

## Problems

Answers Appear in Appendix B

## EASY PROBLEMS 1–6

- (5-1)** Jackson Corporation's bonds have 12 years remaining to maturity. Interest is paid annually, the bonds have a \$1,000 par value, and the coupon interest rate is 8%. The bonds have a yield to maturity of 9%. What is the current market price of these bonds?  
Bond Valuation with Annual Payments
- (5-2)** Wilson Wonders's bonds have 12 years remaining to maturity. Interest is paid annually, the bonds have a \$1,000 par value, and the coupon interest rate is 10%. The bonds sell at a price of \$850. What is their yield to maturity?  
Yield to Maturity for Annual Payments
- (5-3)** Heath Foods's bonds have 7 years remaining to maturity. The bonds have a face value of \$1,000 and a yield to maturity of 8%. They pay interest annually and have a 9% coupon rate. What is their current yield?  
Current Yield for Annual Payments
- (5-4)** The real risk-free rate of interest is 4%. Inflation is expected to be 2% this year and 4% during the next 2 years. Assume that the maturity risk premium is zero. What is the yield on 2-year Treasury securities? What is the yield on 3-year Treasury securities?  
Determinant of Interest Rates
- (5-5)** A Treasury bond that matures in 10 years has a yield of 6%. A 10-year corporate bond has a yield of 9%. Assume that the liquidity premium on the corporate bond is 0.5%. What is the default risk premium on the corporate bond?  
Default Risk Premium
- (5-6)** The real risk-free rate is 3%, and inflation is expected to be 3% for the next 2 years. A 2-year Treasury security yields 6.3%. What is the maturity risk premium for the 2-year security?  
Maturity Risk Premium

## INTERMEDIATE

## PROBLEMS 7–20

- (5-7)** Renfro Rentals has issued bonds that have a 10% coupon rate, payable semiannually. The bonds mature in 8 years, have a face value of \$1,000, and a yield to maturity of 8.5%. What is the price of the bonds?  
Bond Valuation with Semiannual Payments
- (5-8)** Thatcher Corporation's bonds will mature in 10 years. The bonds have a face value of \$1,000 and an 8% coupon rate, paid semiannually. The price of the bonds is \$1,100. The bonds are callable in 5 years at a call price of \$1,050. What is their yield to maturity? What is their yield to call?  
Yield to Maturity and Call with Semiannual Payments
- (5-9)** The Garraty Company has two bond issues outstanding. Both bonds pay \$100 annual interest plus \$1,000 at maturity. Bond L has a maturity of 15 years, and Bond S has a maturity of 1 year.
- What will be the value of each of these bonds when the going rate of interest is (1) 5%, (2) 8%, and (3) 12%? Assume that there is only one more interest payment to be made on Bond S.
  - Why does the longer-term (15-year) bond fluctuate more when interest rates change than does the shorter-term bond (1 year)?
- (5-10)** The Brownstone Corporation's bonds have 5 years remaining to maturity. Interest is paid annually, the bonds have a \$1,000 par value, and the coupon interest rate is 9%.  
Yield to Maturity and Required Returns