ECON 2080, part 1 Spring 2022 Pascal Michaillat Brown University

# % Quiz 9: Policies

## **Question A**

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?

1. 
$$\theta = (1 - \zeta)/\kappa$$

2. 
$$\theta = [(1 - \zeta)\kappa]/\epsilon$$

3. 
$$\theta = [(1 - \zeta)\epsilon]/\kappa$$

4.  $\theta = \beta$ , where  $\beta$  is workers' bargaining power

5. 
$$\theta = (1 - \zeta)/(\kappa \epsilon)$$

6. 
$$\theta = (\kappa \epsilon)/(1 - \zeta)$$

7. None of the above

#### **Question B**

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

- 1. The unemployment gap is always about zero.
- 2. The unemployment gap is generally positive and sharply procyclical.
- 3. The unemployment gap is generally negative and sharply procyclical.
- 4. The unemployment gap is generally positive and sharply countercyclical.
- 5. The unemployment gap is generally negative and sharply countercyclical.
- 6. It is not possible to measure the unemployment gap.

## **Question C**

The public-employment multiplier measures the change in employment when the government hires one extra worker in the public sector. Why is the public-employment multiplier always below 1?

- 1. Because an increase in public employment raises labor market tightness, which depresses private employment.
- 2. Because an increase in public employment raises wages, which depresses private employment.
- 3. Because an increase in public employment lowers labor market tightness, which depresses private employment.
- 4. Because workers employed in the public sector do not stay long on the job: there is high job separations.
- 5. The public-employment multiplier is not always below 1.

## **Question D**

Policies are often evaluated according to their bang-for-the-buck: the effect of 1 dollar of spending on employment or output. When will public employment have the largest bang-for-the-buck?

- 1. Public employment always leads to the employment of one public worker, so it always has the same bang-for-the-buck.
- 2. Unemployment is low in good times, so that is when public employment has the largest bang-for-the-buck.
- 3. The public-employment multiplier is largest in bad times, when unemployment is high, so that is when public employment has the largest bang-for-the-buck.
- 4. The public-employment multiplier is largest in good times, when unemployment is low, so that is when public employment has the largest bang-for-the-buck.

## **Question E**

Consider an unemployed worker who searches for a job with effort e. Let f be the probability to find a job per unit of effort. Let c be the consumption of the worker if she finds a job and b < c be the consumption of the worker if she does not find a job. (b is unemployment benefits.) Let v be the worker's utility function over consumption and k be the worker's disutility of search effort. Assume that v is increasing and concave while k is increasing and convex. The unemployed worker maximizes expected utility. What is the unemployed worker's problem?

- 1.  $\max_{e}(1 e \times f) \times v(c) + e \times f \times v(b) k(e)$
- 2.  $\max_{e,b,c} e \times f \times v(c) + (1 e \times f) \times v(b) k(e)$
- 3.  $\max_e e \times f \times v(c) + (1 e \times f) \times v(b) k(e)$
- 4.  $\max_e e \times f \times (v(c) k(e))$
- 5.  $\max_{e} e \times f \times (v(c) + v(b) k(e))$

## **Question F**

What happens to the optimal effort from Question E if it becomes easier to find a job (higher job-finding rate f)?

- The search effort does not change, because it is only determined by unemployment benefits.
- 2. The search effort might decrease or increase, depending on the slope of k(e).
- 3. The search effort might decrease or increase, depending on the slope of v(c).
- 4. The search effort always decreases.
- 5. The search effort always increases.

## **Question G**

Is the Baily-Chetty level of UI optimal in a matching model of the labor market?

- 1. No, except if UI has no effect on labor market tightness.
- 2. Yes, except if UI has no effect on labor market tightness.
- 3. Yes, except if labor market tightness is inefficiently high.
- 4. Yes, except if labor market tightness is inefficiently low.
- 5. No, it is never optimal.
- 6. Yes, it always optimal.

## **Question H**

It is typically believed that labor market tightness is inefficiently low in recessions. What does this property implies for the generosity of UI?

- 1. UI should be less generous than in the Baily-Chetty framework in recessions.
- 2. UI should be more generous than in the Baily-Chetty framework in recessions.
- 3. In recessions, UI should be less generous than in the Baily-Chetty framework iff an increase in UI raises tightness.

- 4. In recessions, UI should be more generous than in the Baily-Chetty framework iff an increase in UI raises tightness.
- 5. This property has no implications for optimal UI.