

Homework 5

1. Consider a modified small open economy model,

$$Y = C(Y - T) + I(r) + G + X(\varepsilon, \tau),$$

where τ is tariff rate on imported goods. We assume that $X_2 \equiv \frac{\partial X}{\partial \tau} > 0$.

- (1) Use the implicit function theorem to obtain $\frac{\partial \varepsilon}{\partial \tau}$. Is it positive or negative?
- (2) Use a graph to illustrate your result in (1).

2. Consider the following model of a large open economy,

$$Y = C(Y - T, \varepsilon) + I(r) + G + F(r),$$

$$X(\varepsilon) = F(r),$$

Assume that $\frac{\partial C}{\partial \varepsilon} < 0$.

- (1) Draw a graph to illustrate the equilibrium of the economy.
- (2) If the government increases its expenditure, what would happen to the equilibrium interest rate and exchange rate?