International macroeconomics and finance (postgraduate course) 2017–2018 — Final exam

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9 April 2018, 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. The following questions are based on the "intertemporal approach to the current account".

    (a) State the representative agent's budget constraint for the period 1 and rearrange it to derive   [2]
    the current account of period 1, CA_1.

    (b) Explain intuitively why, according to the intertemporal approach, consumption is more   [3]
    or less stable between periods 1 and 2.

    (c) Explain intuitively why, according to the intertemporal approach, a temporary, positive   [3]
    income shock in period 1 leads to a current account surplus in that period.

    Total of question 1: [8]

2. Consider the model of the "new rule to the current account" with logarithmic utility. In this model, the current account is given by the following equation:

$$dz_0 = da_0 - dk_0. \tag{1}$$

Now answer the following questions

(a) What do dz_0, da_0 and dk_0 stand for?   [1]

(b) In terms of the variables of the model, what are the two components of "net foreign assets" (NFA, or net external wealth) and the three components of "total assets" (overall wealth)?   [2]

(c) Starting from equation 1, show that the following holds in the model: [3]

$$dz_0 = \frac{\text{NFA}}{\text{Total assets}} da_0. \tag{2}$$

(d) Based on equation 2, state the "new rule to the current account". In other words, what effect does a positive shock to overall wealth have on the current account?   [2]

Total of question 2: [8]

3. (a) What is the definition of the real exchange rate, Q? [1]

   (b) State the definition of the real exchange rate in logarithms? [1]

   (c) What is absolute purchasing power parity (PPP)? To answer this question, simply state the values that Q and q take when absolute PPP prevails. [1]

   (d) What argument is normally put forward to explain why the real exchange rate should return to absolute PPP over time? [1]

   (e) State the equation that determines the nominal exchange rate in the currency flow model? [1]

   (f) By combining the equations from the parts b and e of this question, show that absolute PPP may not hold in the currency flow model. [2]

   (g) Intuitively, why do deviations from absolute PPP not disappear over time in the currency flow model? [1]

Total of question 3: [8]

4. According to the currency flow model, the cumulative balance of payments identity is given by the following equation:

$$z_0^{\text{H}} = e_0^{\text{HF}} - e_0^{\text{FH}} + b_0^{\text{HF}} - b_0^{\text{FH}} + m_0^{\text{HF}} + b_0^{\bar{\text{H}}\text{F}} - m_0^{\text{F}\bar{\text{H}}} - b_0^{\bar{\text{F}}\text{H}} + m_0^{\text{H}\bar{\text{F}}}. \tag{3}$$

(a) In terms of the variables of equation 3, how is currency market pressure, $\tilde{m}_0$, defined? [1]

(b) What are the main economic determinants of currency market pressure, $\tilde{m}_0$? To answer this question, solve equation 3 for currency market pressure and comment on the variables on the right-hand side of the equation you have derived. [7]

Total of question 4: [8]

5. (a) What are "official reserves" (part of central banks' assets)? [1]

   (b) What are "bank reserves" (part of central banks' liabilities, not to be confused with official reserves)? [1]

   (c) What is "domestic credit" (part of central banks' assets)? [1]

   (d) Why might a central bank engage in domestic credit expansion and run down official reserves at the same time? [1]

   (e) Why does selling official reserves lead to an appreciation of the exchange rate according to the monetary model of exchange rate determination (when everything else is kept constant)? Please use the relevant equations to indicate the causality. [2]

   (f) Why does selling official reserves lead to an appreciation of the exchange rate according to the currency flow model of exchange rate determination (when everything else is kept constant)? Please use the relevant equations to indicate the causality. [2]

Total of question 5: [8]