Open economy macroeconomics Fall 2006

Assignment 6 (week 47): The Dornbusch overshooting model and PPP

1. Consider the sticky-price monetary model (the Dornbusch model) of chapter 6.7 in Rødseth (2000).

   (a) Explain the phase diagram printed below. In particular, explain the economic mechanisms underlying the $\dot{P} = 0$ and $\dot{S} = 0$ loci. What assumptions are needed for the $\dot{S} = 0$ locus to be downward sloping? Explain the arrows of motion starting from points C and D in the figure. The initial condition for the price level is given. How do we pin down the initial level for the nominal exchange rate? Draw the phase diagram for the case where the $\dot{S} = 0$ locus is upward sloping.

   (b) Assume that the $\dot{S} = 0$ locus is downward sloping. What are the long-run and the transitional effects on the nominal exchange rate, the domestic price level, output and the domestic interest rate of an unexpected permanent increase in (i) the foreign nominal interest rate? (ii) foreign output? (iii) the foreign price level? How do the effects compare to those in the flexible-price monetary model?

2. What is the PPP hypothesis? Does PPP hold in the Dornbusch model? Discuss reasons why PPP might not hold.