Assignment/Homework evaluation

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Course	Macroeconomics
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Date	15/12/2019

Assignment N° 1

Begin to write your assignment here

Chapter 1,2.

Ex.2.

Use the model of supply and demand to explain how a fall in the price of frozen yogurt would affect the price of ice cream and the quantity of ice cream sold. In your explanation, identify the exogenous and endogenous variables.

There are two ways to answer the question. A frozen yogurt may be detached commodity like a supplement (laptop and PC in average preferences) or the part of ingredients.

Suppose, a frozen yogurt is a supplement for ice creame so costumers have to choose between two goods at homogeneous market, if our previous point was an equilibrium so decrease in price of frozen yogurt lead us to increase in Demand for a frozen yogurt and consequently

decrease in Demand for an ice cream therefore equilibrium Market Price and Total Sales for Ice Cream are bound to decrease.

If we assume that frozen yogurt is an ingredient, look up for Supply function S(P, Pp), depending on market price and production price. Whether our production price hase risen hence Supply function is moving left (issue is shrinking becouse of price production). Finally, it lead us to Decrease in Total Sales for Ice Cream but Increase in Market Price.

For the first model, Exogenous variables are price of materials and volume of willingness to buy something at the market. Endogenous variables are Market Price and the rate of sales.

For the second one, Exogenous and Endogenous variables are the same, but when we meet Long Run Equilibrium in such model, price of materials becomes Endogenous.

Chapter 3

Ex. 4

Suppose a country has a money demand function $(M/P)d = k*Y$, where k is a constant parameter. The money supply grows by 12 per year, and real income grows by 4 percent per year. a. What is the average inflation rate? b. How would inflation be different if real income growth were higher? Explain. c. Suppose, instead of a constant money demand function, the velocity of money in this economy was growing steadily because of financial innovation. How would that affect the inflation rate? Explain.

Write the Equation $M*V = P*T$, where M- amount of cash (M1 probably), V- the velocity of the money circulation, P – average price, T- amount of trade deals (GDP is good for describe)

Rewrite and logarithm. $\ln Mt + \ln Vt = \ln Pt + \ln Yt$, t – time series

Take derivatives

$mt + vt = \pi t + gt$, mt- the rate of growth money amount, vt- the rate of increase velocity of the money circulation, πt – the rate of inflation, gt – the rate of growth real GDP

a) V is a constant so $vt = 0$, $\pi t = 12 - 4 = 8$ percent
b) The average inflation rate could be less than 8 percent
c) V is a raising function so $vt = 0+m$, m – parameter, $(\pi t)^* = 12 - 4 + m$; $\pi t^* > \pi t$

Chapter 4

Ex. 2

Job loss, job finding and long-run unemployment rate. At the time t0, the economy has 2300 workers employed and 200 unemployed. The unemployed have a monthly probability equal to 0.3 to find a job and workers a probability equal to 0.02 of losing their jobs. a) What is the unemployment rate u0? b) What is the long-run unemployment rate in this economy? c) What is the flow of new unemployed and that of new workers for next month? d) What will the unemployment rate u1 be? e) How should change the unemployment rate in the coming months?

a) The Unemployment rate equals $u = U/(U+E)$, where U – unemployed, E – employed, $U = 200$, $E = 2300$, $u = 200/2500 = 8$ percent
b) LR unemployment rate finds from equilibrium $sE = fU$ and equals $u = s/(s+f)$, s – prob lose the job, f – prob find th job, $s = 0.02$, $f = 0.3$; $u = 0.02/0.32 = 6.25$ percent
c) The flow of unemployed to employed is equal to $U*f = 200*0.3 = 60$ people find a job in the next month, the flow of employed to unemployed is equal to $sE = 0.02*2300 = 46$ workers lose the job in the next month

d) The unemployment rate for the next month equals $u_1 = (U_0 - (fU)_0 + (sE)_0)/(E+U) = (200 - 60 + 46)/2500 = 7.44$ percent

e) The unemployment rate is going to decrease and reach LR rate.

Chapter 5,6

Ex. 2

Suppose that the money demand function is: $(M/P)d = 1,000 - 100r$ where r is the interest rate in percent. The money supply M is 1,000 and the price level P is 2. a. Graph the supply and demand for real money balances. b. What is the equilibrium interest rate? c. Assume that the price level is fixed. What happens to the equilibrium interest rate if the supply of money is raised from 1,000 to 1,200? d. If the Fed wishes to raise the interest rate to 7 percent, what money supply should it set?

Equilibrium at money market
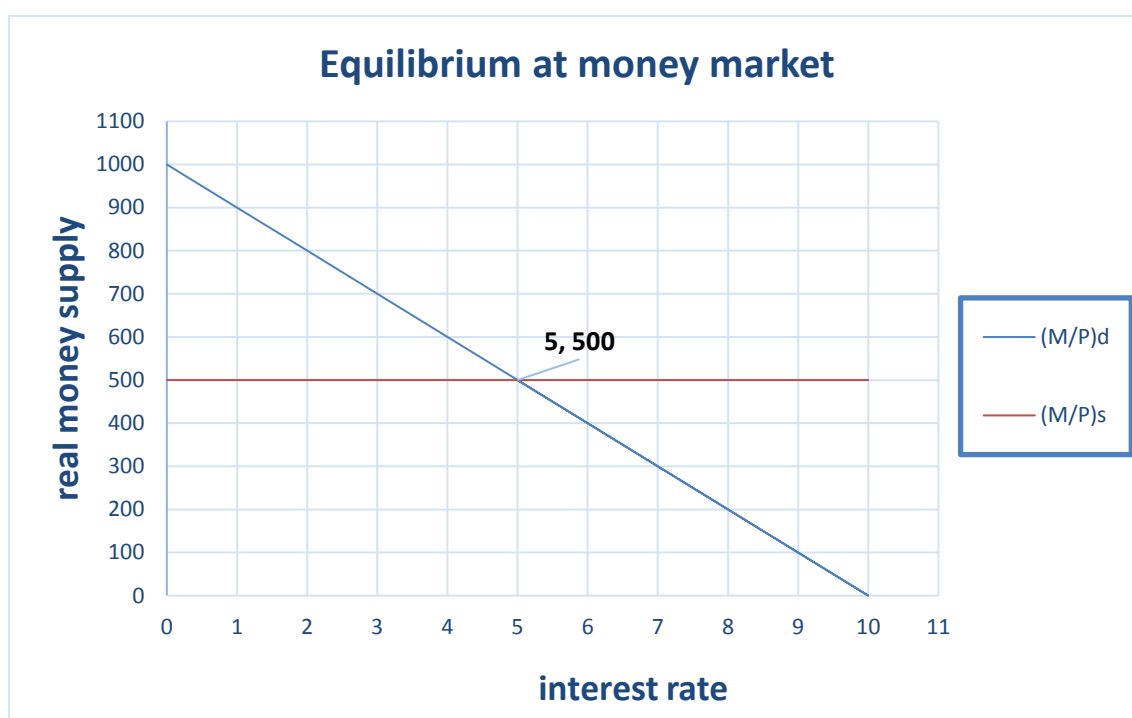
b) $(M/P)d = (M/P)s$; $1000-100r = 1000/2$; $r = 5$

c) Money supply is increased so $1000-100r = 1200/2$, $r=4$, so interest rate decreased by the way

d) The interest rate is increased by FRS to 7 percent consequently $(M/P)s = 1000 - 100*7 = 300$