

TOBB-ETU, Economics Department
Macroeconomics II (IKT 234)
Open Economy - Practice Questions I
(Ozan Eksi)

CH 18

1. Suppose the dollar/pound exchange rate on Monday is 0.60 and on the following Friday is 0.68.

- a-) Has the value of the dollar increased or decreased during the week? Briefly explain.
- b-) What has happened to the price of the foreign currency in terms of the domestic currency?
- c-) Has the dollar appreciated or depreciated during the week?
- d-) What happened to E (dollar/pound) during the week?

2. Let P be the GDP deflator in the United States and P^* be the GDP deflator in the UK. Suppose $P=1.6$ and $P^*=1.1$.

- a-) Calculate the real exchange rate for each of the following pound/dollar nominal exchange rates: 0.4, 0.5, 0.6 and 0.7.
- b-) What happens to the real exchange rate as E increases?
- c-) What happens to the price of U.K. goods in terms of U.S. goods as E increases? Briefly explain.
- d-) Does an increase in E cause a real appreciation or depreciation of the dollar?

3. Use the following information to answer this question.

	E	P^*	P
1996	0.60	1.5	1.2
1997	0.66	1.5	1.2

Note: E is the pound/dollar nominal exchange rate.

- a-) Calculate the real exchange rate in 1996 and 1997.
- b-) What was the percentage change in the real exchange rate between 1996 and 1997? Does this change in the real exchange rate represent a real appreciation or depreciation?
- c-) Calculate the percentage change in the nominal exchange rate between the two years. Does this change represent a nominal appreciation or depreciation of the dollar?

4. Use the following information and uncovered interest rate parity condition ($i = i^* - (E^e - E)/E$) to answer this question: $i^* = 22\%$; and $E_t = 1$.

a-) Suppose $E_{t+1}^e = 0.9$. Do individuals expect the dollar to appreciate or depreciate? Calculate the expected rate of appreciation or depreciation. Based on your analysis, what must the domestic interest rate be to satisfy the arbitrage relation?

b-) Now, suppose $E_{t+1}^e = 1.1$. Do individuals expect the dollar to appreciate or depreciate? Calculate the expected rate of appreciation or depreciation. Based on your analysis, what must the domestic interest rate be to satisfy the arbitrage relation?

5. For each of the following cases, determine whether an individual should buy U.S. bonds or foreign bonds.

a-) $i=4\%$, $i^*=6\%$, expected depreciation of the dollar of 3%

b-) $i=4\%$, $i^*=6\%$, expected depreciation of the dollar of 1%

c-) $i=4\%$, $i^*=6\%$, expected depreciation of the dollar of 2%

6. Assume the interest parity condition holds. Suppose $i^*=10\%$ and that the dollar is expected to depreciate by 2% during the next year. For every dollar an individual invests in a foreign bond, she can expect to receive how many dollars in one year?

a-) 1.02

b-) 1.08

c-) 1.10

d-) 1.12

7. Which of the following transactions is included in the current accounts?

a-) statistical discrepancy

b-) net investment income

c-) increase in foreign holdings of U.S. assets

d-) increase in U.S. holdings of foreign assets

8. Which of the following transactions is included in the capital account?

a-) trade balance

b-) net investment income

c-) increase in foreign holdings of domestic assets

d-) all of the above

9-) AWhich one of the following statements is true?

a-) If a country has a fixed exchange rate regime, we do not expect changes in its foreign reserves

- b-)** In a fixed exchange rate regime, the sum of current account and changes in central bank reserves is equal to zero.
- c-)** In a fixed exchange rate regime, the sum of capital account and changes in central bank reserves is equal to zero.
- d-)** The sum of current account, capital account and changes in central bank reserves is expected to be equal to zero.

10-) Which one of the choices below is true about Impossible Trinity theory?

