Homework 9

1. From an IS-LM model, derive the slope of the corresponding AD curve. How does the AD curve change if MPC of the economy increases?

2. 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 $d_0 > 0$.

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.