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The Global Economy II

Nova SBE – Spring 2020/2021

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Exam 25/05/2021 – Duration: 1h45

I (4.5)

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

i. (foreign exchange) future contract

ii. The J-curve

iii. The Peso Problem

iv. Self-fulfilling currency crisis

v. Oca line

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IV (2.5 points)

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

a. Under flexible exchange rates and sticky prices, a temporary fall in the foreign demand for home exports causes: (i) an output contraction and a real exchange rate depreciation; (ii) an increase in the interest rate and a nominal exchange rate depreciation; (iii) an output contraction and an increase in the nominal interest rate; (iv) all of the above.

b. 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 the above.

c. In a fixed exchange rate regime, a devaluation causes: (i) a capital inflow; (ii) an increase in the backing ratio; (iii) a monetary expansion; (iv) all of the above.

d. All else equal, a country will be better served with a fixed exchange rate regime relative to the euro when: (i) its NIIP is positive and denominated in euros; (ii) nominal wages are sticky; (iii) the business cycle is negatively correlated with that of the euro (iv) all the above.

e. As time goes by, membership of a monetary union: (i) increases the likelihood of satisfying the OCA criteria; (ii) decreases the likelihood of satisfying the OCA criteria; (iii) doesn't change the likelihood of satisfying the OCA criteria;(iv) it depends.

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III (2 points)

The annual interest rate in Euro (EUR) deposits is 1%, while the corresponding interest rate in U.S. Dollar (USD) deposits is 2%. It is further known that the spot exchange rate is $E_{€/\$}$=1 – 1.25 (EUR per 1 USD).

a) Suppose that Euros are currently not directly convertible into Yugoslav Dinars (YUM). Knowing that the YUM per USD spot exchange rate is $E_{YUM/\$}$=2 – 2.5, then:

(i) The bid $E_{EUR/YUM}$ is 2; (ii) the ask $E_{EUR/YUM}$ is 2.5; (iii) the bid $E_{YUM/EUR}$ is 1.6; (iv) none of the above.

b) Now, assume that you believe that the spot exchange rate (EUR per USD) will reach 1.25 in a year. If you decide to assume a speculative position, you would engage in:

(i) Forward speculation, selling USD at the forward rate; (ii) spot speculation, borrowing in EUR today and buying USD in the spot market; (iii) spot speculation, borrowing in USD and buying EUR in the forward market; (iv) none of the above.

II.A (5 points)

Consider an open economy with sticky prices and a **floating** exchange rate. In this economy money supply is initially equal to M=1800, money demand is given by $m^d = \frac{Y}{20i}$, where output is $Y = 150$ (constant) . The interest rate parity holds instantaneously, and PPP holds in the long run. the foreign interest rate is equal to i*=5%. The foreign price level is constant and equal to 2.

a) Assume that initially the domestic interest rate is the same as abroad. (a1) Describe the initial equilibrium, quantifying the real money demand, the price level and the nominal exchange rate.

(a2) Represent graphically the equilibrium in the money market and foreign exchange market.

b) Assume now a **permanent** change in the money demand to $m^d = \frac{Y}{4i}$. Find out the impact on:
b1) the expected future exchange rate.

b2) the new interest rate in the short run and long run.

b3) the short run exchange rate.

b4) Describe graphically the adjustment in the money market and the foreign exchange market, as well as the time paths of the exchange rate, price level and interest rate. Which phenomenon is being illustrated here?

c) Departing from question b), assume that the central bank wants to ensure price stability. c1) How could the central bank intervene? Explain with the help of a graph. c2) Quantiy the central bank intervention.

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II.B (6.5 points)

Consider an open economy with sticky prices and a **fixed** exchange rate (E=1). The goods market equilibrium is described by the following expression $Y = 4(\bar{A} + TB)$, where $TB = 5\left(\frac{E}{P} - 2\right)$. The home money demand is given by $m^d = \frac{Y}{10i}$, and full employment output is $Y^f = 200$. The interest rate parity holds instantaneously, and the foreign interest rate is equal to i*=0.1. Initially, Y=180, with the price level equal to P = 1.

a) Find out:

a1) $\bar{A}$;

a2) the DD curve;

a3) the AA curve;

b) Suppose that the policy-maker intends to pursue expansionary fiscal policy to bring the economy to full employment in the short run. In this case:

b1) Explain with the help of a graph.

b2) Quantify the required change in $\bar{A}$ and in the Central Bank reserves.

c) In alternative to b), could the policy-maker reach internal balance with a devaluation. c1) Explain with the help of a graph.

c2) Quantify the required exchange rate and the change in Central Bank reserves.

d) Suppose that no policy action was taken but agents believed in the devaluation (as found in c1)) to occur in one year time. d1) Explain with the help of a graph.

d2) What would be the implied interest rate and change in central bank reserves?