Practice Exam 3 (12/7/2018)

- You have 75 minutes to complete this exam.
- You may use a calculator; you may **not** use any other device (cell phone, etc.)
- You may consult one page of notes (both sides); you may not use books, notebooks, etc.
- Show your work.

I understand that the honor code applies: I will not lie, cheat, or steal to gain an academic advantage, nor tolerate those who do.

Signature

Printed Name

1. [5 pts] The home country fixes its exchange rate to the foreign country and has open capital markets. When the foreign interest rate rises, all else equal, what happens to the stock of foreign reserves at the home central bank? Explain your answer.

2. [5 pts] Why do countries with a fixed exchange rate use monetary policy, rather than fiscal policy, to manage the exchange rate?

3. [5 pts] Consider two countries, home and foreign, each of which peg their currency to the U.S. dollar. Suppose home devalues its currency against the dollar and foreign does not. Clearly explain how the devaluation in home affects foreign output. Use an IS-LM diagram for the foreign country.

4. [5 pts] Suppose the home country has a floating exchange rate. International investors are becoming increasingly worried that the home country will impose capital controls. All else equal, how would you expect the exchange rate to change? Explain your answer.

The home country fixes its exchange rate against the dollar at one-to-one and allows for the free flow of international capital. The home country's central bank holds $100 of home country bonds, makes $200 of loans to its domestic commercial banks, and holds $300 of dollar reserves. Use this information to answer questions 5–8.

5. [5 pts] Write out the home central bank's balance sheet.

6. [5 pts] A drop in asset prices has made many of home's commercial banks insolvent. Define what it means for a bank to be insolvent.

7. [10 pts] The central bank decides to make new loans to the domestic banking system. If the central bank wants to keep the fixed exchange rate, what is the maximum value of the loans it can make? Explain your answer.

8. [5 pts] Suppose the home central bank made the maximum loan amount you calculated in part (c). The central bank then receives a loan from the IMF for $800 of reserves. Write out the home central bank's balance sheet.

9. [15 pts] Consider the "second generation" currency crisis model in which beliefs over the central bank's commitment to the fixed exchange rate may change. Explain why it is more costly to defend a peg when the market thinks the peg is not credible. You should reference an IS-LM-FX diagram in your answer.

10. [15 pts] Consider the "first generation" currency crisis model in which fiscal dominance creates the crisis. Why do myopic agents generate a jump in the exchange rate when the central bank runs out of reserves? What assumption about prices is key to generating this result?

11. [15 pts] Define the backing ratio. Can it be greater than one? If so, explain how a central bank can achieve it. If not, explain why it cannot.

12. [5 pts] Under the gold standard, the price of gold in terms of francs is P^{FR} and the price of gold in terms of dollars is P^{US}. What is the par exchange rate in terms of dollars per franc?

13. [5 pts] *Challenging.* Suppose a country with a fixed exchange rate and the free movement of international capital experiences a positive shock to IS which puts equilibrium output greater than the target output level, $\bar{Y}$. Why is responding to this situation less likely to cause an exchange rate crisis than responding to a negative shift of IS? Explain your answer.

Extra Space

Clearly label the question number, and leave a reference to this page near the question.