- a-)** A lack of monetary policy autonomy means that country cannot have perfect capital mobility
- b-)** A country with a fixed exchange rate regime has to restrict capital mobility to attain monetary policy autonomy
- c-)** Monetary policy autonomy is only possible with perfect capital mobility
- d-)** Fixed exchange rate regime and perfect capital mobility implies autonomous monetary policy

CH 19

1. Suppose you are given the following information about an economy: $C=1200$; $I=300$; $G=500$; $X=450$; and $IM=400$. Further assume that all variables are expressed in terms of domestic goods.

a-) Calculate the level of “domestic demand for goods”, the level of “demand for domestic goods” and net exports. What is the difference between the demand for domestic goods and the domestic demand for goods? Compare this with the trade balance.

b-) Repeat the analysis in part a. This time, however, assume $IM=500$ and that all other variables are the same.

c-) Repeat the analysis in a. This time, however, assume that $X=400$. Use the original values of the variables.

d-) Based on your analysis in parts a, b and c, under what condition will the demand for domestic goods be greater than, less than or equal to the domestic demand for goods?

2. Suppose the goods market is represented by the following behavioral equations.

$$C = 500 + .5Y^D$$

$$X = .1Y^* + 100/\varepsilon$$

$$Y^* = 1000$$

$$Z = C + I + G + X - IM/\varepsilon$$

$$I = 500 - 2000r + .1Y$$

$$IM = .1Y - 100/\varepsilon$$

$$r = .05(5\%)$$

$$G = 500$$

$$T = 400$$

$$\varepsilon = 1$$

$$Y = Z \text{ in equilibrium}$$

a-) Calculate equilibrium GDP (Y).

b-) Given your answer in a, calculate C , I , X and IM .

c-) At this level of output, is the economy experiencing a trade surplus or deficit?

d-) Suppose G increases by 100 (to 600). Calculate the new equilibrium level of output. What is the size of the multiplier?

e-) Based on your answer to d, calculate the new level of IM . Calculate the change in net exports caused by this increase in G .

2. ANS:

a-)

$$\begin{aligned} Y &= Z = (500 + .5(Y - 400)) + (.1Y + 500 - 100) + 500 + (100 + 100) + (-.1Y + 100) \\ &= 1500 + .5Y \end{aligned}$$

$$Y = 1500/.5 = 3000$$

b-)

$$\begin{aligned}C &= 500 + .5(3000 - 400) = 1800 \\I &= 500 - 100 + .1(3000) = 700 \\X &= 200 \\IM &= .1(3000) - 100 = 200\end{aligned}$$

c-) $X=IM=200$; a trade balance

d-) Jumping some steps, we have

$$\begin{aligned}Y &= 1600 + .5Y \\Y &= 1600/.5 = 3200\end{aligned}$$

Y increases by 200 given the 100 increase in G; so, the multiplier is 2.

e-)

$$IM = .1(3200) - 100 = 220$$

X does not change; therefore, there is now a trade deficit of 20.

3-) Which of the following expressions represents the “demand for domestic goods”?

- a-) $C+I+G$
- b-) $C+I+G+X$
- c-) $C+I+G+\varepsilon X-IM$
- d-) all of the above
- e-) none of the above

4-) Which of the following represents the domestic demand for goods?

- a-) $C + I + G$
- b-) $C + I + G + X$
- c-) $C + I + G - IM/\varepsilon$
- d-) $C + I + G + X - IM$
- e-) $C + I + G + X + \varepsilon IM$

5-) Assume a country is open. Given this information, which of the following must occur?

- a-) demand for domestic goods will be equal to the domestic demand for goods
- b-) demand for domestic goods will be greater than the domestic demand for goods
- c-) demand for domestic goods will be less than the domestic demand for goods
- d-) $S^p + T = I + G$
- e-) none of the above

6-) Which of the following events would cause a reduction in imports?

- a-) increase in Y^*
- b-) decrease in Y^*
- c-) decrease in ε
- d-) an increase in Y

7-) Exports will decrease when there is

- a-) an increase in the real exchange rate.
- b-) an increase in domestic output.
- c-) an increase in foreign output.
- d-) all of the above

8-) The net export declines with a positive shock to domestic output because of the effect of:

- a-) Y on IM
- b-) Y^* on X
- c-) ε on X
- d-) ε on IM

9-) Suppose there is a reduction in foreign output (Y^*). This reduction in Y^* will cause which of the following in the domestic country?

