MONETARY POLICY
Part 1: Basic Macroeconomic Concepts
Exercise Session 3: The Short Run
The IS-MP-PC Model

TASK 1: The Phillips Curve

a) What is the basic intuition behind the Phillips curve as in the equation below?

$$\pi_t = \pi_t^e + \gamma\,(y_t - y^*) + \varepsilon_t^\pi$$

b) Why is the long-run Phillips curve a vertical line?

c) Which economic principle do you see here?

TASK 2: Aggregate demand and the IS curve

a) Assume a neoclassical consumption and investment demand function. How are current and future consumption as well as investment demand affected by a decrease in the nominal interest rate?

b) What is the basic intuition behind the IS curve as in the equation below?

$$y_t = y_t^* - \alpha(\underbrace{i_t - \pi_t}_{r_t} - r^*) + \varepsilon_t^y, \quad \alpha > 0$$

TASK 3: Demand and Supply Shocks in the IS-PC Model

d) On which assumptions does the outcome of an aggregate demand shock depend?

e) Construct a table mapping the four possible scenarios following a positive aggregate demand shock. List the necessary behavioral assumptions, the movements of the IS and Phillips curves as well as the effect on inflation and output.

f) What trade-off does the central bank face when responding to an aggregate supply shock?