

Retake Exam “International Monetary Economics I”

August 21, 2018

Question 1 (30%)

Greece and Turkey are two countries that have relied on large-scale capital inflows to sustain domestic demand for a long time. In both cases, foreign lending eventually came to a sudden stop – in 2010 in the case of Greece, in 2018 in the case of Turkey.

- a) In which major way do the two episodes differ?

Turkey does have their own central bank, while Greece is part of a currency union.

- b) How is the difference related to the respective exchange-rate regimes of the two countries, and how do you expect the impact of the sudden stops on the real economy to differ in the two cases?

Greece being part of a currency union has a fixed exchange rate w.r.t. some of its main trading partners and Greece economic development have only a marginal effect on the euro exchange rate. Moreover, Greece is forced to take on debt in a foreign currency, which makes them prone to sudden stops.

Turkey has a flexible exchange rate and can issue debt in their own currency. In case of a sudden stop, the central bank should be able to provide enough liquidity to cushion the effect. Moreover, the Turkish Lira should depreciate and, thus, increase competitiveness and net exports, which would stimulate the economy.

(In reality Turkish debt is as well denominated in a foreign currency. Therefore, the depreciation of the TLY led to an increase in the debt burden of Turkish businesses. A sudden reversal of the trade balance must be achieved. Greece, on the other hand, saw rising interest rates due to the sudden stop but a less abrupt change in the trade balance was needed due to being part of a currency union.)

Question 2 (40%)

The basic short-run model of a small open economy with flexible exchange rates is made up of the following 5 equations:

$$\begin{aligned}(1) \quad y_t &= b_0 - b_1 r_t + b_2 q_t + b_3 g_t + b_4 y_t^* & (2) \quad m_t - p_t &= c_0 + c_1 y_t - c_2 R_t \\(3) \quad r_t &= R_t - (p_{t+1}^e - p_t) & (4) \quad q_t &= e_t - (p_t - p_t^*) \\(5) \quad R_t &= R_t^* + (e_{t+1}^e - e_t)\end{aligned}$$

a) Name the endogenous variables that are determined by the model.

Short-run endogenous variables: $y_t, r_t, q_t, R_t, p_{t+1}^e, e_t, e_{t+1}^e$.

b) Compute the effects of a temporary increase in government spending.

$$\begin{aligned}dp_{t+1}^e &= de_{t+1}^e = 0 \\dy &= \frac{b_3}{1 + c_1/c_2(b_1 + b_2)} dg \\dr &= dR = \frac{c_1 b_3}{c_2 + c_1(b_1 + b_2)} dg \\dq &= de = -\frac{c_1 b_3}{c_2 + c_1(b_1 + b_2)} dg\end{aligned}$$

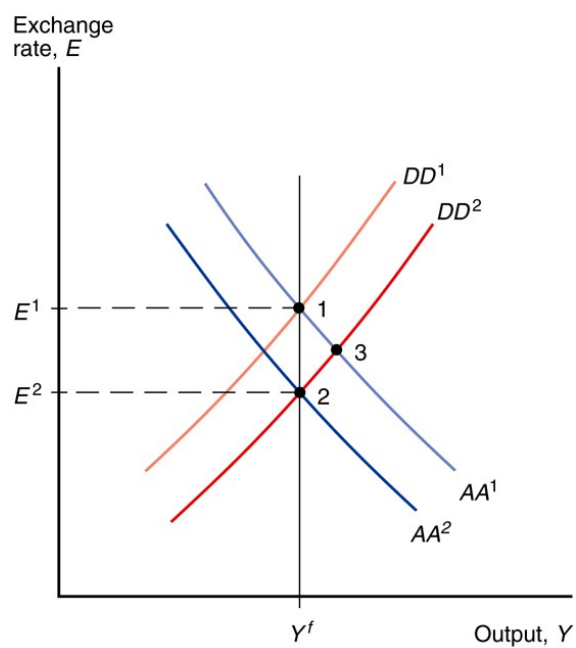
c) Compute the effects of a permanent increase in government spending.

$$\begin{aligned}de_{t+1}^e &= -\frac{b_3}{b_2} \cdot dg_t \\de_t &= de_{t+1}^e \\dq_t &= de_t\end{aligned}$$

All other variables remain unchanged.

d) Illustrate the differences between cases b) and c) in a DD-AA diagram.

In case b) we move to point 3 while in case c) we move to point 2 in the diagram.



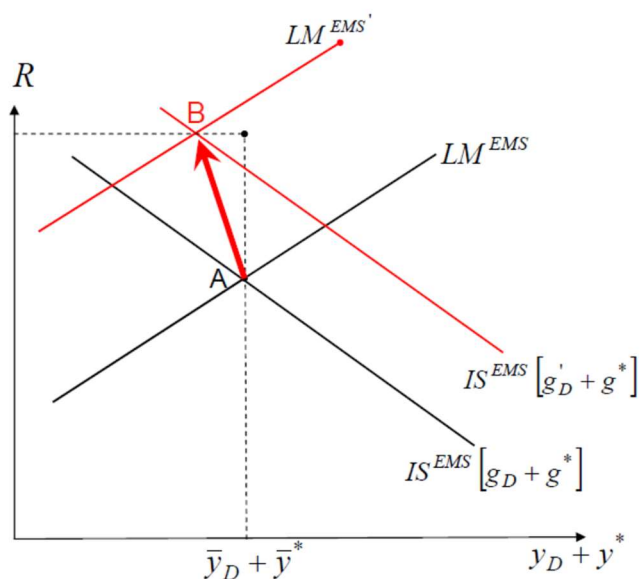
Question 3 (30%)

In 1992, the European Monetary System (EMS) underwent a major crisis.

- a) Explain the macroeconomic developments that led to the crisis using a symmetric 2-country model.

Initially the two economies are at point A. Due to a domestic boom in Germany the aggregate IS-curve shifts upwards. Because the Bundesbank's goal is $\bar{y}_D = 0$ they decrease money supply. Due to the fixed exchange rate regime the other central banks have to follow to keep interest rates in line with the Bundesbank's interest rate (due to UIP).

The aggregate EMS area



- b) Would the same macroeconomic developments have played out differently if the European Monetary Union had already existed at the time?

The Bundesbank was conducting monetary policy suited for the needs of the German economy only. Therefore, they probably increased interest rates higher than the optimal level for the aggregate level. The ECB would have increased interest rates as well, but only to the level where the aggregate output gap would be closed again.