

# Tutorial Questions 3

October 21, 2010

1. Assuming prices are sticky in the short run, what happens to the yield curve when the rate of money growth falls permanently? In particular, what happens to the *yield spread*; i.e., the difference between long rates and short rates?
2. Suppose inflation rises by 5% in two countries, A and B. Financial markets know A follows a Taylor rule, but are unsure of the policies pursued by B. Explain what you think happens to long-run interest rates and the price of bonds in both countries.
3. In 2005, Donald Kohn, a FED Governor wrote

*“Nothing better illustrates the need to properly account for risk premiums than the current interest rate environment: To what extent are long-term interest rates low because investors expect short-term rates to be low in the future... and to what extent do low long rates reflect narrow term premiums, perhaps induced by well-anchored inflation expectations or low macroeconomic volatility? Clearly, the policy implications of these two alternative explanations are very different.”*

What does he mean by different policy implications?

4. According to the Taylor rule, the federal funds rate should be

$$i^* = 2.5 + \alpha\pi + .5(\pi - \pi^*) + .5(y - y^*).$$

- Typically,  $\alpha = 1$ . Explain why a coefficient of  $\alpha < .5$  on inflation would not fulfill the central banks objective of stabilizing inflation when it rises.
- Suppose the central bank intervenes to maintain the level of the nominal exchange rate at some value  $\bar{e}$ . By doing this, the banks hopes to keep the exchange rate at a level that will increase the current account. Modify the Taylor rule to incorporate this objective.

5. Given that economists believe a Taylor rule represents optimal monetary policy, what are the implications of the ECB following a Taylor rule (using average inflation rates and average output gaps across the eurozone)?
6. Ireland currently “needs” deflation to depreciate the real exchange rate. What implications does deflation have for the banking system and the credit channel of monetary policy?
7. What are the implications for the credit channel of having debt denominated in foreign currencies?
8. Suppose two countries,  $A$  and  $B$ , are identical in every respect, but the exchange rate varies. If the short run nominal rate is 3 in  $A$  and 5 in  $B$ , should people invest in country  $B$ ?
9. The *forward rate*  $f_2$  is the short-run rate that you can be *guaranteed* of next year (say). If a two year bond pays  $i_{2t}$  and today’s short-run rate is  $i_1$ , find an expression for the next year’s forward rate  $f_2$ .