

## A QUICKWAY TO DERIVE AN OFFER CURVE

WRITE THE BUDGET CONSTRAINT IN  $\Delta$ -FORM,  
THEN SUBSTITUTE THE MRS EXPRESSION FOR  $p$ ,  
THE RELATIVE PRICE.

### EXAMPLES:

$$\textcircled{1} \quad u(x, y) = y + \alpha \log x \quad \text{MRS} = \frac{\alpha}{x} = \frac{\alpha}{x^0 + \Delta x}$$

$$\Delta y = -p \Delta x = -\frac{\alpha}{x^0 + \Delta x} \Delta x \quad \text{IS THE OFFER CURVE,}$$

FOR  $x > 0$ , i.e.,  $\Delta x > -x^0$ .

$$\textcircled{2} \quad u(x, y) = x^\alpha y^\beta \quad \text{MRS} = \left(\frac{\alpha}{\beta}\right) \frac{y}{x} = \frac{\alpha}{\beta} \left(\frac{y^0 + \Delta y}{x^0 + \Delta x}\right)$$

$$\Delta y = -p \Delta x = -\frac{\alpha}{\beta} \left(\frac{y^0 + \Delta y}{x^0 + \Delta x}\right) \Delta x \quad \text{IS THE OFFER CURVE.}$$