

## Session 2: Key concepts and monetary model

### Key concepts

1. Sometimes interest rates and the exchange rate move in the same direction (for example, during much of the 1970's ) while at other times they move in opposite directions (for example, during the early 1980's). How can this be explained?
2. Why have average real interest rates in Germany been lower than those in Belgium during the last 15 years?
3. The line of the term structure of interest rates for France lies above that of Germany but the distance between them decreases with maturity. What does this imply for exchange rate changes?
4. Suppose that you observe an increasing slope in the line of the US term structure of interest rates. You infer that
  - The USD will depreciate if the foreign line is decreasing
  - The USD will appreciate if the foreign line is increasing
  - The USD will appreciate if the foreign line is decreasing
  - We do not have enough information to draw an inference
5. Suppose that the current spot exchange rate,  $e$ , is equal to the one month forward rate,  $f$  (i.e.,  $e = f$ ). Let interest rates in the home country go down. Describe the effect on  $e$ ,  $f$ , and  $e - f$ .
6. What would be more damaging to the hypothesis of market efficiency: the violation of *covered* or of *uncovered* IRP?
7. The inflation rate is 3% in Frankia and 9% in Zappia. If PPP holds, then one should expect Frankia's exchange rate to
  - Appreciate by 12%
  - Depreciate by 6%
  - Depreciate by 3%
  - Appreciate by 6%

8. If the U.S. inflation rate is 3% and the German inflation rate is 2% and the USD depreciates by 2% then
- The DEM is overvalued
  - The DEM is undervalued
  - The USD is overvalued
  - We cannot tell
9. If domestic and foreign goods are perfect substitutes and prices are perfectly flexible then the variability of the exchange rate relative to the variability of relative national inflation rates will be:
- Higher
  - Lower
  - Equal
  - Cannot tell
10. Suppose that at the end of 1999 you observed that the 12-month interest rate on bonds in Euroland was 3.2 percent while the interest rate on Swiss bonds of the same maturity was only 2.1 percent. At that date, you knew that the 1999 annual inflation rates for Euroland and Switzerland were 1.1 and 0.8, respectively. Should you have bought Euroland bonds?
11. Can interest rate parity hold if PPP does not hold?

### **The monetary model**

12. Consider a small economy in a world in which foreign and domestic prices are perfectly flexible, there is PPP and foreign and domestic assets are perfect substitutes. Start from the situation in which the level of the money supply is expected to remain constant over time.
- a) Perform the following experiments: What is the effect on today's exchange rate if the level of today's and all future money supplies will be higher by 1%? What is the effect on today's exchange rate if the growth rate of today's and all future money supplies increase by one percent?
- b) What is meant by the expression 'magnification effect'?

- c) What are the effects of the two events under a) on the time paths of the money supply, the domestic price level, the (equilibrium) exchange rate and the real money supply?
13. \* If there is a downward shift in the demand for CHF because of increased use of credit cards and there is no such development in, say Russia. What is the effect on the CHF-RUR exchange rate?
14. Which of the following events should make the CHF to appreciate in the framework of the monetary model of exchange rate determination?
- a rise of the Swiss money supply
  - the European Central Bank (ECB) rising interest rates
  - an unexpected decline in the Swiss unemployment rate implying strong economic growth
  - rising inflation rate in Euroland
  - none of the above
15. What are the main advantages and the main shortcomings of the simple monetary approach?