
1. Within the IS/LM-model the following functions are given (assume a price level of $p=1$):

$$C(Y) = 5 + 0,75Y \quad I(i) = 5 - 100i \quad G = 5 \quad L(Y, i) = 2Y - 200i \quad \frac{M}{p} = 50$$

Y := income; i := interest rate; M := nominale amount of money; G := government expenditure
 $C(Y)$:= consumption; $I(i)$:= Investment; $L(Y, i)$:= money demand

- (a) Show formally, that average consumption is falling with increasing income.
- (b) Determine the IS-curve and the LM-curve.
- (c) Determine equilibrium income und interest rates.
- (d) Determine the increase of equilibrium income if government expenditure is increasing by $\Delta G = 1$? Compare this increase with the increase in the pure commodity market model without the dependence of investments on interest rates and explain the difference.
- (e) Suppose the central bank increases the nominal amount of money by $\Delta M = 10$. What is than the change in equilibrium income and interest rates?
- (f) Explain graphically, why starting from the pure commodity market model over the IS/LM-model to the AS/AD-model the impact of fiscal and monetary policy (only within IS/LM and AS/AD-model) becomes less.
- (g) Support your calculations with diagrams.