



May / June Examination Period 2025

ECN223: Selected Topics in Macroeconomics

Duration: 2 hours

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UNTIL INSTRUCTED TO DO SO BY AN INVIGILATOR**

Answer ALL questions

Calculators are not permitted in this examination. Complete all rough workings in the answer book and cross through any work that is not to be assessed.

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EXAM PAPERS MUST NOT BE REMOVED FROM THE EXAM ROOM

Question 1

Discuss the impact of uncertainty in income on the neoclassical model of consumption where households choose consumption intertemporally. Explain the relevance of Hall's random walk theory and its empirical evidence. You can refer to the formal elements of the model and/or graphs as appropriate to support your discussion. [10 marks]

Question 2

Consider a household that lives for two periods. Assume no initial assets and let the constant price level $P = 1$. Let w_1 and w_2 denote wages in periods 1 and 2, let i denote the interest rate and $\beta \in (0, 1)$ denote the discount factor. Assume that the household derives its utility from consumption in both periods, denoted c_1 and c_2 respectively and leisure in both periods, denoted $1 - L_1$ and $1 - L_2$ respectively where L represents labour. Finally, assume a utility function: $u(c, 1 - L) = \log(c) + \log(1 - L)$.

- Set up the household's maximisation problem and derive the first-order conditions. [10 marks]
- Derive the optimality conditions for consumption and labour supply in both periods. [5 marks]
- What is the impact of an increase in the interest rate (i) on labour supply (L_1) and consumption (c_1) in the first period? [10 marks]

Question 3

Consider the model of search frictions in the labour market where job seekers face a probabilistic wage over distribution. Each period the job seeker draws an offer of wage w for a cumulative distribution of wage offers $F(w)$. If the job-seeker decides not to accept the job offer they will get an unemployment benefit ω . The reservation wage w^R is given by:

$$w^R - \omega = \frac{\beta}{1 - \beta} \int_{w^R}^{\infty} (w' - w^R) dF(w') \quad (1)$$

- Explain what the reservation wage is and the reservation wage equation 1. You may use graphs in your explanation. [5 marks]
- Why would it be optimal for a job seeker to refuse a wage offer w above the value of unemployment benefits ω ? [5 marks]
- Describe the impact of an increase in unemployment benefits ω , or its duration, on the reservation wage, the job-finding rate, the duration of unemployment and the rate of unemployment. How does the model's result compare with the empirical evidence? You can refer to the formal elements of the model and or graphs as appropriate to support your discussion. [15 marks]

Question 4

Explain the impact of permanent and transitory real wage increases using Friedman's Permanent Income Hypothesis. Specifically discussing the impact on the marginal propensity to consume. Is there empirical evidence in favour of those implications? You can refer to the formal elements of the model and/or graphs as appropriate to support your discussion. **[20 marks]**

Question 5

Explain Ricardian Equivalence and its implications for fiscal policy and consumption after government increases taxes today but balances the budget intertemporally. How does the Ricardian Equivalence depend on the households' access to perfect financial markets and what happens if households are liquidity constrained and cannot borrow? You can refer to the formal elements of the model and/or graphs as appropriate to support your discussion. **[20 marks]**

End of Paper
