Final Exam "International Monetary Economics II"

March 1, 2012

Question 1 (35%)

Consider a two-period model of a small open economy without investment. At the beginning of the first period, the economy is burdened with a foreign debt of $D_0 = 45$ (inherited from the past). First-period GDP is $Y_1 = 124$, second-period GDP is $Y_2 = 144$. The economy faces an exogenous interest rate on the world capital market which is constant at *20%* throughout the two periods. The foreign debt must be fully paid back by the end of period 2. Representative households choose consumption in each time period C_i $(i = 1, 2)$ so as to maximize utility $U = \ln C_1 + 0{,}9 \cdot \ln C_2$ while observing their intertemporal budget constraint.

a) Determine the intertemporal budget constraint of the economy.

b) Determine the intertemporal Euler equation of the economy.

c) How does the economy pay back its foreign debt over the two periods, and what does this imply for net exports and the current account balance in each period?

Question 2 (30%)

The simplest variant of the monetary model of exchange rate determination is based on just two equations (all variables are logs, notation as usual):

$$m_t - p_t = -\eta E_t\{p_{t+1} - p_t\}$$

$$p_t = e_t + p_t^*$$

a) Explain the theoretical content of the two equations

b) Explain why expected future fundamentals affect the current exchange rate in this model.

c) Compare and explain the differing exchange rate responses
   ca) to a permanent increase in the money supply;
   cb) to a temporary increase in the money supply (increase in t_0, reset in $T > t_0$)
   cc) to a permanent increase in the rate of growth of the money supply.
   (Draw a diagram in which you sketch the different scenarios for the money supply and the exchange rate against the time axis; no formal derivation required here).

Question 3 (10%)

When Prime Minister Margaret Thatcher deliberated whether or not to take the U.K. into the European Monetary System, her adviser Sir Alan Walters counselled against. His key argument became known as the "Walters Critique". What was his point and in which way did it later become relevant to the working of the European Monetary Union?

Question 4 (25%)

In the lecture, the graph below (by Paul De Grauwe) was used to explain the fragility of a government's solvency.

a) What is the meaning of B, B_E, B_U, C, and S, and what is the point made by the diagram?

b) How does the solvency issue differ between countries inside and outside the euro-zone?