# Homework Assignment – Week 1

## Chapter 1

1. Why are financial markets important to the health of the economy?

Because they channel funds from those who do not have a productive use for them to those who do, thereby resulting in higher economic efficiency.

1. When interest rates rise, how might businesses and consumers change their economic behavior?

Businesses would cut investment spending because the cost of financing this spending is now higher, and consumers would be less likely to purchase a house or a car because the cost of financing their purchase is higher.

1. How can a change in interest rates affect the profitability of financial institutions?

A change in interest rates affects the cost of acquiring funds for financial institution as well as changes the income on assets such as loans, both of which affect profits. In addition, changes in interest rates affect the price of assets such as stock and bonds that the financial institution owns that can lead to profits or losses.

1. Is everybody worse off when interest rates rise?

No. People who borrow to purchase a house or a car are worse off because it costs them more to finance their purchase; however, savers benefit because they can earn higher interest rates on their savings.

1. What effect might a fall in stock prices have on business investment?

The lower price for a firm’s shares means that it can raise a smaller amount of funds, and so investment in plant and equipment will fall.

1. What effect might a rise in stock prices have on consumers’ decisions to spend?

Higher stock prices mean that consumers’ wealth is higher and so they will be more likely to increase their spending.

1. How does a decline in the value of pound sterling affect British consumers?

It makes foreign goods more expensive and so British consumers will buy less foreign goods and more domestic goods.

1. How does an increase in the value of the pound sterling affect American businesses?

It makes British goods more expensive relative to American goods. American businesses will find it easier to sell their goods in the United States and abroad, and the demand for their products will rise. If, however, an American business depends on supplies/parts from British companies these products will increase their costs.

1. How can changes in foreign exchange rates affect the profitability of financial institutions?

Changes in foreign exchange rates change the value of assets held by financial institutions and thus lead to gains and losses on these assets. Also changes in foreign exchange rates affect the profits made by traders in foreign exchange who work for financial institutions.

1. Using [www.bloomberg.com](http://www.bloomberg.com) find a chart of the US dollar vs. British Pound exchange rate for the past 5 years. In what year would an American have found it cheapest to visit London? In what year would an English citizen have found it cheapest to visit the Grand Canyon?

The exchange rate chart can be found at: <http://www.bloomberg.com/quote/GBPUSD:CUR/chart>. The Pound was the weakest in 2009 and this would have been the cheapest time for an American to visit London. The Pound was strongest in November 2007 and this would have been the time when an English Citizen would have found the US the cheapest.

1. What is the basic activity of banks?

Banks accept deposits and then use the resulting funds to make loans.

1. What are other important financial intermediaries in the economy besides banks?

Savings and loan associations, mutual savings banks, credit unions, insurance companies, mutual funds, pension funds, and finance companies

1. Can you think of any financial innovation in the past 10 years that has affected you personally? Has it made you better or worse off? In what way?
2. What types of risks do financial institutions face?

The profitability of financial institutions is affected by changes in interest rates, stock prices, and foreign exchange rates; fluctuations in these variables expose these institutions to risk. Financial institutions also face credit risk to counterparties with whom the trade and clients to whom they lend.

1. Why do managers of financial institutions care so much about the activities of the Federal Reserve System?

Because the actions of the Federal Reserve affects interest rates, inflation, and business cycles, all of which have an important impact on the profitability of financial institutions.



The following table lists foreign exchange rates between U.S. dollars and British pounds during April:

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **U.S. Dollars per GBP** | **Date** | **U.S. Dollars per GBP** |
| 4/1 | 1.9564 | 4/18 | 1.7504 |
| 4/4 | 1.9293 | 4/19 | 1.7255 |
| 4/5 | 1.914 | 4/20 | 1.6914 |
| 4/6 | 1.9374 | 4/21 | 1.672 |
| 4/7 | 1.961 | 4/22 | 1.6684 |
| 4/8 | 1.8925 | 4/25 | 1.6674 |
| 4/11 | 1.8822 | 4/26 | 1.6857 |
| 4/12 | 1.8558 | 4/27 | 1.6925 |
| 4/13 | 1.796 | 4/28 | 1.7201 |
| 4/14 | 1.7902 | 4/29 | 1.7512 |
| 4/15 | 1.7785 |  |  |

Which day would have been the best day to convert $200 into British pounds? The best day is 4/25. At a rate of $1.6674/pound, you would have £119.95.

