AGEC 350  
Lecture # 22 due 11/20/2009

Questions based on the Berck and Helfand (B&H) chapter 15

1. Suppose your principal is $600 and the interest rate is 7% per year. What are each of the following:
   - Interest payment:
   - Present value:
   - Future value after 2 years:

2. If you have $600 invested at 7% interest, it would earn $42 in the first year, meaning that you would have $642 after one year. If you left the money in the bank, you would have $686.94 after 2 years. How much would you have after 4 years?

3. What is the present value of $786 to be received in 4 years if you discount at the rate of 7% per year?

4. What is meant by “the market rate of interest”?

5. Why does a higher interest rate change the decision to invest in energy efficiency?

6. If a decision today can lead to $1000 in benefits 100 years in the future and we discount future benefits at a rate of 8%, the value today is only 45¢. Using this example and the fact that what we do today to address climate change may not yield benefits for many many years, how does discounting create ethical dilemmas?

7. What is the difference between real and nominal interest rates? Which would we want to use when evaluating a public policy?

8. What is meant by the term risk premium and how does it affect discount rates?

9. What are the arguments for different interest rates for the evaluation of public projects?