Homework 9

1. Suppose that in the large open economy, the net export depends on total income as well as the exchange rate,

$$X = X(e, Y),$$

where $\partial X / \partial Y < 0$. Analyze the effect of a decline in investment sentiment on the exchange rate.

2. Suppose that the IS and LM equations are as follows,

$$\textbf{IS: } Y = C(Y - T) + I(r) + G,$$
$$C(Y - T) = a + b \cdot (Y - T),$$
$$I(r) = d - e \cdot r,$$

$$\textbf{LM: } \frac{M}{P} = L(r, Y) = M_0 + f \cdot Y - g \cdot r,$$

where a, b, d, e, f, g, and M_0 are all positive constants and $b < 1$.
   a) Derive the AD equation from the IS and LM equations.
   b) How does the AD curve shift when there is a negative shock to the investment sentiment. Specifically, the investment function becomes $I(r) = d - d_0 - e \cdot r$, where $d_0 > 0$.

3. Draw the AD curves for the following models:
   a) The small-open-economy model with a floating exchange rate.
   b) The small-open-economy model with a fixed exchange rate.