

Problem 1

Basic concepts: IS - LM

- a) How do we derive IS and LM curves? (show full derivation)
- b) Which variables are endogenous and which variables are exogenous?
- c) Let's say that:
Nominal money in the economy is 100
Price level is 2
Whenever interest rate increases by 1% (use 1, not 0.01!!!) money demand *changes* by 0.5, and whenever income increases by 1, money demand *changes* by 100.
 - Derive the LM curve and plot it
- d) The IS equation could be written: $Y = C + I + G$.
Let's say that, $C = 0.8(Y - T)$, $I = 100 - 0.05r$, $G = 200$, $T = 200$
 - If government expenditure increases by 10 units, which way IS curve shifts and by how much?
 - If taxes are decreased by 10 units, which way IS curve shifts and by how much?

Problem 2

Use the IS - LM model to analyze the effects of the following shock to the economy:

- a) A banking crisis rumbles through the US. Consumers lose trust in banks and banks start taking more caution in making lending decisions.
- b) The US starts a war with Iran. (Forget your political views, think like an economist 😊)

Analyze each of the shocks separately; show what happens to the endogenous variables in the short run **and** in the long run. (What are the endogenous variables in each case?)