

## Homework 3

due: Thursday, April 1, in class

### **Problem 1:** Portfolio Balance Model

- a) The portfolio approach assumes that domestic and foreign bonds are imperfect substitutes. List reasons for this assumption and explain.
- b) Analyze a monetary expansion in this model. What are the immediate effects, the short-run real effects, and the long-run effects. What is the reason the exchange rate overshoots in this model?
- c) Consider the relationship between the current account and the exchange rate. How do the Keynes-Mundell-Fleming framework and the portfolio differ in their interpretation of this relationship?

### **Problem 2:** Efficient Market Hypothesis

- a) Explain the efficient market hypothesis. Derive the equation  $fp_t = \Delta s_{t+k} + \epsilon_{t+k} + \lambda_t$ .
- b) Simulate your own random walk, i.e. use a random generator to generate 5 series of 20 observations each. Compare the series you obtain to time paths of actual exchange rates.
- c) How have people tested the equation you derived in a)? What has been their conclusion. Discuss different explanations that have been offered and feel free to formulate your own.