Homework 10

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

$$\textbf{IS}: \quad Y = C(Y-T) + I(r) + G,$$
$$C(Y-T) = a + b \cdot (Y-T),$$
$$I(r) = d - e \cdot r,$$
$$\textbf{LM}: \quad \frac{M}{P} = L(r,Y) = M_0 + f \cdot Y - g \cdot r,$$

   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 $d_0 > 0$.

2. 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.