

PROBLEM SET 3

*A complete solution to problem 2 will be posted on the webpage for the course.
Problem 1 will be discussed in tutorials in week 4.*

Problem 1 (Blanchard, chp. 5)

This exercise focuses on the phenomenon known as the liquidity trap.

- (a) Suppose that the interest rate on bonds is negative. Will people want to hold bonds or to hold money? Explain.
- (b) Draw the demand for money as a function of the interest rate, for a given level of real income. How does your answer to (a) affect your answer here?
- (c) Derive the LM curve. What happens to the LM curve as the interest rate gets very close to zero?
- (d) Take your LM curve. Suppose that the interest rate is very close to zero, and that the central bank increase the nominal supply of money. What happens to the interest rate at a given level of income?
- (e) Can an expansionary monetary policy increase output when the interest rate is already very close to zero? Can an expansionary fiscal policy increase output when the interest rate is already very close to zero? Relate your answers to the issue of the effectiveness of fiscal policy and monetary policy when the LM curve is flat.

Problem 2 (Blanchard, chp. 6)

The equilibrium condition for the labour market is given by

$$F(u_n, z) = \frac{1}{1 + \mu}$$

This equilibrium condition determines the equilibrium real wage rate and the natural rate of unemployment.

(a) Draw both the wage setting equation and the price setting equation in a graph with unemployment on the horizontal axis, and the real wage rate on the vertical axis.

(b) On the same graph, show the equilibrium real wage rate and the natural rate of unemployment.

(c) Suppose that the government decides to increase employment protection (captured through the variable z). What is the effect of this policy on the natural rate of unemployment?

(d) Suppose that the parliament adopts a stronger antitrust law which aims to increase market competition in the economy (captured through the variable μ). What is the effect of this policy on the natural rate of unemployment?