Econ 448
Final Exam
May 12, 2012

Write all answers in your blue book. Show all of your work. The exam ends at 4:30.

Use the following information to answer Questions 1 and 2. Assume capital mobility and risk neutrality. In the short run, prices on average are not flexible but interest rates are. In the long run, prices and interest rates are flexible, and the quantity theory of money and purchasing power parity hold. Assume that South Korea and Japan operate under a flexible exchange rate system. Take the perspective of Korea as the home country, and define the exchange rate as Korean won per Japanese yen. For simplicity, assume that neither Korea and nor Japan has growth in real potential Gross Domestic Product. Each country maintains a constant nominal money supply, until period T, when the Bank of Korea makes a permanent one-time increase in its money supply, due to a change in its monetary regime. Everyone sees the increase and believes that it will be permanent.

1. (25pts) Use a money market diagram for Korea and a foreign exchange market diagram to show the economic effects of Korea's monetary regime change. Accompany your graph with an explanation of what happens. On your foreign exchange market diagram be explicit about what the expected foreign return (FR) curve represents. On your diagrams, show the initial equilibrium (labeled point A), the short-run effects (labeled point B) and the long-run effects (labeled point C). On your foreign exchange market diagram, show where the short-run equilibrium would have been if the money supply increase had been only temporary, and people had known the increase was not due to a change in monetary regime. Label that point B'.

2. Suppose that the permanent increase that Korea made in its money supply was a 20% increase. On your graph paper, plot each of the following variables on a separate chart with time on the horizontal axis. On each chart, put time period T at about the middle of the horizontal axis. Each chart should show the short-run and long-run effects of Korea's actions. Draw each of the graphs carefully, to be consistent with the fact that Korea's money supply rises permanently by 20% at time T.

(a) (2pts) Korea's nominal money supply.
(b) (2pts) Korea's price level.
(c) (2pts) Korea's real money supply.
(d) (2pts) Korea's nominal interest rate.
(e) (2pts) The nominal exchange rate between the Korean won and the Japanese yen.

For questions 3-6, consider This Time is Different by Carmen Reinhart and Kenneth Rogoff.

3. (5pts) What is the one common theme to the wide range of financial crises Reinhart and Rogoff consider?

4. (10pts) What standard indicators do Reinhart and Rogoff note the United States exhibited in its run up to the 2007 sub-prime financial crisis?

5. (10pts) Aftermaths of severe financial crises share what three characteristics?

6. (5pts) What two reasons do Reinhart and Rogoff give for why we need a financial regulatory institution that is international?

7. (a) (5pts) Of the five criteria for a country's admission to the Eurozone, two are fiscal rules that are supposed to continue to hold after admission. What are those two fiscal criteria?

(b) (20pts) According to Alan Taylor in International Macroeconomics, Second Edition what is the European Union's reasoning for having these fiscal criteria, and how does Germany's influence show in these fiscal criteria?

(c) (5pts) Consider Katty Kay's observation about the "fundamental fault line in the Eurozone experiment" on the Diane Rehm Show April 25, 2012 entitled "Backlash Over Eurozone Austerity Measures." What is this "fundamental fault line" and how is it related to Alan Taylor's explanation for the Eurozone fiscal criteria?

8. Consider the excerpts below from the Wall Street Journal.

Wall Street Journal May 8, 2012

The End Of Austerity By ALEN MATTICH

One reading of [this weekend's] elections is that the French and Greeks have voted themselves more German money. [However], fiscal transfers [from Germany to the peripheral Eurozone countries in crisis] are unlikely. It's doubtful Germans would be willing to agree to the sort of taxes and transfers that followed [East-West German] reunification to benefit countries across Europe's periphery. Indeed, the scale of necessary transfers from the core to the periphery would make the economics of [German] reunification look temporary and modest.

The alternative of the European Central Bank doing the transfers would eventually be just as unpalatable. That's because the result would prove inflationary [in Germany]. German jobless levels are at multi-decade lows and the country is probably at full employment. Wage demands [in Germany] are already running closer to 6% increases. ECB efforts at stoking up money supply in the periphery could well fail to do so there, because of the weak economic environment, but the excess credit could end up flowing to where banks have the most confidence about growth, i.e. Germany. Europe could well see a mirror image of what happened in the first part of the 2000s when Germany suffered declining real wages while the periphery went through a huge credit bubble that resulted in a catastrophic bust…[Germany] could institute macro-prudential policies to prevent credit booms by forcing German banks to hold higher reserves and capital ratios or alternatively to take some of the heat out of the economy with a tighter fiscal policy, probably higher taxes….Maybe the German government could raise property taxes to prevent a property bubble, but then the liquidity might flow to other fixed assets, say to companies. It doesn't matter which assets start to rise--as we found during the last bust, if the assets values are being driven by leverage, eventually the boom produces a nasty bust…. If the ECB errs too much on one side, the periphery sinks back into recession. Too much on the other and it will have a German boom and bust on its hands.

(40pts) Do the Eurozone countries constitute an optimal currency area? Explain your reasoning. Refer to specific information in the article above, as well as analysis from Alan Taylor in International Macroeconomics, Second Edition.

9. For questions (a) and (b) consider a hypothetical country called Home that has been pegging its currency (the peso) against a foreign currency (the dollar), at a rate of 1-to-1. Assume people are risk neutral and there is capital mobility between countries. The foreign country maintains a constant price level of 1. Home currently has a price level of 1. Home's central bank has issued 1000 pesos, with which it bought B_1 pesos of domestic bonds and R_1 pesos of foreign reserves. Home has active financial markets but no banking system, so the entire money supply is the 1000 pesos outstanding. Assume Home can maintain its peg if and only if it holds a positive amount of foreign reserves. Home wants to maintain its peg. It also wants to be able to serve as a lender of last resort to its business community in the event of a liquidity crisis.

(a) (25pts) Suppose that B_1 is 200. On a graph with the nominal money supply on the horizontal axis and domestic credit on the vertical axis, indicate with an "X" the point where Home is. On your graph, indicate how much foreign reserves Home's central bank owns. Now suppose that Home's business community suffers a liquidity crisis, but not an insolvency crisis. While attempting to maintain its peg, Home's central bank responds as a lender of last resort, buying 500 pesos of domestic debt. On your graph, label with a "Y" the point where Home is after this purchase. How many pesos are in its money supply now? Does Home maintain its peg? Explain your analysis.

(b) (15pts) Answer again all of the questions from part (a), but suppose that B_1 is 600, not 200. Use a new graph in your analysis.

10. (a) (10pts) Define a liquidity crisis and explain how it is different than an insolvency crisis.

(b) (5pts) Explain why a central bank wants to respond to a liquidity crisis by lending.

(c) (5pts) Consider the financial crisis in Greece that played out over the semester. Is this crisis a liquidity crisis or an insolvency crisis? Explain your reasoning.

11. (5pts) Consider the Diane Rehm Show from April 25, 2012 entitled "Backlash Over Eurozone Austerity Measures." According to the panelists, why do European bankers not trust each other?