Macroeconomics, Part IIA
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International Macroeconomics Supervision 2

Exchange Rates and International Finance

Section A

A.1 In the flexible price monetary model, a decrease in the growth rate of domestic money supply leads to an immediate downward jump in the domestic price level and a depreciation of the domestic currency because of a decrease in the domestic nominal interest rate. True or false? Explain.

A.2 According to the Balassa-Samuelson effect, a drop in relative productivity growth in the tradable goods sector leads to a real depreciation. True or false? Explain.

A.3 When there is imperfect substitutability between domestic and foreign assets, an unanticipated increase in the domestic money supply could reduce the domestic nominal interest rate while keeping the nominal exchange rate fixed. True or false? Explain.

Section B

B.1 Suppose the world consists of two countries, Home and Foreign. There is perfect international capital mobility between the two countries, and Home and Foreign assets are perfect substitutes. The rate of return for a Home investor on Home and Foreign assets is H_s and F_s, respectively, where $s = 1, 2$ denotes the state of nature. State 1 occurs with probability q and state 2 with probability $1 - q$. The Home investor allocates her wealth W to maximize expected utility

$$U = qu\left(C_1\right) + \left(1 - q\right) u\left(C_2\right)$$

where $u\left(C\right) = -e^{-C}$, $C_s = \left[\alpha H_s + \left(1 - \alpha\right) F_s\right] W$ is consumption in state s, and α is the share of Home assets in the Home investor's portfolio. Suppose that $W = 1$, $H_1 = 3$, $H_2 = 1$, $F_1 = 1$ and $F_2 = 2$, and $q = 1/3$. [Tripos 2008]

(a) Compare the expected rates of return on Home and Foreign assets. How do they depend on the probability q of state 1?

(b) Derive the optimal portfolio share α from the first order condition. Explain intuitively whether it is desirable for the Home investor to engage in international portfolio diversification.

(c) Suppose now that the probability of state 1 increases. Explain how this would affect the optimal portfolio share α and the desirability of international portfolio diversification.

Section C

C.1 The European Monetary Union is now 10 years old. Discuss the economic criteria that determine whether it has been an optimum currency area. [Tripos 2009]

Main reading

- Krugman, Obstfeld and Melitz (2011), *International Economics: Theory and Policy* (9th edition), chapter 18-21.

Supplementary references

- De Grauwe (2012), *The Economics of Monetary Union.*
- De Grauwe (1996), *International Money: Post-War Trends and Theories* (2nd edition), chapter 3-5, 7-8
- Feenstra and Taylor (2011), *International Economics*, chapter 14, 16-17, 19-22
- Sachs and Larrain (1993), *Macroeconomics in the Global Economy*, chapter 10, 13 and 21