



FIN 366: INVESTMENTS
MANAGING BOND PORTFOLIOS
CRITICAL THINKING & CONCEPTUAL QUESTIONS

1. Everything else held constant which of the bonds in each of these pairs would you expect to be offered at a lower price, assuming they all pay no coupons? (Hint: if a zero coupon bond is offered at a lower price, is its yield *higher* or *lower* relative to a zero coupon offered at a higher price?)
 - a. Senior vs. Subordinate
 - b. Debenture vs. Collateralized
 - c. Speculative vs. Investment Grade
2. Examine the table below. Which of the feature(s) listed help explain why the Richmond Bonds have a lower coupon rate than the Westhampton Bonds?

	Richmond	Westhampton
Coupon	8%	12%
Collateral	Firm land and property	None
Callable	Not callable	In 10 years
Puttable	Extendable for 3 years	May not be extended
Credit Rating	BBB+	AA
Senior/Subordinate	Senior	Subordinate

3. Why would a single firm have multiple credit ratings on its different bonds?
4. For each pair below, choose which one you think is more likely to have the higher credit rating, everything else held constant:
 - a. A firm with leverage significantly above the industry average vs. a firm with leverage significantly below the industry average
 - b. A subordinate debt issue vs. a senior debt issue
 - c. A secured vs. an unsecured bond issue
 - d. An investment grade vs. a speculative grade bond
5. Would you rather be an equity holder or a subordinated debt holder of a firm in the event of that firm's liquidation following bankruptcy?
6. You predict interest rates are about to fall significantly. Which of the bonds below would be best to hold prior to the interest rate change (assuming you want a high *capital gain* on your bond?)
 - a. Low coupon with a long maturity
 - b. High coupon with a short maturity
 - c. High coupon with a long maturity
 - d. Zero coupon with a long maturity

7. Is the decrease in a bond's price due to an increase in its YTM *more* or *less* than the increase in a bond's price due to a decrease in the YTM of the same magnitude?
8. Are there generally cash flows sent to the bondholder at a bond's duration? *Can* there be a cash flows to the bondholder at the time of a bond's duration?
9. What would be the duration of a zero-coupon bond? (Hint: try this out with hypothetical values in your calculator.)
10. What would doubling a bond's time to maturity mean for its sensitivity to interest rates?
11. Why do we care to calculate a bond's "effective maturity"? Doesn't the indenture tell us when it matures?
12. Everything else held constant, is a bond's duration higher or lower if its coupons are lower? (Hint: try this out with hypothetical values.)
13. What is the goal of duration matching? In what instances would it be useful? What types of firms might find it useful?
14. **CHALLENGE** Sketch a simple **bond convexity graph** by researching what these graphs look like online. What are its axes? What does it show? Demonstrate on the graph the non-linear relationship between price changes and interest rate changes.
15. **CHALLENGE** Look up the formula for bond convexity online. What are its inputs? By looking at the formula, what increases a bond's convexity? Is an increase in convexity a good thing?