

Problem Set 5: Price Levels and the Exchange Rate in the Long Run

1. In our discussion of exchange rate overshooting, we assumed that real output was fixed. Assume instead that an increase in the money supply raises real output in the short run (i.e. when prices are fixed). Using the long run model without PPP which we discussed in lecture 9, show how this affects the extent to which the exchange rate overshoots when the money supply first increases? Is it likely that the exchange rate will undershoot? [Hint: in the diagram with the foreign exchange market on top and the money market in the bottom, allow the real money demand curve to shift in response to an increase in output.]
2. Suppose that Russia's inflation rate is 100 percent over one year but the inflation rate in Switzerland is only 5 percent. According to relative PPP, what should happen over the year to the Swiss franc's exchange rate against the Russian ruble?
3. Discuss why it is often asserted that exporters suffer when their home currencies appreciate in real terms against foreign currencies and prosper when their home currencies depreciate in real terms.
4. Other things equal, how would you expect the following shifts to affect a currency's real exchange rate against foreign currencies?
 - a. The overall level of spending does not change, but domestic residents decide to spend more of their income on non-traded products and less on tradeables.
 - b. Foreign residents shift their demand away from their own goods and toward the home country's exports
5. Using the four quadrant diagram (with the foreign exchange market in the top right corner, the money market in the lower right corner, PPP in the lower left etc), show the effects of a permanent increase in the money supply level. [Note: I am not asking you to show the effects of an increase in the growth rate of money like we did in class.]