

Macroeconomic Policy
Exercise set 1

1. Suppose the labour supply curve is given by

$$\frac{w}{P} = g(L, r) \quad (1)$$

where the function $g(\cdot)$ is increasing in L and decreasing in the real interest rate r . This means that, at given real wage, workers are willing to supply more labour if the real interest rate is higher.

1. Such a labour supply function is common in the Real Business Cycle literature. Can you suggest the economic intuition behind it?
 2. Assuming that all other economic relationships are the same as in the lecture notes, draw the AS supply curve in the output-real interest rate space.
 3. Define the economic equilibrium and be clear about what variables are determined on what markets. Does the Classical dichotomy holds?
2. Assume that all economic relationships are the same as in the lecture notes with the only difference that now there is a wealth effect in the consumption function, i.e.

$$C = C\left(Y - T, \frac{M + B}{P}\right). \quad (2)$$

Consumption is an increasing function not only of disposable income, but also of real wealth. B , the nominal stock of bonds, is exogenous.

1. Define the economic equilibrium and be clear about what variables are determined on what markets. Does the Classical dichotomy holds?
3. Assume the IS curve has the linear form

$$Y = \bar{C} + c(Y - T) + \bar{I} - br + G \quad (3)$$

and the LM curve the linear form

$$\frac{M}{P} = kY - h(r + \pi) \quad (4)$$

where \bar{C} , \bar{I} , c , b , k and h are all positive constants. All other variables have the usual meaning.

1. Derive the equation for the AD curve.
2. Show that the AD curve is vertical if $b = 0$ or h tends to infinity.
3. Does the labour market clear in this case?