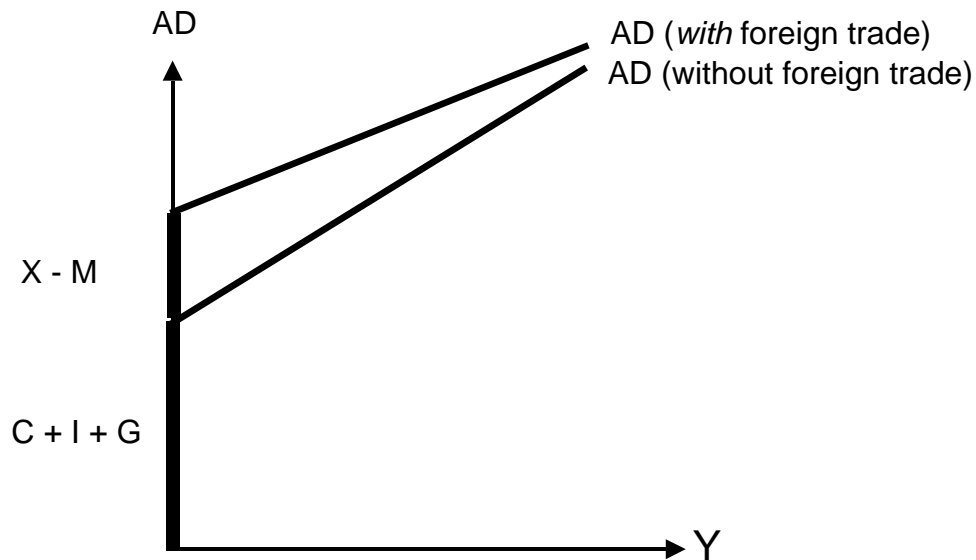
A 3.1



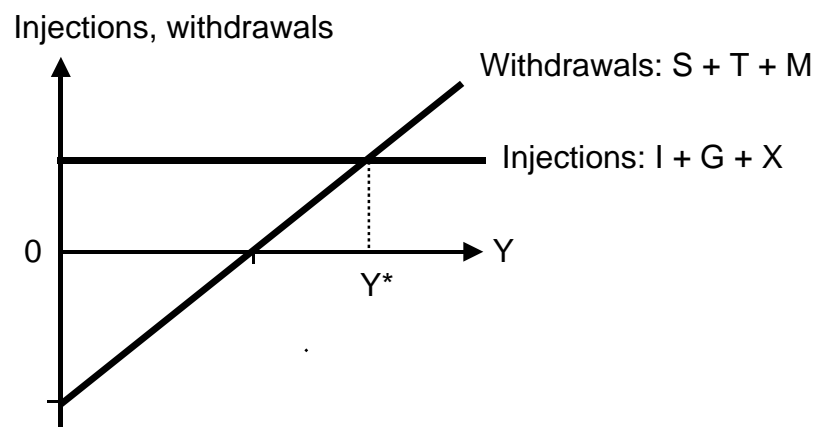
A 3.2

- $AD = a + b(Y - tY) + I + G + (X - mY) = a + (b - bt - m)Y + I + G + X$
- Multiplier = $\frac{1}{1 - (b - bt - m)}$

A 3.3



A 3.4



A 3.5

- $(X - M) < 0$ or $M > X$
- Domestic deficits must be borne by foreign countries.

→ Back to the questions. Click here!