Which day would have been the worst day? What would be the difference in pounds? The worst day is 4/7. At $1.961/pound, you would have £101.99, or a difference of £17.96.

## Chapter 2

1. Why is a share of Microsoft common stock an asset for its owner and a liability for Microsoft?

The share of Microsoft stock is an asset for its owner because it entitles the owner to a share of the earnings and assets of Microsoft. The share is a liability for Microsoft because it is a claim on its earnings and assets by the owner of the share.

1. If I can buy a car today for $5,000 and it is worth $10,000 in extra income next year to me because it enables me to get a job as a traveling anvil seller should I take out a loan from Larry the loan shark at 90% interest rate if no one else will give me a loan? Will I be better or worse off as a result of taking out this loan? Can you make a case for legalizing loan-sharking?

Yes, I should take out the loan, because I will be better off as a result of doing so. My interest payment will be $4,500 (90% of $5,000), but as a result, I will earn an additional $10,000, so I will be ahead of the game by $500. Since Larry’s loan-sharking business can make some people better off, as in this example, loan sharking may have social benefits. (One argument against legalizing loan sharking, however, is that it is frequently a violent activity.)

1. Some economists suspect that one of the reasons that economies in developing countries grow so slowly is that they do not have well-developed financial markets. Does this argument make sense?

Yes, because the absence of financial markets means that funds cannot be channeled to people who have the most productive use for them. Entrepreneurs then cannot acquire funds to set up businesses that would help the economy grow.

1. “Because corporations do not actually raise any funds in secondary markets, they are less important to the economy than primary markets.” Comment.

This statement is false. Prices in secondary markets determine the prices that firms issuing securities receive in primary markets. In addition, secondary markets make securities more liquid and thus easier to sell in the primary markets. Therefore, secondary markets are, if anything, more important than primary markets.

1. If you suspect that a company will go bankrupt next year, which would you rather hold, bonds issued by the company or equities issued by the company? Why?

You would rather hold bonds, because bondholders are paid off before equity holders, who are the residual claimants.

1. How can the adverse selection problem explain why you are more likely to make a loan to a family member than to a stranger?

Because you know your family member better than a stranger, you know more about the borrower’s honesty, propensity for risk taking, and other traits. There is less asymmetric information than with   
a stranger and less likelihood of an adverse selection problem, with the result that you are more likely to lend to the family member.

1. Think of one example in which you have had to deal with the adverse selection problem.
2. Why do loan sharks worry less about moral hazard in connection with their borrowers than some other lenders do?

Loan sharks can threaten their borrowers with bodily harm if borrowers take actions that might jeopardize paying off the loan. Hence borrowers from a loan shark are less likely to engage in   
moral hazard.

1. If you are an employer, what kinds of moral hazard problems might you worry about with your employees?

You would be concerned that they would carry out their responsibilities – removing a poorly performing employee is an expensive endeavor. They might steal or commit fraud.

1. If there were no asymmetry in the information that a borrower and a lender had, could there still be a moral hazard problem?

Yes, because even if you know that a borrower is taking actions that might jeopardize paying off the loan, you must still stop the borrower from doing so. Because that may be costly, you may not spend the time and effort to reduce moral hazard, and so moral hazard remains a problem.

1. “In a world without information and transaction costs, financial intermediaries would not exist.” Is this statement true, false or uncertain? Explain your answer.

