THE UNIVERSITY OF WESTERN ONTARIO KING'S COLLEGE

Macro Problem Set#2: Keynesian Model

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1. The chart below summarizes the consumption function for a household where taxes are zero.

Income	Consumption Expenditure
\$ 0	\$ 4,000
\$10,000	\$12,000
\$20,000	\$20,000
\$30,000	\$28,000
\$40,000	\$36,000
φ10,000	ψ50,000

(a) Compute the following when disposable income is **\$40,000**:

(i) APC (Average Propensity to Consume) and APS (Average Propensity to Save)

(ii) MPC (marginal propensity to consume) and MPS (marginal propensity to save)

(iii) the level of saving

- (b) Carefully sketch the consumption function above **and** sketch the implied savings function as well. Briefly explain your derivation of the savings function.
- (c) If planned investment expenditures amount to \$2,000 regardless of the income level, determine the equilibrium level of income (GDP). Explain your answer. Assume government expenditures and net exports are both zero.
- (d) Draw a fully labelled diagram to show your equilibrium.
- 2. Suppose the following equations characterize a given economy:

 $\begin{array}{rll} C &=& 200 \ + \ 0.75 \ Y \\ \text{and} & I &=& 200 \\ \text{where } C = \text{consumer expenditures, } I = \text{investment expenditures and } Y = \text{real GDP or} \\ \text{output. Determine:} \end{array}$

(a) the numerical value for the marginal propensity to consume (MPC) and provide a brief definition of MPC.

(b) the $\underline{equation}$ for the savings function (S).

(c) the equilibrium value of real GDP (Y), Consumption (C) and Savings (S). Be sure to identify the equilibrium condition for this economy.