Izmir University of Economics  
Econ 100  
Spring 2013  

**Problem Set 5 (Chapters 12-13-15)**

**Essay Questions**

1) Michael is an internet service provider. On December 31, 2005, he bought an existing business with servers and a building worth €200,000. During his first year of operation, his business grew and he bought new servers for €400,000. The market value of his older servers fell by €200,000.  
   a) Calculate Michael’s gross investment, net investment, and depreciation during 2006.  
      Gross investment during 2006= €400,000  
      Net investment during 2006= 400,000 - 200,000= €200,000  
      Depreciation= €200,000  
   b) Calculate the value of Michael’s capital at the end of 2006.  
      Capital= 200,000 + 400,000 - 200,000= €400,000

2) Lori is a student who teaches golf on the weekend and in a year earns €20,000 after paying her taxes. At the beginning of 2008, Lori owned €3,000 worth of books, CDs, and golf clubs and she had €3,000 in a savings account at the bank. During 2008, the interest on her savings account was €180 and she spent a total of €10,000 on consumption goods and services. There was no change in the market values of her books, CDs, and golf clubs.  
   a) How much did Lori save in 2008?  
      Saving=S=20,000 - 10,000 + 180= €10180  
   b) What was her wealth at the end of 2008?  
      Wealth= 3000 + 3000 + 10180= €16180

3) First call, plc is a mobile phone company. It plans to build an assembly plant that costs €10 million if the real interest rate is 6 per cent a year. If the real interest rate is 5 per cent a year, First Call will build a larger plant that costs €12 million. And if the real interest rate is 7 per cent a year, First Call will build a smaller plant that costs €8 million.  
   a) Draw a graph of First Call’s demand for loanable funds curve.

![Graph](image_url)
b) First Call expects its profit from the sale of mobile phones to double next year. If everything else remains the same, explain how this increase in expected profit influences First Call’s demand for loanable funds? The increase in expected profit leads to an increase in demand for loanable funds. Other things remaining the same, the greater the expected profit from new capital, the greater is the amount of investment and the greater the demand for loanable funds. When expected profit increases, the demand for loanable funds curve shifts to the right.

4) The table below shows an economy’s demand for loanable funds schedule and supply of loanable funds schedule, when the government’s budget is balanced. Suppose that the government has a budget surplus of €100 billion. What are the real interest rate, the quantity of investment, and the quantity of private saving? Is there any crowding out in this situation?

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<tr>
<th>Real interest rate (percent per year)</th>
<th>Loanable funds demanded (billions of 2006 dollars)</th>
<th>Loanable funds supplied (billions of 2006 dollars)</th>
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<tbody>
<tr>
<td>4</td>
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The equilibrium interest rate is 5%, at which the demand for and the supply of loanable funds are equal. The quantity of investment is €750 billion.
The quantity of private saving is €650 billion. A government budget surplus contributes to financing investment. Therefore, there is no crowding-out effect in case of a budget surplus. In contrast, a budget deficit crows out investment by competing with businesses for scarce financial capital.

5) Canada’s real GDP was 1,157 billion dollars in 2005 and 1,194 billion dollars in 2006. Canada’s population growth rate was 0.82 percent.
   a) Calculate Canada’s economic growth rate.
      Economic growth rate = (real GDP in current year – real GDP in previous year) / real GDP in previous year * 100
      = (1,194–1,157) / 1,157 * 100 = 3.2%
   b) Calculate growth rate of real GDP per person.
      The growth rate of real GDP per person can be approximately calculated by subtracting the population growth rate from the real GDP growth rate.
      Growth rate of real GDP per person = real GDP growth rate – population growth rate
      = 3.2 - 0.82
      = 2.38%

Multiple Choice Questions

1) Three main types of markets for financial capital are ...............  
   a) Loan markets, bond markets, and stock markets 
   b) Loan markets, bond markets, and commercial banks 
   c) Investment banks, commercial banks, and insurance companies 
   d) Bond markets, stock markets, and commercial banks

2) The supply of loanable funs is influenced by ...........
   a) The real interest rate 
   b) Wealth and default risk 
   c) Disposable income and expected future income 
   d) all of the above

3) Households make saving decisions by considering all of the following factors except 
   a) expected future income 
   b) expected profit 
   c) disposable income 
   d) default risk 

4) If a country’s net exports are ............ the rest of the world supplies funds to that country and the quantity of loanable funds in the country is ........... than national saving. 
   a) Negative; greater 
   b) Positive; greater 
   c) Negative; less 
   d) Positive; less
5) Money is any commodity or token that is generally acceptable as a ................
   a) Tool in the absence of double coincidence of wants
   b) Store of value
   c) units of account
   d) means of payment

6) Indicate whether the following items are money or not money in the UK today.
   not money__________ Bank of England bank notes in Barclay’s cash machines
   not money__________ The cheque you have just written to pay for your rent
   money__________ The 10 pounds note in your wallet
   money__________ Coins inside a vending machine

7) Choose the correct statements.
   1. Polo mints do not serve as money because they are not a good store of value
   2. Most people know the price of polo mints, so they could serve as money because they are a unit of account.
   3. Because most people buy polo mints they can be used as money because they are a useful tool in barter.
   4. Polo mints do not serve as money because they are not generally accepted in exchange for goods and services.
      a) statements 2 and 3 are correct
      b) statements 2 and 4 are correct
      c) statements 1 and 3 are correct
      d) statements 1 and 4 are correct

8) Rapid inflation in Brazil in the early 1990s caused the cruzeiro to lose its ability to function as money. Which of the following commodities do you think would most likely have taken the place of the cruzeiro in Brazilian economy?
   a) Packs of cigarettes because they are a good medium of exchange
   b) Loaves of bread because the price of bread is relatively constant
   c) Impressionist painting because paintings are a good store of value
   d) tractor parts because they are a store of value

9) The main economic functions of a monetary financial institution include all of the following except..........
   a) lowering the cost of monitoring borrowers
   b) creating liquidity
   c) lowering the cost of borrowing
   d) providing insurance of loans
10) The ratio of reserves to deposits that a bank plans to hold is its .......... 
If a bank has €10 million in actual reserves and €8 million in desired reserves, then it has 
.........
   a) desired deposit ratio; a shortage of deposits
   b) planned reserve ratio; a currency drain
   c) desired reserve ratio; excess reserves
   d) planned deposit ratio; a shortage of currency

11) When the Bank of England buys securities from a bank, a sequence of events begins. The 
events are listed below. Number each event in the order in which it occurs.
   2----- Banks lend excess reserves
   6----- some of the new money is a currency drain
   1----- Banks have excess reserves
   4----- New money is used to make payments
   3----- The quantity of money increases
   8----- Excess reserves decrease
   5----- Some of the new money remains on deposit
   7----- Desired reserves increase because deposits have increased

12) The sources of labour productivity growth include all of the following except ..........
   a) physical capital growth
   b) human capital growth
   c) technological advances
   d) real wage rate growth

13) Choose the statement that is incorrect.
   a) Growth in average hours per worker increase labour productivity
   b) The fundamental source of labour productivity growth is human capital
   c) As the amount of capital per worker increases, labour productivity also increases
   d) The largest contribution to labour productivity growth comes from technological advances

14) Real GDP per person grows when ...........
   a) real GDP and the population grow at an equal rate
   b) real GDP grows at a faster rate that the population grows
   c) immigration laws are restrictive
   d) the population grows a faster rate that the GDP grows