

FUNDING INVESTMENTS
FINANCE 238/738, D. Musto
FIRST TEST

Your Name: _____

Section you are registered for: _____

80 Minutes
80 Points

FUNDING INVESTMENTS
FINANCE 238/738, Spring 2002, Prof. Musto
Class 13 – First Test
80 Minutes / 80 Points

1. In the photocopy from the *WSJ* there is a bond listed as “13 7/8 May 11.” This bond matures 5/15/11 but is callable at par on any coupon date starting 5/15/06.
 - a. (5 pts) Calculate the ask price of the synthetic bond with the same coupon, maturing on the *second* date the bond is callable, i.e. 11/15/06 (don’t worry about accrued interest).
 - b. (5 pts) Suppose the synthetic bond sold for less than the callable. Would there be an arbitrage? What considerations are important, and why?
2. (10 pts) How can capital structure discourage maximizing NPV? What factors make a company particularly susceptible to this problem?
3. (10 pts) Kmart has eight senior unsecured bonds outstanding, with maturities ranging from 12/1/04 to 2/1/23, and with principal amounts ranging from \$100MM to \$400MM. You want to exert some influence on Kmart by buying a substantial percentage of one of these bonds. What would be your source of influence, and how can Kmart limit this influence?
4. (10 pts) A firm worth \$500MM has two debt issues outstanding: a junior bond with principal amount \$200MM and a senior bond with principal amount \$100MM, both paying no coupons and maturing in five years. What option contract represents the difference between the senior bond and a five-year Treasury STRIP? Be precise (but don’t bother pricing it, which you obviously can’t from the information given).
5. (10 pts) You’re taking a job at a risky firm; its shares now trade at \$10, but a year from now they’ll be either \$100, with probability 0.1, or \$5, with probability 0.9. You are given the choice between two pay packages: package *A* pays \$50 in a year if the stock price goes to 100 (and 0 otherwise), and package *B* pays \$3 now, and nothing later. You can borrow or lend for the year at 2%. Which package is better?
6. (10 pts) Here’s a quote from a 2/16/02 *Economist* article about rating agencies: “Their meticulous reports giving ratings for corporate bonds are designed to give an accurate picture of the bonds’ riskiness and, ultimately, the probability of default.” Relate this statement to the evidence.

7. This Friday is the record date for \$0.30/share dividend from Utilicorp, which is trading for \$20/share. Utilicorp has a Dividend Reinvestment Plan with a discount of 5%. You have an opportunity to borrow 10,000 shares of Utilicorp, with no margin (i.e. cash collateral = share value), from Friday to Monday (i.e. a 3-day loan), for a zero rebate. You would have to reimburse the cash value of the dividend. The current overnight interest rate is 2% (Assume the stock price is constant at \$20).
- (5 pts) What trade can you put on, and what is the profit, not counting the cost of the loan?
 - (5 pts) What is the profit, *net* of the cost of the loan?
8. (10 pts) What is the buoying-up problem with voluntary bond exchange offers, and how can prepackaged bankruptcy resolve it?