

Answer on Question #67015 – Economics - Microeconomics

Question

Consider a perfectly competitive exchange economy with no production, and two different goods 1 and 2. Let p_1 and p_2 be the prices of the goods. The economy is populated by two people A and B. A's initial endowment of the two goods is given by (w_1, w_2) , and B's initial endowment is (w_3, w_4) . A can choose any bundle (x_1, x_2) and B can choose any bundle (x_3, x_4) . In this pure exchange economy write out the conditions for a Walrasian equilibrium. Show that for such an economy for any equilibrium set of prices that the absolute price level is indeterminate

Answer

- Each consumer maximizes utility subject to budget constraint:

$$(x_1, x_2) = \max_{x_1, x_2} U^1 = (x_1, x_2)$$

s.t.

$$p_1 x_1 + p_2 x_2 \leq p_1 w_1 + p_2 w_2$$

$$(x_3, x_4) = \max_{x_3, x_4} U^2 = (x_3, x_4)$$

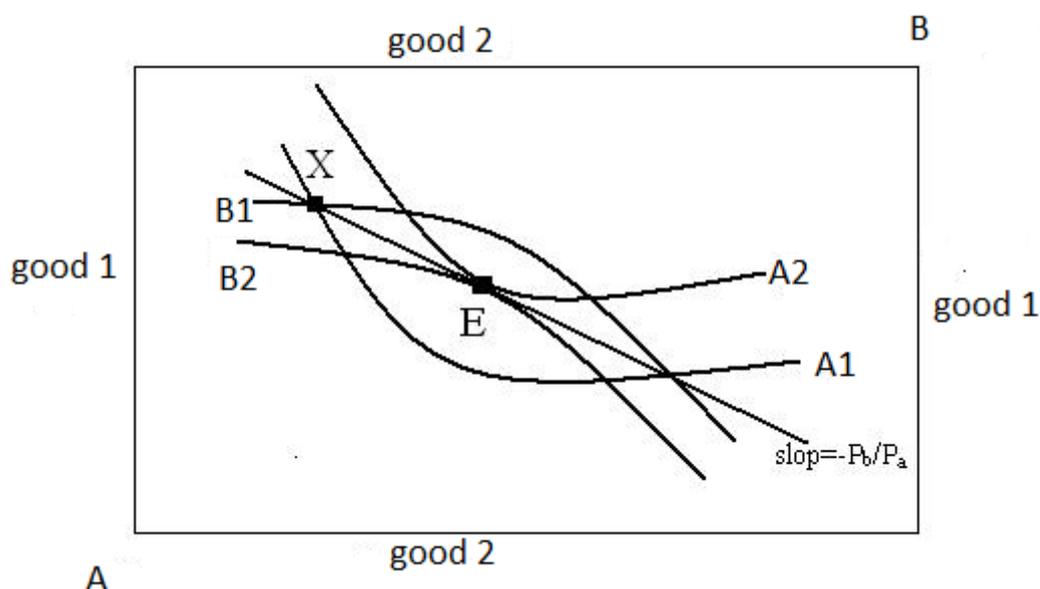
s.t.

$$p_1 x_3 + p_2 x_4 \leq p_1 w_3 + p_2 w_4$$

- Markets clear:

$$x_1 + x_3 \leq w_1 + w_3$$

$$x_2 + x_4 \leq w_2 + w_4$$



After trading, both A and B move to an indifference curves 2 which depict a higher level of utility and intersect at point E. The slope of the tangent of both curves equals $-p_1/p_2$. The marginal rate of substitution of A equals that of B.