Econ 522: Intermediate Macroeconomics, Fall 2017
Chapter 6 Open Economy Practice Problems

1. Define net capital outflow, and net exports. Explain how the two are related.

2. Define the nominal exchange rate and the real exchange rate.

3. Consider an economy described by the following equations:

$$\begin{aligned}
Y &= C + I + G + NX, \\
Y &= 5,000, \\
G &= 1,000, \\
T &= 1,000, \\
C &= 250 + 0.75(Y - T), \\
I &= 1,000 - 50r, \\
NX &= 500 - 500\epsilon, \\
r &= r^* = 5
\end{aligned}$$

   (a) In this economy, solve for national saving, investment, the trade balance, and the equilibrium exchange rate.

   (b) Imagine now that G increases to 1,250. Solve for national saving, investment, the trade balance, and the equilibrium exchange rate. Explain what you find.

   (c) Now imagine that the world interest rate rises from 5 to 10 percent, and that G has returned to its original level of 1,000. Solve for national saving, investment, the trade balance, and the equilibrium exchange rate. Explain what you find.

4. Use the small open economy model to predict what would happen to the trade balance, real exchange rate, and the nominal exchange rate in response to each of the following events.

   (a) Declining consumer confidence about the future induces consumers to spend less and save more.

   (b) Tax reform increases firm incentives to build new factories.

   (c) A cool new product produced abroad increases preferences for imports over domestic goods.

5. Imagine a small open economy that specializes in production and export of pagers. What happens if a sudden change in worldwide tastes makes pagers less popular. In particular,

   (a) What happens to the country's saving, investment, net exports, the interest rate, and the exchange rate? Hint: think of the decline in demand for exports from the country as shifting the country's NX (FX demand) curve. Only one of the listed variables will end up changing. And it will be the one determined by FX supply and demand equilibrium.

   (b) How will this change in the exchange rate impact residents of the country who like to travel abroad? Will doing so become more or less expensive?

   (c) If the country's government wanted to adjust taxes to maintain the exchange rate at its previous level, what should it try to do? And what would be the overall effects on saving, investment, net exports, and the interest rate?