Economics of European Integration

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Problem Set 9

References: BW (6.ed) The Economics of European Integration Ch. 13 & 15

Exercise 1: The Macroeconomics of Monetary Integration

The impossible trinity principle reveals crucially important implications for monetary and exchange rate policy strategies. It asserts that governments must make coherent choices regarding the exchange rate regime, the use of monetary policy and the capital mobility regime. An important implication is that the central bank cannot simultaneously control the interest rate and the exchange rate and vice versa. This logic is depicted in Figure 1.

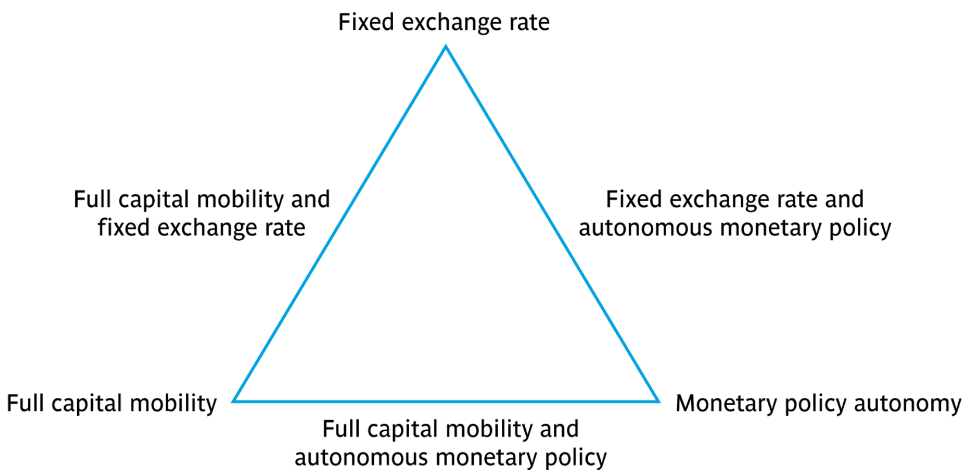

Figure 1: The Impossible Trinity

a. With the help of figure 1 explain — starting from any of the triangles sides — why it is that only two of the three goals can be fulfilled at the same time.

b. Explain the concept of interest rate parity. Drawing on your results in the previous question, why is it important in explaining the impossible trinity?

c. Explain the concept of purchasing power parity. How is it related to the impossible trinity?

d. Now, consider a country fully integrated in international financial markets, deciding on an exchange rate regime. Present graphically via the $IS - MP - IRP$ framework the different outcomes it may face with the regimes considered.

e. In addition to monetary policy, governments can use fiscal policy to influence business cycles, i.e. booming and stagnating periods. How does it affect general equilibrium under different exchange rate regimes?

Exercise 2: Optimum Currency Areas

When countries form a currency union, simple macroeconomic principles must work in a way to balance its effects between member countries. This is especially tricky if countries are very different w.r.t. wealth, industrial structure, preferences, etc, or shocks that hit member countries asymmetrically.

a. What role did the impossible trinity play in the process of European monetary integration?

b. Consider a currency union with two members, Germany and Portugal. Assume that Portugal is hit by a positive demand shock, but not Germany. Explain graphically, how the central bank can handle the situation.