



Q8. We suppose that $C = 70 + 0.70Y_D$, $I = 90$, $G = 100$, $T = 0.10Y$

(a) Find the equilibrium income.

(b) What are tax revenues at equilibrium Income? Does the government have a balanced budget?

Ans: (a) $C = 70 + 0.70 Y_D$

$I = 90$

$G = 100$

$T = 0.10Y$

$Y = C + I + G$

$Y = 70 + 0.70Y + 90 + 100$

$Y = 70 + 0.70Y_D + 190$

$Y = 70 + 0.70(Y - T) + 190$

$Y = 70 + 0.70Y - 0.70 \times 0.10 Y + 190$

$Y = 70 + 0.70Y - 0.07Y + 190$

$Y = 70 + 0.63Y + 190$

$Y = 260 + 0.63Y$

$Y - 0.63Y = 260$

$0.37Y = 260$

$Y = 260/0.37$

$Y = 702.7$

(b) $T = 0.10Y$

$= 0.10 \times 702.7$

$= 70.27$

Government expenditure = 100

Tax revenue = 70.27

As, $G > T$, Government has a deficit budget, not a balanced budget.

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