

IN-CLASS MULTIPLE CHOICE TEST

MODULE: Fixed Income Investment

Date/Hour: APRIL, 29th, 2013 (16.30-17.00)

ALL QUESTIONS CARRY EQUAL MARKS

The exam paper cannot be removed from the exam room

STUDENT NAME _____

STUDENT NUMBER _____

I am not aware of any medical or other extenuating circumstances that would impair my performance in this examination

SIGNATURE _____

Question 1

All other things being equal, which one of the following bonds will have the greatest volatility?

- a. 10-year, 5% coupon bond.
- b. 30-year, 5% coupon bond.
- c. 5-year, 10% coupon bond.
- d. 30-year, 10% coupon bond.

Question 2

The value of any bond should be:

- a. The sum of the entire coupon receipts as well the principal repayment at the bond's maturity
- b. The present value of the entire coupon receipts as well the principal repayment at the bond's maturity
- c. The future value of the entire coupon receipts as well the principal repayment at the bond's maturity
- d. None of the above

Question 3

To strip a bond, a dealer would buy the:

- a. Bond and a call on the bond while selling a put on the bond.
- b. Bond and sell each coupon payment and the principal as zero coupon bonds
- c. Individual coupons and principal zeros to put them back together and resell the whole bond.
- d. Bond and a put on the bond while selling a call on the bond.

Question 4

An investor purchases a 10 year, 5% coupon bond at a yield-to-maturity of 7% for a price of 859.53. One year later the yield-to-maturity of the bond is 6.0%. The price of the bond will be:

- a. Less than 859.53
- b. 859.53
- c. More than 859.53 but less than the par/face value
- d. at premium (above 1000)

Question 5

Reinvestment risk tends to be highest for:

- a. Low-coupon straight bonds
- b. High-coupon amortizing securities
- c. High-coupon straight bonds
- d. Low-coupon amortizing securities

Question 6

High downgrade risk in a bond refers to the probability:

- a. The credit spread will decrease.
- b. The bond will not default.
- c. The domestic inflation rate will change.
- d. A rating agency will lower the bond's credit rating.

Question 7

In which of the following situations would a portfolio's effective duration be *least likely* to produce accurate estimates of a bond portfolio's price change.

- a. The bonds have long maturities and high durations.
- b. Long-term interest rates fall and short-term interest rates rise.
- c. The bonds have short maturities and low duration.
- d. The yield curve moves upwards in a parallel shift.

Question 8

Identify the *most accurate* statement concerning duration.

- a. For a zero coupon bonds, duration is the same as term to maturity.
- b. The higher the coupon, the greater the duration.
- c. The difference in duration between two similar coupon-paying bonds maturing in more than 15 years is quite high.
- d. For coupon bonds, duration is the same as term to maturity.

Question 9

A 5% semi-annual coupon bond is priced at \$868.08 for a 9% yield-to-maturity (YTM). Convexity is 14.55. If YTM increases to 10.5%, how much of the percentage change in price is due to convexity?

- a. 1.13 percent
- b. 0.327 percent
- c. 0.537 percent
- d. 2.15 percent

Question 10

Which of the following explanations correctly states how modified duration should be interpreted?

- a. Modified duration is the weighted average time an investor has to wait to get their money back in present value terms.
- b. Modified duration is the change in value expected in the bond if interest rates change by 1%.
- c. Modified duration represents how far the bond's price yield relationship diverges from a pure linear relationship
- d. None of the above

Question 11

A bond currently sells at \$925 and has a duration of 3.65. Compute the approximate percentage price change of the bond for a 75 basis point decrease in rates.

- a. 2.74%
- b. -2.53%
- c. -2.74%
- d. 2.53%

Question 12

A bond that gives the issuer the right to repurchase in the future at a predetermined price is:

- a. A puttable bond
- b. A callable bond
- c. A purchasable bond
- d. Called an option bond

Question 13

You find that the yield on a 4-year bond is 8% while that of a 3-year bond is 7%. What should be the yield on a 1-year bond beginning 3 years from now as predicted by the expectations theory?

- a. 1.00%
- b. 7.50%
- c. 9.34%
- d. 11.06%

Question 14

Which of the following events would make it more likely that a company would choose to call its outstanding callable bonds?

- a. Market interest rates rise sharply
- b. The company's bonds are downgraded
- c. Market interest rates decline sharply
- d. The company's financial situation deteriorates significantly

Question 15

If interest rates in all maturities increase by one percent what will happen to the price of these bonds?

- a. The price of shorter maturity bond and the long maturity bond will fall by the same percentage.
- b. The price of the shorter maturity bond and the longer maturity bond will rise by the same percentage.
- c. The price of shorter maturity bond will fall by a smaller percentage than the fall in price of the longer maturity bond.
- d. The price of the shorter maturity bond will rise by a smaller percentage than the rise in price of the longer maturity bond.

Question 16

Identify the major risk associated to an investor who plans to hold an investment for five years, purchasing an AA sovereign bond (with dollar denominated cash flow payments) versus purchasing a US corporate bond with a B rating.

- a. exchange rate risk
- b. interest rate risk
- c. credit risk
- d. liquidity risk

Question 17

Assume the following Treasury spot rates:

Period	Years to Maturity	Spot Rate
1	0.5	5.0%
2	1.0	5.4%
3	1.5	5.8%
4	2.0	6.4%
5	2.5	7.0%
6	3.0	7.2%
7	3.5	7.4%
8	4.0	7.8%

The 6-month forward rate three years from now is:

- a. 7.3000%
- b. 8.6041%.
- c. 7.6341%
- d. None of above

Question 18

When interest rates raise a callable bond price is expected in comparison to an option-free bond to:

- a. increase less
- b. decline less
- c. decline more
- d. increase more

Question 19

One of the reasons for the presence of market risk with classical immunization is:

- a. The market interest rates decline sharply and classical immunization only hedge for a small decline in interest rates
- b. Not possible to construct a bond portfolio that match multiple liabilities duration.
- c. The shifts in the yield curve are not parallel
- d. The shifts in the yield curve are parallel

Question 20

One of the biggest risks in cash-flow matching strategies is:

- a. Market interest rates can decline sharply
- b. The yield curve moves downwards in a non-parallel shift.
- c. Callable bonds can be called.
- d. Puttable bonds cannot be sold back to the issuer.

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STUDENT NAME _____

STUDENT NUMBER _____

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END of ASSESSMENT