

Sample Bond and Stock Problems

1. Suppose someone will pay you \$50 a year for ten years. However, the first payment of \$50 won't start until 8 years from now. If interest rates are 9% (expressed as an effective annual rate), what is the value of this today?
2. Suppose someone will pay you \$50 a year for ten years. However, the first payment of \$50 won't start until 8 years and three months from now. If interest rates are 9% (expressed as an effective annual rate), what is the value of this today?
3. Suppose someone will pay you \$50 a year for ten years. However, the first payment of \$50 won't start until 8 years and three months from now. If interest rates are 9%, compounded monthly, what is the value of this today?
4. Suppose someone will pay you \$50 a year for ten years, with the first payment three months from now. If interest rates are 9%, compounded monthly, what is the value of this today?

5. One month ago, MAG Corp. recorded earnings of \$2.00 and paid a \$1.50 dividend. Assuming MAG Corp. pays its dividends quarterly, what is the most you would pay for MAG Corp if the appropriate discount rate is 12%, compounded monthly and the return on equity of the firm is 20% (expressed as an effective annual yield)?

6. What is the price of a nine-year 8% annual coupon bond with a face value of \$1000 if the appropriate discount rate is 9% (effective annual rate)?

7. What is the price of a nine-year 8% semi-annual coupon bond with a face value of \$1000 if the appropriate discount rate is 9% (effective annual rate)?

8. What is the price of an 8% semi-annual coupon bond that matures 9 years and two months from now with a face value of \$1000 if the appropriate discount rate is 9% (effective annual rate)?