

Exercise 3

Please do Questions 1 to 5 from AJ Chayun's Exercises

Consumption under Uncertainty

6. What is the difference between the expected value of a lottery and the expected utility of a lottery?
7. You have a utility function given by $U = 2I + 10\sqrt{I}$. You are considering two job opportunities. The first pays a salary of \$40,000 for sure. The other pays a base salary of \$20,000, but offers the possibility of a \$40,000 bonus on top of your base salary (\$60,000 in total). You believe that there is a 0.50 probability that you will earn the bonus.
 - a. What is the expected salary under each offer?
 - b. Which offer gives you the higher expected utility?
 - c. Based on your answer to (a) and (b), are you risk averse?
8. Consider Lottery ABC, where there is a 0.90 chance that you receive a payoff of \$0 and a 0.10 chance that you receive a payoff of \$400. Suppose that your utility function is $U = \sqrt{I}$. Compute the risk premium of the lottery.