International economics (2015–2016)
Final exam
Part on international macroeconomics

Nikolas A. Müller-Plantenberg*

14 January 2016, 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).

*E-mail: nikolas@mullerpl.net. Address: Faculty of Economics and Business Administration, Universidad Autónoma de Madrid, 28049 Cantoblanco, Madrid, Spain.

1. (a) Suppose a domestic investor invests in foreign bonds.
   i) Where exactly in the domestic balance of payments are the credit and the debit of this transaction recorded? [2]

   ii) Now consider the simplified balance of payments equation of the currency flow model. How is the transaction recorded here? [2]

   (b) Suppose the central bank buys official reserves.
   i) Where exactly in the domestic balance of payments are the credit and the debit of this transaction recorded? [2]

   ii) Now consider the simplified balance of payments equation of the currency flow model. How is the transaction recorded here? [2]

Total of question 1: [8]

2. (a) The ”rule of 72” states an approximate relationship between the growth rate of a variable, g, and the time it needs for the variable to double, t. How does this relationship look like in mathematical terms? [2]

   (b) Suppose that prices abroad stay constant, but that domestic prices rise constantly at a rate of 8%? How many years would it need for the domestic price level to rise by a factor of 4 (or, what is the same, to rise by 300%)? [2]

   (c) When the domestic money supply rises faster than the foreign one, does the nominal exchange rate rise or fall according to the monetary model of exchange rate determination? State the intuition for your answer? [2]

   (d) Now we come back to the example where domestic prices rise by a factor of 4, whereas foreign prices stay constant. According to the monetary model of exchange rate determination, by how many percent has the nominal exchange rate appreciated or depreciated by the time domestic prices have risen by a factor of 4? [2]

Total of question 2: [8]

3. (a) State the equation that defines the real exchange rate, Q. Then take logarithms to derive the equation that defines the logarithm of the real exchange rate, q. [2]

   (b) If PPP holds in absolute terms, what values do Q and q take? [1]

   (c) What is the basic argument for PPP to hold? [1]

   (d) How is the nominal exchange rate, s, determined in the currency flow model? Please state just the equation. [1]

   (e) Combining the equations for q and s stated in parts a and d of this question, what can be said about the value of q? Explain why PPP does not hold in the currency flow model. (Hint: Note that price level changes affect the real exchange rate through two channels.) [3]

Total of question 3: [8]

4. (a) In this question, unless otherwise indicated, it is supposed that consumption is stable. Very briefly, why is this a plausible assumption? [1]

   (b) How is the current account, *CA*, related to income, Y, consumption, C, investment, I, and government spending, G. [1]

   (c) Suppose that a country experiences a positive income shock in the current period without any increase in investment or government spending. How does this affect the current account in this period and why? [1]

   (d) Suppose that a country increases its investment spending during the current period. Current income does not change. However, future income rises, with the present discounted value of income increasing by more than the cost of the current additional investment. Government spending is constant.

      i) How is consumption and saving in the current period affected and why? [2]

      ii) How is the current account in the current period affected and why? [1]

   (e) Why might it be good to allow countries to run current account deficits? A very brief answer is sufficient. [1]

   (f) Why might running a current account deficit be problematic? A very brief answer is sufficient. [1]

Total of question 4: [8]

5. State the Maastricht criteria. A brief explanation is enough, there is no need to provide the exact definitions. Then select one criterion and derive its economic justification. [8]

Total of question 5: [8]