

Problem Set #1 (due at 1100 am on August 14, 2007)

1. For each of the following, compute the real interest rate. (15 points)
 - a. $i = 4\%$; $\pi^e = 2\%$
 - b. $i = 15\%$; $\pi^e = 11\%$
 - c. $i = 54\%$; $\pi^e = 46\%$

2. You want to save \$2000 today for retirement in 40 years. You have to choose between two plans: (30 points)
 - i) Pay no taxes today, put the money in an interest-yielding account and pay taxes equal to 25% of the total amount withdrawn at retirement. (IRA in U.S.A.)
 - ii) Pay taxes equivalent to 20% of the investment amount today, put the remainder in an interest-yielding account, and pay no taxes when you withdraw your funds at retirement. (Roth IRA in U.S.A.)
 - a. What is the expected present discounted value of each these plans if the interest rate is 1%? 10%?
 - b. Which plan would you pick in each case?

3. Using the *IS-LM* model, graphically illustrate and explain what effect an increase in money growth will have on output, the nominal interest rate, and the real interest rate in the short run. (25 points)

4. Using the *IS-LM* model, determine the impact of each of the following on stock prices. (If the effect is ambiguous, explain what additional information would be needed to reach a conclusion.) (30 points)
 - a) An unexpected expansionary monetary policy with no change in fiscal policy
 - b) A fully expected expansionary monetary policy with no change in fiscal policy.