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The Global Economy II

Nova SBE – Spring 2022 Miguel Lebre de Freitas, Sharmin Sazedi, Duarte Gonçalves Exam 21/05/2022 – Duration: 1h45

I (4.5 points)

Define *three* of the following concepts (3-5 lines each):

i. Carry trade

ii. Exchange rate overshooting

iii. AA curve

iv. The trillema

v. Self-fulfilling OCA



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IV (2.5 points)

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

- 1. The covered interest rate will not hold exactly if: (i) there are restrictions on capital flows; (ii) the domestic and foreign bonds are denominated in different currencies; (iii) taxes on income and on capital gains are the same; (iv) all the above.
- 2. Point 1 in the figure could be characterize as of: (i) Excess demand for money; (ii) excess demand in the market for goods and services; (iii) excess demand for domestic currency; (iv) all the above.



- 3. In a flexible exchange rate regime, a permanent expansion in foreign demand for domestic goods causes: (i) output to expand; (ii) the trade balance to improve; (iii) output to contract; (iv) none of the above.
- 4. The best policy option to fight temporary unemployment and a CA deficit in a liquidity trap is a: (i) temporary monetary expansion; (ii) a permanent monetary expansion; (iii) temporary fiscal expansion; (iv) all of 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.



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III (2.0 points)

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 $E_{P/R}=1.5$ (pesos per rubles). The interest rates in 1-yr deposits and loans in Mexican pesos and in Russian rubles are, respectively, $i_P=5\%$ and $i_R=10\%$.

- a) If the euro-rubble spot exchange rate is $E_{R/e}=0.8$, then the peso-euro exchange rate, $E_{P/e}$, must be:
 - (i) 1.875; (ii) 1.2; (iii) 0.5 (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 1.25 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 1750 pesos; (iii) He prefers to transfer today to get an expected relative gain of 1400 rubles; (iv) None of the above.

II.A (4.5 points)

Consider an **open** economy with **sticky** prices maintaining a **fixed** exchange rate. The real demand for money is given by $m^{D} = Y/(2i)$, where Y=100 refers to output and i refers to the domestic interest rate. The short-run domestic price level is given by P=2. The foreign interest rate is given by i*=5%. The nominal exchange rate is equal to $\overline{E} = 2$. The expected value of the exchange rate (E^e) is determined according to the function: $E^{e} = \alpha \overline{E} + (1-\alpha)E^{1}$, where $E^{1}=4$.

a) Assuming that $\alpha=1$, determine the equilibrium values of (i) the domestic interest rate; (ii) the real money demand; and (iii) the nominal money supply.



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b) Now, assume that the value of α falls to α =0.5, and that the government intends to keep the peg. Quantify the impact on (i) the domestic interest rate and on (ii) the nominal money supply. (iii) Explain the adjustment mechanism. (iv) Describe the adjustment in the money-market and foreign exchange diagrams. (v) Which phenomenon is illustrated here?



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II.B (6.5 points)

Consider the Euro area, with **sticky** prices, and **flexible** exchange rates. Initially, P=1 and the U.S interest rate is i*=0.2. The home money demand is given by $m^D = Y/10i$, the nominal money supply is M=99, full employment output is Y_f=198 and the expected exchange rate is E^e=1. The goods market equilibrium is described by $Y = 4(\bar{A} + TB)$, where the trade balance is **temporarily** equal to TB = 5(E/P - 5.6), and initially $\bar{A} = 49.5$.

a) Describe the initial equilibrium. In particular, find out:

(a1) the expression for the DD curve;

(a2) the expression for the uncovered interest rate parity;

(a3) the expression for the AA curve;

(a4) quantify equilibrium output and exchange rate;



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(a5) the trade balance;

(a6) Describe the initial equilibrium graphically (AA-DD graph).

b) Departing from (a): (b1) discuss and calculate (quantifying the increase in A) the effectiveness of a temporary fiscal policy in restoring internal balance. (b2) What would happen to the trade balance? (b3) Would it be possible to use temporary fiscal policy to reach external balance instead?



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c) Departing from (a), explain and illustrate graphically (in the money market, foreign exchange market and AA-DD diagram) how an increase in the U.S interest rate would impact the European economy in terms of internal and external balance.



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