ECON4330: Questions for seminar 6.

Tuesday May, 10 2011

Question A: Comparing current account effects in different models

Compare the current account effects of a temporary increase in government expenditure in

1. the model with traded and non-traded goods in Rodseth (2000) Ch. 7.1
2. an equilibrium model of a small open economy of the kind you find in Obstfeld and Rogoff (1996) Ch 2
3. a Mundell-Fleming model with fixed exchange rate and perfect capital mobility
4. a similar model where the monetary authority pursues an inflation target instead of a fixed exchange rate

Assume that we are looking at a small open economy and, when relevant, that the nominal exchange rate is fixed. Use graphs and verbal reasoning as far as possible. You do not need to write down complete models. (Hint: Consider what happens to savings).

Question B: Inflation targeting

Consider the following model of a small open economy:

$$Y = Y(R, i - p_e) + v, \qquad Y_1' > 0, \; Y_2' < 0 \tag{1}$$

$$R = \frac{EP_*}{P} \tag{2}$$

$$i = i_* + e_e \tag{3}$$

$$e_e = p_e - p_{*,e} - \epsilon[(R - \bar{R})/\bar{R}] + u, \qquad \epsilon > 0 \tag{4}$$

$$p = p_e + \gamma \frac{Y - \bar{Y}}{\bar{Y}}, \qquad \gamma > 0. \tag{5}$$

Equation (1) is the IS-equation on reduced form, (2) defines the real exchange rate, (3) is the uncovered interest rate parity condition, (4) describes how the expected rate of depreciation depends on other variables in the model and (5) is a Phillips-curve. Y is output, R the real exchange rate, E the nominal exchange rate, P the price of home goods, P_* the price of foreign goods, i the domestic nominal interests rate and i_* the foreign interest rate. p, p_* and e are the time rates of change of P, P_* and E respectively. Subscript e is for expectations, while a bar over a variable indicates its (long-run) equilibrium value. u and v are shift variables to equations (1) and (4) respectively.

1. Explain briefly how the interest rate affects aggregate demand in this economy. Explain also the meaning of the parameter ϵ.
2. Suppose the goal of the central bank is to keep p equal to a target level $\bar{p}$. Explain what this means for how the central bank sets the interest rate. How is the nominal exchange rate then determined?
3. Suppose there is a positive shift in the expected rate of depreciation (an increase in u). Discuss what effect this will have on the interest rate and the exchange rate. What is the total effect on the expected rate of depreciation when all repercussions are taken account of.
4. The rest of the world enters a recession. Discuss what effect this will have on the home country given the behavior of the central bank.