

## CHAPTER 44

# FUNDAMENTALS OF CREDIT ANALYSIS

1. (C) operating lease obligations.

**Explanation**

Credit analysts should add to a company's total debt its obligations such as operating lease payments and underfunded pension plans. A net pension asset results from an overfunded pension plan. A credit analyst should include a debt guarantee in the total obligations of the company that is making the guarantee.

(Study Session 14, Module 44.2, LOS 44.h)

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2. (A) amount a bondholder will lose if the issuer defaults.

**Explanation**

Loss severity is the money amount or percentage of a bond's value a bondholder will lose if the issuer defaults. The percentage of a bond's value a bondholder will receive if the issuer defaults is the recovery rate.

(Study Session 14, Module 44.1, LOS 44.b)

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3. (C) ¥759 billion.

**Explanation**

FFO is defined as net income from continuing operations plus depreciation, amortization, deferred taxes, and other noncash items.

$FFO = ¥503 + ¥256 = ¥759$  billion. (Study Session 14, Module 44.2, LOS 44.g)

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4. (A) character.

**Explanation**

Character refers to the quality of management. Character analysis includes soundness of strategy, management's track record, accounting policies and tax strategies, fraud and malfeasance record, and prior treatment of bondholders.

Capacity refers to the ability of the borrower to make its debt payments on time. Covenants are the terms and conditions of lending agreements with which the issuer must comply.

(Study Session 14, Module 44.1, LOS 44.f)

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**5. (C) market liquidity risk.**

**Explanation**

Market liquidity risk is the risk of receiving less than market value when selling a bond and is reflected in the size of the bid-ask spreads. Market liquidity risk is greater for the bonds of less creditworthy issuers and for the bonds of smaller issuers with relatively little publicly traded debt. Loss severity and recovery rate refer to defaults.

(Study Session 14, Module 44.1, LOS 44.a)

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**6. (B) Collateral.**

**Explanation**

These items are part of analyzing a borrower's collateral. Analyzing depreciation expense and equity market capitalization can provide insight into the quality of a firm's fixed assets. Intellectual capital and intangible assets can potentially be used as collateral if they can be separated from the firm and sold. Capacity refers to a borrower's ability to repay its obligations. Analysis of capacity focuses on industry structure and company fundamentals. Covenants are terms and conditions of a bond issue

(Study Session 14, Module 44.1, LOS 44.f)

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**7. (C) Revenue bonds have lower yields than general obligation bonds because they are backed by specific projects..**

**Explanation**

General obligation bonds are backed by the full faith, credit, and taxing power of the issuer and thus tend to have lower yields than revenue bonds.

(Study Session 14, Module 44.2, LOS 44.j)

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[SchweserNotes - Book 4](#)

8. (C) **weak.**

**Explanation**

Conditions that cause equity markets to weaken, such as poor economic growth, also tend to widen yield spreads in the bond market. Likewise, strong equity market performance tends to coincide with narrowing yield spreads. Yield spreads tend to narrow when equity markets are stable because investors "reaching for yield" increase their demand for bonds.

(Study Session 14, Module 44.2, LOS 44.i)

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9. (A) **credit ratings may change over time.**

**Explanation**

Credit ratings are not stable over time and bonds may be upgraded or downgraded during their lives. Market pricing typically leads changes in credit ratings. Default rates should be higher for lower-rated bonds if credit ratings are accurate.

(Study Session 14, Module 44.1, LOS 44.e)

**Related Material**

[Schweser Notes - Book 4](#)

10. (B) **investors increase their estimates of the recovery rate on the corporate bonds.**

**Explanation**

Yield spreads reflect the credit quality of bond issuers and the liquidity of the market for their bonds. Narrowing (decreasing) yield spreads reflect improving credit quality or more liquidity. Widening (increasing) yield spreads reflect deteriorating credit quality or less liquidity. Increased estimates of the recovery rate in the event of default represent an improvement in investors' assessment of the issuer's credit quality and are likely to narrow yield spreads on the issuer's bonds.

**For Further Reference:**

(Study Session 14, Module 44.1, LOS 44.a)

CFA® Program Curriculum, Volume 5, page 70

**Related Material**

[SchweserNotes - Book 4](#)

11. (C) **issuer credit rating reflects the borrower's overall creditworthiness.**

**Explanation**

An issuer credit rating reflects the borrower's overall creditworthiness. Senior unsecured debt is usually the basis for an issuer credit rating. Notching of issue ratings can be upward or downward relative to an issuer credit rating.

(Study Session 14, Module 44.1, LOS 44.d)

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[SchweserNotes - Book 4](#)

12. (A) **Event risk is difficult for rating agencies to assess.**

**Explanation**

Risks specific to a company or industry such as litigation, natural disasters, and corporate events are difficult to predict and incorporate into credit ratings. Changes in market prices tend to lead credit rating changes. Credit ratings can be revised after issuance.

(Study Session 14, Module 44.1, LOS 44.e)

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13. (A) **capacity and character.**

**Explanation**

The "four Cs" of credit analysis are capacity, collateral, covenants, and character.

