EC1010: Tutorial Questions 7

March 20, 2010

1. According to the theory of *purchasing power parity*, what is the equilibrium, long-run value of the real exchange rate?

2. Suppose that the price level in a country suddenly *falls*.

   a. What implications does this change have for i) the demand for and ii) the supply of domestic currency in the foreign exchange market?

   b. According to the model of the foreign exchange market, what are the implications for the nominal exchange rate?

   c. According to the theory of *purchasing power parity*, what happens to the value of the *real* exchange rate?

3. Suppose there is only a single good in the world. The price of a good in Dublin is 50 euros. In the U.S, the same good (in terms of euros) costs 70 euros. According to the theory of *purchasing power parity*, is the dollar under or overvalued against the euro? According to the theory, what will happen to the value of the dollar in the future?

4. Figure 1 shows a graph with a) the change in various countries' nominal exchange rates against the U.S. dollar on the y-axis and b) with the difference between the countries' inflation rate and the U.S. inflation rate on the x-axis. Explain why this graph is broadly consistent with PPP theory.

5. Suppose that the money supply in a country doubles:

   a. According to the *quantity theory of money*, what happens to the price level?

   b. According to the theory of *purchasing power parity*, what happens to the value of nominal exchange rate? (Use your answer from part a. above.)

   c. According to *purchasing power parity*, what can we infer about the relationship between changes in the money supply and changes in the nominal exchange rate? (Use your answer from part b.)

6. At any point in time, the level of unemployment is higher in France than in the U.S. From this observation, what can we infer about the level of i) *cyclical* unemployment and ii) *structural* unemployment in France. Using Figure 1, estimate (very roughly) the rise in cyclical unemployment in the U.S. during the recent recession.

7. When we model the economy over the long run, we often assume that the labour supply curve is vertical.

   a. What does a vertical labour supply curve imply about labour supply?

   b. In this scenario, how can we explain the stylized fact of rising real wages over time?

   c. During the Black Death in 1348, the population of Europe was reduced by a third. Assuming the *labour force participation rate* remains fixed over time, what implication did this have for *real wages* in Europe at the time. How would your answer change if the labour force participation rate rose after the Black Death?

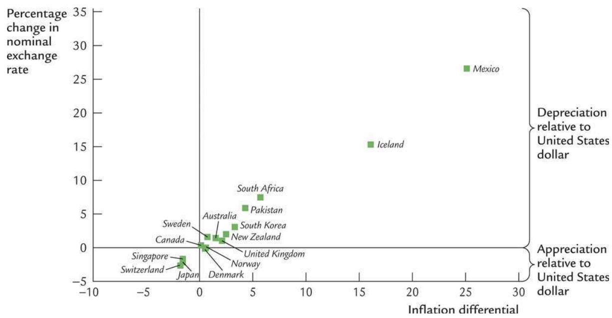

Figure 1: Changes in countries' Nominal exchange rates and inflation differential with U.S.

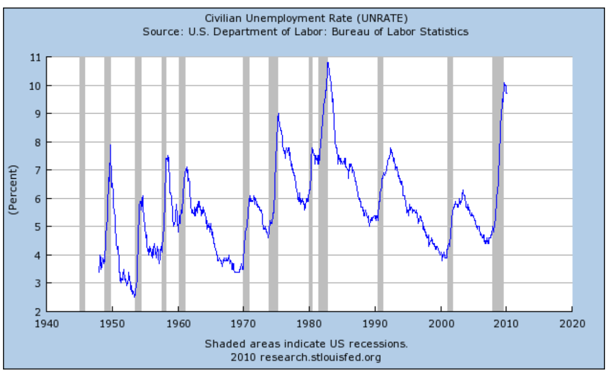

Figure 2: Unemployment rate in U.S.