

八十八學年度 經濟學 系(所) 組碩士班研究生招生考試

目 總時經濟學 科號 5602 共 3 頁第 1 頁 *請在封卷【答案卷】內作答

1. (20%) Consider a business cycle theory that combines the classical IS-LM model with the belief that government purchases are productive and useful to the private sector and may affect workers' wealth position. Now under the assumption that temporary changes in government purchases are the main source of cyclical fluctuations, how well would this theory explain the observed cyclical behavior of each of the following variables? employment, the real wage, average labor productivity, investment, the price level.
2. (15%) Suppose that the government institutes a program to help unemployed workers learn new skills, find new jobs, and relocate as necessary to take the new jobs. What is the effect on the expectations-augmented Phillips curve and the long-run Phillips curve? The program is expensive, and critics argue that a cheaper way to cut unemployment would be by monetary expansion. Comment.
3. (15%) If the labor market is divided into two sectors: a primary sector, where good jobs are located, and a secondary sector, which has bad jobs. Suppose that the primary sector has a high marginal product of labor and that firms pay an efficiency wage. The secondary sector has a low marginal product of labor and no efficiency wage; instead, its real wage is determined by the equilibrium condition. Workers are alike, and all would prefer to work in the primary sector. However, workers who can't find jobs in the primary sector work in the secondary sector.

What are the effects of each of the following on the real wage, employment, and output in both sectors?
 - a. Expansionary monetary policy increases the demand for primary sector output.
 - b. Immigration increases the labor force.
 - c. There is a temporary productivity improvement in the primary sector.

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4. (25%) Consider an economy with overlapping generations of two-period lived people (i.e., in each period of time, there are young persons and old persons in the economy). People work when young, supplying one unit of labor and earning a real wage of w_t , and retire when old. The saving of the young in period t generates the capital stock that is used to produce output in period $t + 1$. The number of individuals born at time t and working in period t is N_t . Population grows at rate n so that $N_t = (1 + n)^t N_0$. Firms act competitively and use the production technology

$$y = k^\alpha, \quad 0 < \alpha < 1,$$

where y is the amount of output per worker and k is the amount of capital per worker. The utility function of an individual born at time t is

$$u(c_{1t}, c_{2t}) = \ln c_{1t} + \beta \ln c_{2t+1}$$

where c_{1t} is consumption when young and c_{2t+1} is consumption when old, and β is the discount factor.

- (1) Write down the optimization problem of an individual born at time t . What is his/her intertemporal budget constraint? Solve for the individual's saving as a function of real wage and interest rate, $s(w_t, r_{t+1})$.
- (2) Goods market equilibrium requires that investment be equal to saving in each period; i.e., $K_{t+1} = N_t s(w_t, r_{t+1})$, where K is the total capital stock of the economy. Solve for the steady state capital stock k (i.e. $k_t = k, \forall t$).
 (Hint: Solve first for the real wage and interest rate as functions of the capital stock per worker.)
- (3) Consider a fully funded social security plan that collects d_t goods from each young person, invests the contributions d_t as capital, and pays $b_t = (1 + r_t)d_{t-1}$ to the old, whose contribution was invested in period $t - 1$. Write down the first-order condition and intertemporal constraint of an individual born at time t . Show how the introduction of the fully funded social security system affects the steady state capital stock k . Explain your result.

國立清華大學 命題紙

八十八學年度 經濟學 系(所) _____ 組碩士班研究生招生考試

科目 總體經濟學 科號 5602 共 3 頁第 3 頁 *請在試卷【答案卷】內作答

5. (15%) 假設經濟不景氣，企業倒閉與跳票頻傳，而幾家銀行也瀕臨倒閉的邊緣。

(1) 某政府官員認為要防止銀行倒閉須規定銀行有雄厚的資本(淨值)，因此將銀行的資本適足率(自有資本與風險性資產包括放款與投資等的比例)提高。請闡釋這個政策可能加深景氣蕭條嗎？

(2) 假設政府擔心銀行倒閉對總體經濟的衝擊，因此允許淨值瀕臨負值的銀行繼續經營，而不令其進行清算。請闡釋這個政策可能加深景氣的蕭條嗎？

6. (10%) 中央銀行即將發行新鈔，新增 200 元和 2000 元鈔券，而未來只發行 50 元硬幣，不再發行 50 元鈔券。央行認為此舉可提高交易方便性，不致引發物價上漲。請說明你贊成或反對此論點的理由。