

International economics (2016–2017)
Final exam
Part on international macroeconomics

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23 January 2017, 12.00

Surname: _____

First name: _____

ID or passport number: _____

Group: _____

Question	Points	Obtained
1	8	
2	8	
3	8	
4	8	
5	8	
Total	40	

Instructions

The exam consists of **five questions**.

In total, it is possible to obtain up to **40 points**.

Duration of exam: **1 hour** (= 1.5 minutes per point or 12 minutes per question).

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1. (a) What does Y stand for in the following equations? [3]

1. $Y = C + I + G,$

2. $Y = C + I + G + TB,$

3. $Y = C + I + G + CA.$

(b) Show that: [2]

$$S - I = -FA. \quad (1)$$

Interpret this equation in economic terms.

(c) State three countries where currently $S > I$ and three countries where currently $S < I$. [3]

Total of question 1: [8]

2. (a) What is the sum of a geometric series $1 + a + a^2 + a^3 + \dots + a^m$? What happens to the sum as m goes to infinity? [1]
- (b) Derive the present discounted value of a constant income stream \bar{Y} , or $PV_1(\bar{Y})$? Hint: Let $a = 1/(1 + r)$. [2]
- (c) Let $r = 0.05$ and $\bar{Y} = 100$ now and forever. What value does $PV_1(\bar{Y})$ take? [1]
- (d) How are W_0 , $PV_1(Y)$, $PV_1(C)$, $PV_1(I)$ and $PV_1(G)$ related to each other according to the long-run budget constraint? [2]
- (e) If $W_0 = 0$, Y_t is constant now and forever, C_t is constant now and forever (consumption smoothing), $I_1 > 0$, $I_2 = I_3 = \dots = 0$ and $G_t = 0$ for all t , will CA_1 be greater or smaller than zero? Explain very briefly. [2]

Total of question 2: [8]

3. Consider the currency flow model and suppose that the central bank of the home country wants to stabilize the real exchange rate.

(a) Why might the central bank be interested in a stable real exchange rate? [2]

(b) Derive the equation that determines how many official reserves, $b^{\bar{H}\bar{F}}$, the central bank has to buy and sell. [4]

(c) Why might it be impossible for the central bank to keep a stable real exchange rate when there is a large current account deficit or there are large capital outflows? [2]

Total of question 3: [8]

4. (a) Define the nominal exchange rate, S_t , in indirect terms. [1]
- (b) Define the real exchange rate, Q_t . [1]
- (c) Use the definition of the real exchange rate to derive a relationship between the rate of appreciation of the real exchange rate, the rate of appreciation of the nominal exchange rate, the domestic inflation rate and the foreign inflation rate. [4]
- (d) Use the equation you have just derived to explain why a persistently high domestic inflation rate can pose a problem for a member of the eurozone. [2]

Total of question 4: [8]

5. (a) Why do currency crises occur according to the monetary model? The answer may be short, but please be as technical as you can in your response. [3]

(b) Why do currency crises occur according to the currency flow model? The answer may be short, but please be as technical as you can in your response. [3]

(c) State two currency crises that provide evidence in favour of the currency flow model. [2]

Total of question 5: [8]

