

$$m = P_1 X_1 + P_2 X_2$$

$$m - P_1 X_1 = \cancel{P_1 X_1} - \cancel{P_1 X_1} + P_2 X_2$$

$$X_2 = \underbrace{\frac{m}{P_2}}_{\text{intercept}} - \underbrace{\frac{P_1}{P_2} X_1}_{\text{slope}}$$

$$X_2 = \frac{m}{P_2} - \frac{P_1}{P_2} X_1$$

$$- \frac{\downarrow P_1}{P_2} \quad \downarrow$$