

NAME: _____

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Financial Markets and Institutions

First Midterm Exam

You have 70 minutes to complete this 100-point exam. Please write clearly and legibly. Graphs must be completely labeled to receive full credit. Show your calculations for partial credit. Good luck!

1. (20 Points). Match each finance term below with the 1 letter preceding its correct definition.

___ reinvestment risk	___ par value
___ spot rate	___ central bank
___ adverse selection	___ market segmentation theory
___ mean reversion	___ underwriting
___ January effect	___ stock

A. Stocks that have performed well recently are more likely to perform poorly in the future, and stocks that have performed poorly recently are more likely to perform well in the future.

B. Observation that equity prices rise in January above gains in their intrinsic values.

C. The adverse effect on portfolio performance of selecting securities with poor risk/reward fundamentals.

D. An amount repaid on a coupon bond's maturity date.

E. An observed interest rate.

F. Effect in January of rapid equity accumulation consistent with efficient markets theory.

G. Purchase of Treasury securities on secondary markets by commercial banks.

H. Sees markets for bonds of different maturities as entirely segmented.

J. Ability of term structure theory to spot inconsistencies in interest rates.

K. Effect on unemployment rate of layoffs that occur in January due to seasonal factors.

L. Equivalent value of a risky bond to one with zero default and liquidity risk.

M. A security that grants a share of ownership of a corporation.

N. Theory that bonds which have high default risk will eventually revert to the mean yield

O. Theory that bond yields depend in part upon liquidity premiums and expectations.

P. An investment bank's actions in issuing securities on the primary market.

Q. The national government's bank; among other things, it controls the money supply.

R. When asymmetric information hinders transactions between sellers and buyers.

S. A debt security that promises to make payments over a period of time.

T. Main office of a bank that has many branches.

U. Occurs because the proceeds of short term bonds are reinvested at uncertain interest rates.

2. (30 Total Points on this Page) Choose FIVE of the six statements below. Indicate whether each of the five is **true** or **false**. Explain each of your indications in one or two sentences each. (Your scores depend entirely upon your explanations)

Prices for long term bonds are more volatile than prices for short term bonds.

The New York Stock Exchange is an example of a primary market.

As the dollar weakens on foreign exchange markets, it becomes less attractive for foreigners to vacation in the U.S.

Evidence that stock prices sometimes fall when a firm announces bad news contradicts the efficient markets hypothesis.

The term structure of interest rates describes how interest rates change over the years.

An unexpected increase in the highest income tax rate would cause municipal bond prices to fall and Treasury bond prices to rise.

3. (32 points) Today you buy a bond that matures exactly 2 years from now. You will receive two annual coupon payments, the first exactly one year from now. The bond has a par value of \$500 and a coupon rate of 10%. The yield to maturity of your bond is 4.5%. Today the yield to maturity on 1-year coupon bonds is 4%. The risk premium today for holding 2-year coupon bonds is .35%.

a) How much did you pay for the bond?

b) Use liquidity premium theory to forecast the 1-year forward rate on 1-year coupon bonds.

c) Calculate the duration of your bond.

d) Calculate your rate of return if you sell your bond exactly 1 year from now (immediately after receiving a coupon payment) for \$525.

4. (18 points) You are considering entering into a free contract that guarantees you the right to sell a bond for \$1000, immediately after it pays its annual coupon of \$200. Using all available information, you determine using the best possible methods that, based upon the intrinsic value of the bond, that the equilibrium 1-year rate of return on the bond is 15%. The bond currently sells for \$1050. (This bond has no default or liquidity risk.)

a) Should you enter into the contract? Explain, and support your explanation with at least 1 calculation. (Your score depends entirely upon your explanation.)

b) I know that you are offered the free contract. But according to efficient markets theory, how much should the contract that you are offered sell for? Explain, and support your answer with at least 1 calculation. (Assume that the \$1050 bond price is efficient.)