

國 立 清 華 大 學 命 題 紙

九十三學年度 經濟學 系(所) _____ 組碩士班入學考試

科目 總體經濟學 科號 ECON5602 共 3 頁第 1 頁 *請在試卷【答案卷】內作答

Part I: 以必要之圖解與分析回答下列三個問題:

1. (20 分) 試問在中長期, 當全部市場結清, 資本存量保持固定時, 總體之均衡的產出, 利率, 以及物價水準是怎麼決定的?
2. (15 分) 為何當經濟處於流動陷阱, 零利率邊緣, 若再遇上通貨緊縮, 即是物價持續的下跌時, 極易掉入緊縮漩渦之中, 而不易自拔?
3. (15 分) 設世界只有兩大國, 原是資本完全流動, 今其中一大國對其居民施以資本管制, 禁止國際借貸, 試問此對兩國的經常帳, 全國儲蓄, 投資, 以及國內與世界利率有何影響? (設管制前, 該國的資本與金融帳部位是處於盈餘的狀態.)

九十三學年度 Economics 系(所) _____ 組碩士班入學考試
 科目 總論經濟學 Macroeconomics 科號 5602 共 3 頁第 2 頁 *請在試卷【答案卷】內作答

Part II: (50 points)

1. (20 points) True/False/Uncertain-Explain using Equations, Graphs and Words, no points without correct explanations)

The following are two figures about country Magicland's stock price index, interest rate and exchange rate shown. Three true or false questions related to these plots are placed after them.

Figure 1-1: Magicland's Stock Price Index and Interest Rate
 (Stock Price Index) (%)

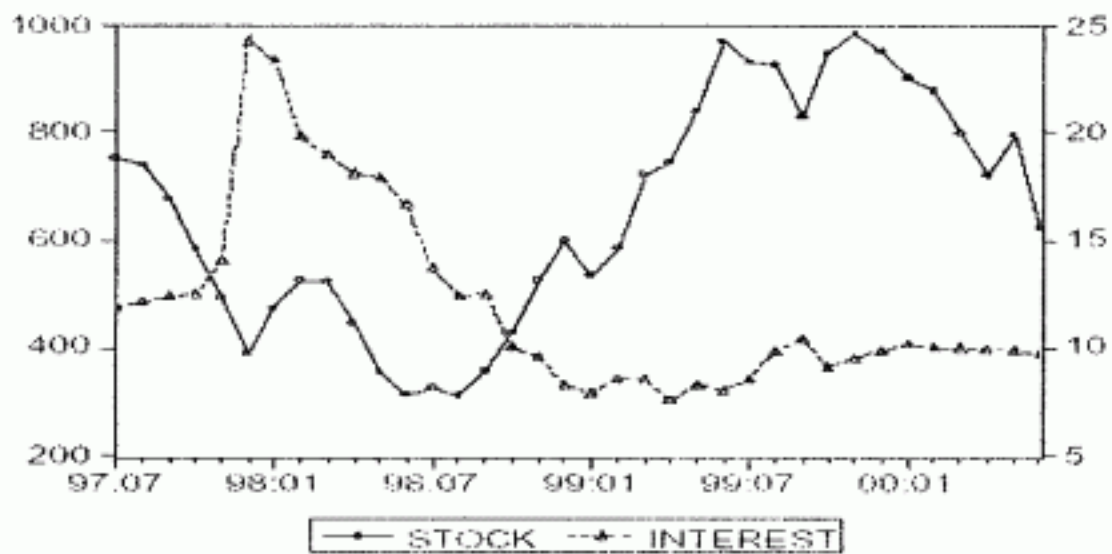
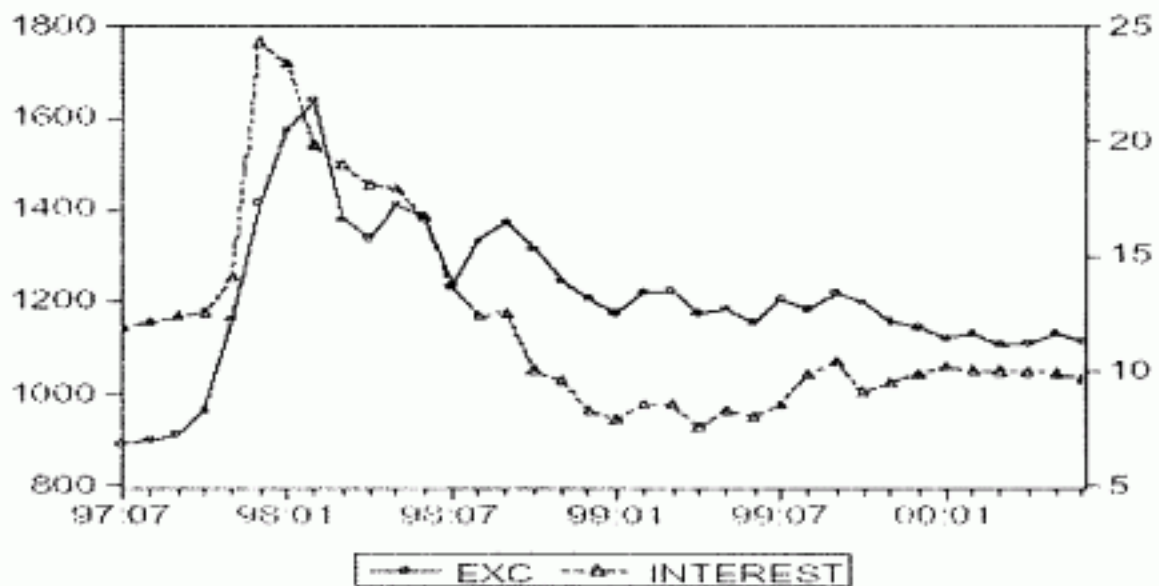


Figure 1-2: Exchange Rate and Interest Rate
 (Magicland's currency/dollar) (%)



Source: Magicland's central bank, *Monthly Economic Survey Bulletin*, various issues.

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九十三學年度 Economics 系(所) 組碩士班入學考試
科目 總體經濟學 Macroeconomics 科號 5602 共 3 頁第 3 頁 *請在試卷【答案卷】內作答

- (i) (5) Figure 1-1 implies that Magicland is in a bear market when her central bank uses a loose monetary policy.
- (ii) (5) The interest parity condition can explain the relationship between Magicland's interest rate and exchange rate as shown in Figure 1-2.
- (iii) (10) These two figures suggest that when the stock market is open to foreign investors then the autonomy of monetary policy under the flexible exchange rate regime is fully guaranteed.
2. (30 points) Many demographers argue that population growth of Taiwan will reduce to a very low rate, for example zero, in twenty first century. For the twentieth century, the population growth has been approximately equal to two percent per year. Using the Solow model without technology progress to answer the following questions. We suppose that rate of depreciation for capital is $\delta = 0.1$, $K = 2.5Y$, the saving rate is $s = 0.30$, and capital receives 30% of GDP. Production function is assumed to be Cobb Douglas ($Y = L^{0.7}K^{0.3}$).
- (i) (10) Compute the steady state levels of marginal productivity of capital for both twentieth century and the twenty first century.
- (ii) (10) Forecast the effects of this fall in population growth rate on total output and output per worker.
- (iii) (10) Suppose a new internet revolution will also occur in a few decades. The revolution is expected to improve the future total factor productivity in Taiwan. We may predict that in the 21st century our technological progress will speed up from zero to an annual growth rate of 2%. Forecast the effects of this increase in growth rate of total factor productivity combined with the fall in population growth rate on total output and output per worker.