

國立高雄大學九十七學年度研究所碩士班招生考試試題

科目：總體經濟學
考試時間：100 分鐘

系所：
應用經濟學系碩士班
本科原始成績：100 分

是否使用計算機：否

1. The Mundell-Fleming Model (26%)

The central bank of a small open economy with perfect capital mobility wants to carry out an expansionary monetary policy to stimulate the economy. Answer the following questions.

- a. Suppose the economy is under a floating-exchange-rate regime. Use a proper diagram to analyze the impact of this monetary policy on aggregate income (Y), the exchange rate (e), and the trade balance (NX). (8%) (Here, the exchange rate e is defined as the amount of foreign currency that one unit of domestic currency can buy.)
- b. Ignore (a). Suppose now the economy is under a fixed-exchange-rate regime. Use a proper diagram to analyze the impact of this policy on aggregate income (Y), the exchange rate (e), and the trade balance (NX). (8%)
- c. What is the impossible trinity? Use the results you obtain from (a) and (b) to illustrate your answer. (10%)

2. IS-LM and AS-AD (24%)

Consider an economy that is hit by two shocks: a collapse in the subprime mortgage market and a dramatic increase in oil price. Answer the following questions.

- a. Use the IS-LM diagram to show the impact of the collapse in mortgage market on aggregate demand (AD) curve. (6%)
- b. Follow (a). Use the AS-AD diagram to analyze the impact of these two shocks on aggregate income and the price level in the short run. (6%)
- c. If the policymakers of the economy want to counteract the impact of the shocks on aggregate income (in other words, they want to keep the level of aggregate income unchanged), what kinds of macroeconomic policies (monetary and/or fiscal policies) should they adopt? Briefly explain your answer. (6%)
- d. If the policymakers of the economy want to counteract the impact of the shocks on the price level, what kinds of macroeconomic policies (monetary and/or fiscal policies) should they adopt? Briefly explain your answer. (6%)

3. Short Essay Questions (24%)

- a. Use the policy implications of the Phillips Curve to explain the Lucas Critique? (12%)
- b. John Keynes and Irving Fisher have different viewpoints about how people make intertemporal choices on consumption. Whose theory is in better accord with the idea of Ricardian Equivalence? Explain your answer. (12%)

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4. The Solow Growth Model (26%)

Consider an economy that can be well described by the Solow growth model with population growth but not technological progress. Suppose the economy has the following production function: $Y = K^{0.5}L^{0.5}$, where Y is the output level, K is the level of capital stock, and L is the number of workers. The production function can also be written as the following per-worker form: $y = k^{0.5}$, where $k \equiv K/L$ and $y \equiv Y/L$. Assume the depreciation rate is $\delta = 0.1$ and the population growth rate is $n = 0.05$. The saving rate of the economy is $s = 0.6$. Answer the following questions.

- a. At a certain moment, we observe that $K = 1000$ and $L = 40$ in the economy. Is the economy in the steady state at that moment? Why or why not? What is the wage rate (real wage per worker) in the economy at the moment? (8%)
- b. Ignore (a). Suppose the economy is currently in the steady state (associated with $s = 0.6$). If people in the economy want to increase the steady-state level of consumption per worker (in other words, they want to move to a steady state with a higher level of consumption per worker), should they increase or decrease their saving rate? Briefly explain your answer. (6%)
- c. Ignore (a) and (b). Suppose, again, the economy is currently in the steady state. If people in this economy want to increase the economic growth rate in the long run (in other words, they want to move to a steady state with a higher rate of economic growth), should they increase or decrease their saving rate? Briefly explain your answer. (Economic growth rate is defined here as the growth rate of output per worker.) (6%)
- d. Would your answer in (c) be different if we add technological progress to the Solow model? Explain your answer. (6%)