By looking at the three reasons for financial intermediaries to exist one can see that this deals with the transaction costs and adverse selection issues. Risk sharing may still be an issue. A small investor may not be able to build a well-diversified portfolio and thus a financial intermediary may be necessary to construct this for him.

1. Why might you be willing to make a loan to your neighbor by putting funds in a savings account earning a 5% interest rate at the bank and having the bank lend her the funds at a 10% interest rate rather than lend her the funds yourself?

Because the costs of making the loan to your neighbor are high (legal fees, fees for a credit check, and so on), you will probably not be able to earn 5% on the loan after your expenses even though it has a 10% interest rate. You are better off depositing your savings with a financial intermediary and earning 5% interest. In addition, you are likely to bear less risk by depositing your savings at the bank rather than lending them to your neighbor.

1. How does risk sharing benefit both financial intermediaries and private investors?

Risk sharing benefits financial intermediaries because they are able to earn a spread between the returns they earn on risky assets and they returns they pay on the less-risky assets they sell. Investors benefit because they are able to invest in a better diversified portfolio then would otherwise be available.

1. Discuss some of the manifestations of the globalization of world capital markets.

Increasing globalization of financial intermediaries such as banks and other institutions. Interconnectedness of financial markets such as stock markets etc (one can observe a high degree of correlation between these). Also disruption in a major foreign market can cause disruption in the US and vice versa.

## Extra Questions:

* Think about investments on [www.prosper.com](http://www.prosper.com).
  + Quite a bit of information can be found either on the website or in the prospectus - http://www.prosper.com/Downloads/Legal/Prosper\_Prospectus\_2012-07-19.pdf
  + What potential returns are described on the website?
  + Returns range from 5.24% for AA rated borrowers to 14.75% for HR rated borrowers. Lending is for periods of 1, 3 or 5 years with only 3 years being available to HR.
  + What are the significant risks to investing?
  + Prosper.com’s prospectus from pages 22-45 lists many different risks. Here are several - there is interest rate risk. If you lend at 7% and interest rates go to 10% then on a present value basis you will have lost money. There is credit risk – first you are lending on an unsecured basis, second it is not clear what happens to your loan if Prosper.com goes under. There is asymmetric information risk – the information that the borrower gives to take out the loan is not verified. There is liquidity risk. There is a secondary market but it is not clear whether it is liquid. There is also prepayment risk – the risk that a borrower pays back the loan early. To think about this risk imagine that you have lent money at 10% and then interest rates fall to 5% halfway through the life of the loan. If the borrower prepays the loan then you will only be able to reinvest the money at a similar yield by taking on additional risk.
  + When investing through the website what does one buy?
  + An investor is buying a “Borrower Payment Dependent Note.” This information can be found in the prospectus. Prosper.com will issue the notes
  + On the website are large numbers of borrowers seeking funds. What alternatives might these borrowers have for raising funds? What reasons might drive them to raise funds here over those alternatives?
  + Several main alternatives to Prosper.com would be other peer-2-peer lending sites, banks, credit unions and other retail based depository institutions and credit cards. A rational borrower would investigate all of these options as well as propser.com for raising funds for their purposes. With this assumption it could be that funds are more expensive or unavailable through these other sources or that propser.com is a cheaper source of funds than these other sources.
  + Is there a secondary market for an investment on Prosper.com? How does it work?
  + Yes, Prosper.com advertises a service they call FOLIO in which one can list notes that you own and want to sell.
* On the website [www.vanguard.com](http://www.vanguard.com) look up information about the fund VFISX. Within the summary prospectus find:
  + Over the past 10 years what are the max and min annual return for this fund?
  + Max is 7.89% in 2007 and min is 1.03% in 2004.
  + What are the significant risks for investing in this fund?
  + Income risk – the risk that changes in market rates will reduce the income available to the fund. Interest rate risk – this risk that changes in interest rates will cause bonds held in the fund to change in value. Manager risk – the risk that poor security selection on the part of the manager will cause poor investment returns relative to other potential investments.