- a-) a reduction in output
- b-) a reduction in consumption
- c-) a reduction in net exports
- d-) all of the above
- e-) none of the above

10-) Suppose there is a real appreciation. This real appreciation is more likely to cause a reduction in net exports when

- a-) domestic output is relatively low.
- b-) foreign output is relatively high.
- c-) the Marshall-Lerner condition does not hold.
- d-) imports are not at all sensitive to price changes.
- e-) exports and imports are relatively sensitive to price changes.

11-) Assume the Marshall-Lerner condition holds. A real appreciation will cause:

- a-) the NX line to shift up
- b-) a reduction in NX
- c-) an increase in Y
- d-) all of the above

12-) The J-curve illustrates the effects of:

- a-) Y on NX
- b-) Y^* on exports
- c-) a real depreciation on NX
- d-) Y on imports

13-) For this question, assume the Marshal-Lerner condition holds. Which of the following would occur as a result of an increase in the real exchange rate?

- a-) an improvement of the trade balance
- b-) a reduction in the quantity of imports
- c-) an increase in domestic output
- d-) all of the above
- e-) none of the above

14-) We expect that a depreciation

- a-) immediately improves the trade balance.
- b-) eventually improves the trade balance.
- c-) first improves, but then worsens the trade balance.
- d-) has no effect on the trade balance.
- e-) none of the above

15-) Assume that the J-curve effect exists. Which of the following will occur after a real appreciation?

- a-) the trade deficit will improve temporarily before it worsens.
- b-) the trade deficit will worsen temporarily before it improves.
- c-) the real exchange rate will fall temporarily before it rises.
- d-) the real exchange rate will rise temporarily before it falls.
- e-) none of the above

CH 18 - ANSWERS

1. ANS:

- a-) The value of the dollar has decreased. By Friday, one pound buys more dollars
- b-) Increased.
- c-) Depreciated.
- d-) E increased.

2. ANS:

- a-) $\varepsilon = EP/P^*$; $1.6/1.1*0.4 - 1.6/1.1*0.6 - 1.6/1.1*0.7$
- b-) It increases
- c-) It decreases.
- d-) Real appreciation

3. ANS:

- a-) The real exchange rate in 1996 is $.6(1.2)/1.5=.48$. The real exchange rate in 1997 is $.66(1.2)/1.5=.528$.
- b-) $(.528-.48)/.48=10\%$. The real exchange rate increased; a real appreciation.
- c-) The percentage change in E=10%. A nominal appreciation.

4. ANS:

- a-) They expect an depreciation. The expected depreciation is 10% (E is expected to fall by 10%). i must be $\%12 + \%10 = 22\%$
- b-) They expect an appreciation. The expected appreciation is 10%. i must be $\%12 - \%10 = 2\%$

5. ANS:

- a-) foreign
- b-) foreign
- c-) foreign

6.D 7. B 8.C 9.D 10.B

CH 19 - ANSWERS

1. ANS:

a-) domestic demand = $C + I + G = 2000$; demand for domestic goods = $C + I + G + (X-IM) = 2050$. The difference is 50. $X-IM=50$. They are the same.

b-) Domestic demand does not change: 2000, demand for domestic goods = 1950. The difference is -50. $X-IM= -50$. They are the same.

c-) Domestic demand does not change: 2000; demand for domestic goods=2000. There is no difference $X-IM=0$.

d-) The demand for domestic goods is greater than domestic demand when $X>IM$ (a trade surplus). The demand for domestic goods is less than domestic demand when $X<IM$ (a trade deficit). The demand for domestic goods equals domestic demand when $X=IM$ (a trade balance).

2. ANS:

a-)

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b-)

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e-)

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3. E 4.A 5. E 6.C 7.A 8.A 9.D 10.E

11.B 12.C 13. E 14.B 15.A