# Quiz on Efficient Unemployment and Unemployment Gap

Pascal Michaillat

### Question 1

From a social perspective, what are the costs of lowering unemployment?

- A) Lowering unemployment raises the number of people out of the labor force.
- B) Lowering unemployment raises the share of workers devoted to recruiting.
- C) Lowering unemployment raises the share of workers devoted to producing.
- D) Lowering unemployment reduces the wage of employed workers.
- E) Lowering unemployment raises the wage that firms must pay their employees.
- F) Lowering unemployment has no social cost so it is efficient to bring unemployment all the way to 0%.
- G) None of the above.

## **Question 2**

From a social perspective, what are the costs of raising unemployment?

- A) Raising unemployment lowers the number of people out of the labor force.
- B) Raising unemployment increases the number of workers who are devoted to recruiting.
- C) Raising unemployment lowers the number of workers who are employed.
- D) Raising unemployment reduces the wage of employed workers.
- E) Raising unemployment lowers inflation below the 2% target.
- F) None of the above.

#### **Question 3**

Under which condition is the unemployment rate efficient in a matching model?

- A) For any wage mechanism.
- B) If wages are rigid enough.
- C) If wages are determined by Nash bargaining.

- D) If wages are determined by Nash bargaining and satisfy the Hosios condition.
- E) There is no wage mechanism that ensures efficiency.

## **Question 4**

Consider a model with a Beveridge curve. Let  $\epsilon$  be the elasticity of the Beveridge curve,  $\kappa$  be the recruiting cost, and  $\zeta$  be the social value of nonwork. Which condition is satisfied by labor market tightness  $\theta$  when the labor market operates efficiently?

- A)  $\theta = (1 \zeta)/\kappa$
- B)  $\theta = [(1 \zeta)\kappa]/\epsilon$
- C)  $\theta = [(1 \zeta)\epsilon]/\kappa$
- D)  $\theta = \beta$ , where  $\beta$  is workers' bargaining power
- E)  $\theta = (1 \zeta)/(\kappa \epsilon)$
- F)  $\theta = (\kappa \epsilon)/(1 \zeta)$
- G) None of the above

## **Question 5**

What are the characteristics of the unemployment gap in the United States?

- A) The unemployment gap is always about zero.
- B) The unemployment gap is generally positive and sharply procyclical.
- C) The unemployment gap is generally negative and sharply procyclical.
- D) The unemployment gap is generally positive and sharply countercyclical.
- E) The unemployment gap is generally negative and sharply countercyclical.
- F) It is not possible to measure the unemployment gap.

### **Question 6**

Given the social costs and benefits of unemployment, would it be optimal for the government to bring the unemployment rate all the way to 0%?

- A) In general yes; but no if the social value of unemployment is zero
- B) In general no; but yes if recruiting costs are zero
- C) Always no
- D) Always yes
- E) In general no; but yes if the social value of unemployment is zero

#### **Question 7**

According to the work of Hosios (1990), which condition must be satisfied for the labor market to operate efficiently?

- A)  $\beta = \eta$ , where  $\beta$  is workers' bargaining power and  $\eta$  is the elasticity of the matching function with respect to unemployment.
- B)  $\beta = 1 \eta$ , where  $\beta$  is workers' bargaining power and  $1 \eta$  is the elasticity of the matching function with respect to vacancies.
- C)  $\theta = 1$ , where  $\theta$  is labor market tightness.
- D) The surplus received by firms = the surplus received by workers.
- E) None of the above.

#### **Question 8**

Consider a matching model with linear production function, Cobb-Douglas matching function, and Nash bargaining. Let  $\eta$  be the elasticity of the matching function with respect to unemployment and  $1-\eta$  the elasticity of the matching function with respect to vacancies. Let  $\beta$  be workers' bargaining power and  $1-\beta$  be firms' bargaining power. Let r be the recruiting cost, measured in recruiters per vacancy. Let z be the social value of nonwork relative to work: z=0 means that unemployed workers do not contribute to social welfare; z=1 means that unemployed workers contribute as much to social welfare as employed workers. Which of the following statements are correct?

- A) The efficient labor market tightness is increasing in  $\eta$ .
- B) The efficient labor market tightness is decreasing in  $\eta$ .
- C) The efficient labor market tightness is increasing in z.
- D) The efficient labor market tightness is decreasing in z.
- E) The efficient labor market tightness is increasing in r.
- F) The efficient labor market tightness is decreasing in r.
- G) The efficient labor market tightness is increasing in  $\beta$ .
- H) The efficient labor market tightness is decreasing in  $\beta$ .