## SIMON FRASER UNIVERSITY Department of Economics

Econ 345 International Finance Prof. Kasa Fall 2010

## PROBLEM SET 2 (Solutions)

Questions 1-3. Answer True, False, or Uncertain. Briefly explain your answer. No credit without explanation (10 points each).

1. When a country has a fixed exchange rate, fiscal policy becomes less effective at stabilizing output.

FALSE. With a fixed exchange rate, fiscal policies lead to reinforcing monetary policy changes. For example, a fiscal expansion raises interest rates and appreciates the currency. To prevent currency appreciation, the Central Bank must <u>expand</u> the money supply. This causes output to increase by <u>more</u> than it would under flexible exchange rates. (See page 4 of the Lecture 7 (part B) lectures slides for a graph).

2. Sterilized intervention allows central banks to influence the exchange rate without changing the money supply.

TRUE. In principle, sterilized intervention alters the <u>risk premium</u> on foreign exchange (by altering the currency composition of investors' portfolios). So, for example, if the Central Bank wants to strengthen the currency without reducing the money supply (perhaps because it is worried that a monetary contraction would cause a recession), then it could sell foreign exchange reserves and at the same time buy domestic currency bonds. If done in the right amounts, this would produce no change in the monetary base, but it would force the public to hold more of its wealth in the form of foreign currency-denominated deposits. This makes foreign currency riskier, and causes it to depreciate (ie, the domestic currency appreciates). (See page 7 of the Lecture 8 (part A) lecture slides).

3. When a country has a fixed exchange rate, its interest rate is equal to the interest rate of the country it pegs to.

TRUE/UNCERTAIN. This is generally true, but there are (at least) three important realworld exceptions: (1) <u>Default</u> - If investors think a country might default on its debt, its interest rate will rise relative to those of the country it pegs to (just look at Ireland recently!), (2) <u>Expected Devaluation</u> - If investors think there is some chance of devaluation, then as UIP implies, domestic interest rates will rise above those in the country it pegs to (look at what happened in Hong Kong during 1998, after the Asian Crisis!), (3) <u>Capital Controls</u> -Uncovered Interest Parity (UIP) is based on the assumption that investors must be indifferent as to where they invest. However, if there are capital controls, then investors may not be able to take advantage of interest rate differences, so differences can persist (just look at China!).

The following questions are short answer. 20 points each.

4. China is becoming increasingly worried about inflation. U.S. officials have argued that China could reduce its inflationary pressures by revaluing its currency. Briefly explain the economic logic behind their argument.

A persistently undervalued currency leads to persistent current account surpluses. The mirror image of this is persistent financial account deficits, whereby China aquires foreign assets. In China's case, most of this asset acquisition takes the form of Central Bank purchases of U.S. treasury securities. Like any other open market purchase, this tends to increase the money supply and produce higher inflation. As Hume pointed out more than 200 years ago, higher domestic inflation would eventually eliminate China's current account surplus, since it would increase the relative price of Chinese goods. However, China largely sterilizes its purchases of foreign reserves, by selling domestic (yuan-denominated) assets. This not only sustains the current account surplus, and keeps China's export machine humming, it also puts a lid on domestic inflation, by preventing an increase in domestic inflation. However, these sterilization efforts have not been entirely successful, and there are growing signs of higher domestic inflation in China. The Obama administration has argued that China could easily avoid this inflation threat by allowing its currency to strengthen. This would at least slow down the inflow of foreign capital by reducing the current account surplus. The problem, of course, is that China worries that by throttling down its export machine, it faces the threat of a growth slowdown. My quess is that inflation will have to become significantly worse, or growth will have to become significantly higher, before China lets its currency appreciate by a significant amount.

5. Recently, there have been two major policy shifts in the U.S. First, Republicans regained control of the House of Representatives, and vowed to cut government spending. Second, the Fed announced an ambitious policy of "quantitative easing", which involves a \$600 billion purchase of long-term government securites. Use the DD-AA model to illustrate the combined effect of these two policies. What are the likely effects on output and the exchange rate? Can you think of any caveats to these predictions?

Quantitative easing will shift the AA curve to the right. A fiscal contraction would shift the DD curve left. The combined effect of the policies is to produce a significant depreciation of the dollar, and a modest/ambiguous effect on output and employment. The major caveat on the monetary side is that the U.S. economy is in a near liquidity trap, and it's not clear just how much the quantitative easing will affect long-term rates, and then what sort of effect this will have on exchange rates and spending. If the public expects it to be reversed relatively quickly, it might have very little impact. Also, this kind of market operation is quite unusual, and the Fed doesn't have a lot of experience with it. On the fiscal side, the major caveat concerns the way in which the public perceives government deficits. This is a controversial, and difficult to quantify, issue. Conservative economists argue that deficit-financing is not stimulative, because people anticipate the higher future taxes. If this is right, then a fiscal contraction (in the form of higher taxes) might not have much of an effect either.

6. Briefly discuss the following statement: "The IMF should not bail out countries that are hit by a speculative attack".

This is straight from the notes. See page 12 of the Lecture 9 (part A) lecture slides.