Seminar in macroeconomics – Mundell-Fleming model, 11th week

1. ☺ How would Euro adoption in the Czech Republic change the effectiveness of monetary and fiscal policies compared to the current situation?

2. ☺ In autumn 1992, Great Britain exited the European Monetary System, where its members had to keep their exchange rates fluctuations in predetermined limits. Explain the advantages and disadvantages of such a step.

3. ! Use the Mundell–Fleming model to predit what would happen to aggregate income, the exchange rate, and the trade balance under both floating and fixed exchange rates in response to each of the following shocks:

a) A fall in consumer confidence about the future induces consumers to spend less and save more.
b) The introduction of a stylish line of Toyotas makes some consumers prefer foreign cars over domestic cars.
c) The introduction of automatic teller machines reduces the demand for money.

4. ☺ Suppose the government of a small open economy decides to subsidize the export of agricultural production. Use the Mundell-Fleming model to analyze the short-term effect of such a policy on the exchange rate and real GDP if the country maintains

a) a floating exchange rate.
b) a fixed exchange rate.

5. ! Consider the situation of Greece, where fiscal instability led to an increase in risk premiums on interest rates. Use Mundel–Fleming model to analyze the situation.

a) Suppose first a hypothetical situation that Greece has its own currency—the drachma.
b) Greece maintains a fixed exchange rate (has Euro).

6. ! A small open economy with a floating exchange rate is in recession with balanced trade. If policymakers want to reach full employment while maintaining balanced trade, what combination of monetary and fiscal policy should they choose?

7. ! If a small open economy with a floating exchange rate is in recession, what automatically happens over time with its balance of trade, exchange rates and domestic products?

8. ☺ Hurricane sank a fleet of merchant ships in a small open island economy. Those ships were the main export article of the economy. Suppose that the economy produces potential output and maintains a floating exchange rate.

a) If the government does not respond, what will be the impact on output, trade balance and the exchange rate in the short run?
b) Should the government intervene in this situation? If yes, what kind of policies would you recommend?
c) How would your answers change if the country maintained a fixed exchange rate?

9. ☺ Mundel–Fleming model takes the world interest rate r^* as an exogenous variable. Let's consider what happens when this variable changes.

a) What might cause the world interest rate to rise?
b) In the Mundell–Fleming model with a floating exchange rate, what happens to aggregate income, the exchange rate, and the trade balance when the world interest rate rises?
c) In the Mundell–Fleming model with a fixed exchange rate, what happens to aggregate income, the exchange rate, and the trade balance when the world interest rate rises?

10. ! Explain why monetary restriction in a small open economy with fixed exchange rates does not affect real income. Describe what happens to the money market and foreign exchange market.

11. ! Explain what happens to aggregate income, the exchange rate, and the trade balance under fixed exchange rate in response to each of the following changes:

a) When taxes are raised.
b) A fall in investor confidence leads to a reduction in domestic investment.
c) The demand for domestic export increases suddenly.
d) A rise in domestic prices due to a bad harvest.

12. ☺ Do you think that the United States and Canada would benefit from the monetary union? Why or why not? Which country would benefit more/would be harmed less? Would Poland and the Czech Republic benefit from the creation of a monetary union?

13. ! Business executives and policymakers are often concerned about the competitiveness of American industry (the ability of U.S. industries to sell their goods profitably in world markets).

a) How would a change in the nominal exchange rate affect the competitiveness in the short run when prices are sticky?
b) Suppose you wanted to make domestic industries more competitive but did not want to alter aggregate income. According to the Mundell–Fleming model, what combination of monetary and fiscal policies should you pursue?

14. ☺ Suppose that higher income implies higher imports and thus lower net exports. That is, the net exports function is $NX = NX(e, Y)$. Examine the effects in a small open economy of a fiscal expansion on income and the trade balance under the following.

a) A floating exchange rate.
b) A fixed exchange rate.

How does your result compare to the situation when net exports depend only on the exchange rate *e*.

15. ☺ Suppose money demand depends on disposable income, so that the equation for the money market becomes $M/P = L(r, Y\text{-}T)$. Analyze the impact of a tax cut in a small open economy on the exchange rate and income under both floating and fixed exchange rates.

16. ☺ Suppose that the price level relevant for money demand includes the price of imported goods and that the price of imported goods depends on the exchange rate. That is, the money market is described by $M/P = L(r, Y)$, where $P = \lambda P_d + (1\text{-}\lambda)P_f/e$. The parameter λ is the share of domestic goods in the price index P. Assume that the price of domestic goods P_d and the price of foreign goods measured in foregn currency P_f are fixed.

a) Suppose that we graph the LM* curve for given values of P_d and P_f (instead of the usual P). Is the LM* curve still vertical? Explain.
b) What is the effect of expansionary fiscal policy under floating exchange rates in this model? Explain. Contrast with the standard Mundell–Fleming model.
c) Suppose that political instability increases the country risk premium and, thereby, the interest rate. What is the effect on the exchange rate, the price level, and aggregate income in this model? Contrast with the standard Mundell–Fleming model.

17. ☺ Fears of deflation and near-zero interest rates prompted the CNB to intervene in the foreign exchange market. Describe the intervetion of the central bank. Use the M-F model and a simple AS-AD model to analyze this situation (Assume that the economy was below potential). Can this intervention be successful?