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The Global Economy II

Nova SBE – Fall 2020 Miguel Lebre de Freitas, Sharmin Sazedj Exam 04/12/2019 – Duration: 1h45

I (4.5 points)

Define <u>three</u> of the following concepts (3-5 lines each):

- i. Real Interest Rate Parity
- ii. Fear of floating
- iii. Exchange rate pass-through

iv. Self-fulfilling currency crisis

v. Shift in the FIX line



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IV (2.5 points)

In each question, choose one (correct answer: +0.5; wrong answer: -0.125):

(uma é para eliminar)

- 1. The covered interest rate will fail if: (i) there is no capital mobility; (ii) the domestic and foreign bonds are denominated in different currencies; (iii) investors are risk averse; (iv) all the above.
- 2. An temporary decrease in the interest rate in the US will come along with: (i) a contraction of domestic credit in countries under float; (ii) a fall in foreign reserves in countries that fix; (iii) an output expansion in countries that float; (iv) none of the above.
- 3. When the sum of trade elasticities (in absolute value) is equal to one and private spending (C, I) does not depend on the interest rate: (i) the DD curve is negatively sloped; (ii) A monetary expansion will be contractionary under float; (iii) there will be no crowding out in fiscal policy; (iv) all of the above.
- 4. Point 1 in the figure could be characterize as of: Excess demand for money; (ii) excess demand in the market for goods and services; (iii) excess demand for domestic currency; (iv) all the above.



- 5. The OCA line will shift to the right if: (i) labour is mobile across regions in the monetary union; (ii) nominal wages are flexible; (iii) fiscal transfers across member stats are significant; (iv) none of the above.
- 6. If, following the creation of a monetary union, one of the members becomes borrower and the other member becomes a lender, there will be: (i) more benefits from the single currency; (ii) lower costs of adopting a single currency; (iii) a shift in the OCA line; (iv) none of the above.



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III (3.0)

In each question, choose one (correct answer: +1.0; wrong answer: -0.25):

Suppose that a Mexican agent can buy Russian rubles in the spot market at $E_{P/R}=1$ (pesos per rubles). The interest rates in 1-yr deposits and loans in Mexican pesos and in Russian rubles are, respectively, $i_P=10\%-15\%$ and $i_R=5\%-10\%$.

- a) If the euro-rubble spot exchange rate is $E_{E/R}=1.25$, then the peso-euro exchange rate, $E_{P/E}$, must be:
 - (i) 0.625; (ii) 1.25; (iii) 0.8 (iv) none of the above
- b) Suppose that a <u>risk neutral</u> market participant has 10.000 pesos today, and needs that money to be available in one year time in Russia. He expects the pesos per rubbles exchange rate to reach 1.1 in 12 months. Which option is true?

(i) He is indifferent between transferring the money in 12 months and transferring it today; (ii) He prefers to transfer in 12 months to get an expected relative gain of 500 pesos; (iii) He prefers to transfer today to get an expected relative gain of 500 rubles; (iv) None of the above.

c) Suppose that same market participant needed instead the money today in Russia. Which option is true?

(i) He prefers to transfer the money today; (ii) He prefers to transfer the money in 12 months and borrow in the meantime in rubles; (iii) He prefers to transfer the money in 12 months and borrow in the meantime in pesos; (iv) He is indifferent between transferring the money today and borrowing in the meantime in rubles.

II.A (3 points)

Consider an economy with sticky prices and flexible exchange rates, where the interest rate parity holds instantaneously and PPP holds in the long run. The demand for real money balances is given by $m^D = Y/4i$, where Y=100 refers to output, which is constant. The interest rate is initially equal as abroad and i*=10%. The foreign price level is constant and equal to 1.

a) Assume that initially the money supply is M^s=250. (a1) Describe the initial equilibrium, quantifying real money demand, the price level and the nominal exchange rate.



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b) Unexpectedly, the central bank decided to contract the money supply permanently to 80. Find out: (b1) the new short run and long run interest rate;

(b2) the expected exchange rate and the short-run exchange rate;

(b3) Draw the time path of the price level, interest rate and the exchange rate.

IIB (7 points)

Consider an open economy, with **sticky** prices, under **flexible** exchange rates. Initially, P=1 and the foreign interest rate is i*=0.1. The home money demand is given by $m^D = 0.1Y - 10i$, the nominal money supply is M=18, and full employment output is Y_f=190. The goods market equilibrium is described by $Y = 5(\bar{A} + TB)$, where the trade balance is **temporarily** equal to TB = 4(E/P - 3.5), and initially $\bar{A} = 40$. Assume that, due to a **temporary** shock, current output is Y=180.

- a) Describe the initial equilibrium. In particular, find out:
 - (a1) the expression for the DD curve;



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(a2) the interest rate;

(a3) the exchange rate;

(a4) the expected exchange rate;

(a5) the expression for the AA curve;

(a6) the trade balance.



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(a7) Describe the initial equilibrium graphically (AA-DD graph).

b) Departing from (a), discuss and calculate (whenever possible) the effectiveness of a temporary monetary policy in restoring internal and external balance.

c) Departing from (a), discuss and calculate (whenever possible) the effectiveness of a temporary fiscal policy in restoring internal and external balance. How much will be the crowding out in that case?



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d) Departing from (a), suppose that the government decided to fix the exchange rate and target the exchange rate at a new level. (d1) Which level would the monetary authorities choose to achieve full employment output in the short run?

(d2) Find out the implied money supply.

(d3) Describe the adjustment graphically in the AA-DD diagram.

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