2018 CFA® Exam Prep

Level III

Essay Exam Completion Portfolio® for 2014

This document was developed by IFT and should be used in conjunction with the **2014** Level III essay exam published by CFA Institute.

The following questions from the 2014 Level III essay exam are no longer relevant for 2018:

- Question 5, Part C. – NOT INCLUDED IN THIS SAMPLE
- **Question 7 – THIS IS INCLUDED**
- Question 8—NOT INCLUDED IN THIS SAMPLE

Instructions:

- Print the 2014 Level III essay exam.
- Remove or cross out questions that are no longer relevant.
- Replace them with questions in this document.
- Give yourself three hours and take the exam.

QUESTION 7 HAS THREE PARTS (A, B, C) FOR A TOTAL OF 11 MINUTES.

Kelly Liu is a fixed-income portfolio manager at an investments firm based in UK. Her portfolio consists of government bonds and investment-grade corporate bonds. Liu wants to improve the risk-return profile of her portfolio by investing in higher-yield bonds. She discusses the composition of her portfolio with Andy McDormand, a senior analyst at the firm. McDormand informs Liu about a 10-year bond issued by CYS Corporation trading at a price of 91.70. It has a modified duration of 8.54, and a spread duration of 8.54. For this bond, McDormand speculates on the price change if the interest rates decrease by 25 bps and its credit spread increases by 15 bps.

A. Calculate the CYS Corporation bond's price change (in percentage terms) based on McDormand's interest rate decrease and credit spread increase speculations. **Show** your calculations.

(4 minutes)

McDormand further makes the following statements on the differences between investment-grade and high-yield bonds.

<u>Statement 1</u>: When default rates are high and credit spreads are relatively wide, high-yield bonds tend to perform more like investment grade bonds.

<u>Statement 2</u>: Investment grade bonds have greater exposure to interest rate risk than high yield bonds.

<u>Statement 3</u>: High yield bonds have greater exposure to credit risk than investment grade bonds.

B. Determine which statement about the differences between investment-grade bonds and high-yield bonds is inaccurate. **Justify** your response.

(3 minutes)

Liu then explores the opportunities in structured financial instruments primarily in collateralized debt obligations (CDOs). She is evaluating a CDO with the following structure – a senior tranche and two subordinated tranches – a mezzanine tranche and an equity tranche. She believes that the correlation of expected defaults on the CDO collateral of the senior and subordinated tranches will increase.

C. Determine, based on this belief, if the mezzanine tranche is more desirable or less desirable relative to the senior and equity tranches. **Justify** your response.

(4 minutes)

Answer Question 7-A on This Page

Calculate the CYS Corporation bond's price change (in percentage terms) based on McDormand's interest rate decrease and credit spread increase speculations. **Show** your calculations.

Answer Question 7-B on This Page

Determine which statement about the differences between investment-grade bonds and high-yield bonds is inaccurate. (circle one)		
Statement 1	Statement 2	Statement 3
Justify your response.		

Answer Question 7-C on This Page

Determine, based on this belief, if the mezzanine tranche is more desirable or less desirable relative to the senior and equity tranches. (circle one)
More desirable   Less desirable
Justify your response.

Guideline Answers

Answer Question 7-A on This Page

Calculate the CYS Corporation bond's price change (in percentage terms) based on McDormand's interest rate decrease and credit spread increase speculations. **Show** your calculations.

A decrease in interest rates results in an increase in the bond price. An increase in the credit spread results in a decrease in the bond price. For the CYS bond, using its modified duration of 8.54, the effect of the 25 bps decrease in interest rates leads to an approximate percentage price change of –8.54 × –0.0025 = 2.135%. The spread duration shows the effect of the 15 bps increase in the credit spread. The approximate percentage price change resulting from the increase in the credit spread is –8.54 × 0.0015 = –1.281%. The combined effect is a total change of 2.135% –1.281% = 0.854%, or a price increase of 0.854%. Therefore, the price will be increased to $91.70 \times (1 + 0.00854) = 92.4831$.

Reference: *Fixed-Income Active Management: Credit Strategies, Section 2.2. LO.a.*

Answer Question 7-B on This Page

Determine which statement about the differences between investment-grade bonds and high-yield bonds is inaccurate. (circle one)		
Statement 1	Statement 2	Statement 3
Justify your response.		

Investment-grade corporate bonds have meaningful interest rate sensitivity, and therefore, investment-grade portfolio managers usually manage their portfolio durations and yield curve exposures closely.

In contrast, high-yield portfolio managers are more likely to focus on credit risk and less likely to focus on interest rate and yield curve dynamics.

However, when default losses are low and credit spreads are relatively tight, high-yield bonds tend to behave more like investment-grade bonds—that is, with greater interest rate sensitivity.

Reference: *Fixed-Income Active Management: Credit Strategies, Section 2. LO.a.*

Answer Question 7-C on This Page

Determine, based on this belief, if the mezzanine tranche is more desirable or less desirable relative to the senior and equity tranches. (circle one)
More desirable   Less desirable
Justify your response.
The correlation of expected defaults on a CDO's collateral affects the relative value between the senior and subordinated tranches of the CDO. As correlations increase, the values of the mezzanine tranches usually increase relative to the values of the senior and equity tranches.

Reference: *Fixed-Income Active Management: Credit Strategies, Section 7. LO.h.*