(Study Session 14, Module 44.1, LOS 44.f)

**Related Material**

[SchweserNotes - Book 4](#)

14. (A) **debt-to-EBITDA ratio.**

**Explanation**

An increase in net income is likely a result from increases in earnings before interest, taxes, depreciation and amortization (EBITDA) and operating income. An increase in net income is also likely to result in an increase in funds from operations (FFO). The only ratio listed that has earnings or operating cash flow in the denominator is the debt-to-EBITDA ratio. As the denominator increases, the ratio will decrease.

(Study Session 14, Module 44.2, LOS 44.g)

**Related Material**

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15. (C) **the same as Joseph.**

**Explanation**

Steven's higher EBITDA/interest ratio is consistent with a higher credit rating than Joseph but its higher debt-to-capital ratio is consistent with a lower credit rating. Steven is most likely to have the same credit rating as Joseph.

(Study Session 14, Module 44.2, LOS 44.h)

**Related Material**

[SchweserNotes - Book 4](#)

16. (A) **widen.**

**Explanation**

With greater uncertainty, investors require a higher return for taking on more risk. Therefore credit spreads will widen.

(Study Session 14, Module 44.2, LOS 44.i)

**Related Material**

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**17. (A) only the bond rating and the recovery rate.**

**Explanation**

Credit risk is calculated with the probability of default (estimated from the bond rating) and the estimated recovery value should the bond default. Yield volatility is combined with duration to estimate the price risk of a bond.

(Study Session 14, Module 44.1, LOS 44.a)

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**18. (C) Purchase corporate bonds and sell Treasury bonds.**

**Explanation**

During periods of economic expansion corporate yield spreads generally narrow, reflecting decreased credit risk. If yield spreads narrow, the prices of corporate bonds increase relative to the prices of Treasuries. Selling lower-rated bonds and buying higher-rated bonds is an appropriate strategy if an economic contraction is anticipated.

(Study Session 14, Module 44.2, LOS 44.i)

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**19. (B) Yield spreads are likely to narrow.**

**Explanation**

Credit spreads tend to narrow in times of high demand for bonds and widen in times of low demand for bonds. Credit spreads tend to widen under excess supply conditions, such as large issuance in a short period of time, and narrow when supply is low.

(Study Session 14, Module 44.2, LOS 44.i)

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[SchweserNotes - Book 4](#)

**20. (A) 9.63.**

**Explanation**

First, compute the current price of the bond as:

$$FV = \$1,000; PMT = \$70; N = 18; I/Y = 8\%; CPT \rightarrow PV = -\$906.28$$

Next, change the yield by plus-or-minus 50 basis points.

Compute the price of the bond if rates rise by 50 basis points to 8.5% as:

$$FV = \$1,000; PMT = \$70; N = 18; WY = 8.5\%; CPT \rightarrow PV = -\$864.17$$

Then compute the price of the bond if rates fall by 50 basis points to 7.5% as:

$$FV = \$1,000; PMT = \$70; N = 18; WY = 7.5\%; CPT \rightarrow PV = -\$951.47$$

The formula for approximate modified duration is:

$$(V_- - V_+) / (2V_0 \Delta Y)$$

Therefore, approximate modified duration is:

$$(\$951.47 - \$864.17) / (2 \times \$906.28 \times 0.005) = 9.63.$$

(Study Session 14, Module 44.1, LOS 44.c)

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**21. (A) limiting the amount of cash paid to equity holders.**

**Explanation**

A restricted payment covenant protects lenders by limiting the amount of cash that may be paid to equity holders. Restricted subsidiaries' cash flows are used to service the debt of the parent or holding company and make a parent company's debt rank pari passu with the subsidiary's debt. A change of control put protects lenders by requiring the borrower to buy back its debt in the event of an acquisition.

(Study Session 14, Module 44.2, LOS 44.j)

**Related Material**

[Schweser Notes - Book 4](#)

**22. (B) 4.6x.**

**Explanation**

EBITDA = Operating income + depreciation + amortization

Year 1: 262 + 201 = €463 billion

Year 2: 361 + 212 = €573 billion

Year 3: 503 + 256 = €759 billion

Debt/EBITDA ratio:

Year 1: 2,590 / 463 = 5.6x

Year 2: 2,717 / 573 = 4.7x

Year 3: 2,650 / 759 = 3.5x

Three-year average = 4.6x.

**Related Material**

[SchweserNotes - Book 4](#)

**23. (B) has a lower priority of claims to a subsidiary's cash flows than the subsidiary's debt.**

**Explanation**

Structural subordination means that cash flows from a subsidiary are used to pay the subsidiary's debt before they may be paid to the parent company to service its debt. As a result, parent company debt is effectively subordinate to the subsidiary's debt.

(Study Session 14, Module 44.1, LOS 44.d)

**Related Material**

[SchweserNotes - Book 4](#)

**24. (C) high-yield corporate bonds.**

**Explanation**

Structural subordination is a credit consideration for corporate debt that results when a subsidiary has outstanding debt with a higher priority claim to the subsidiary's cash flows than the parent company's debt.

(Study Session 14, Module 44.2, LOS 44.j)

**Related Material**

[SchweserNotes - Book 4](#)

25. (A) **Series X, Series W, Series Y.**

**Explanation**

Series X is a revenue bond. Because they pay interest and principal only if revenues from the project they finance are sufficient, revenue bonds are typically riskier and therefore have higher market yields than general obligation bonds. Series Y is an insured bond. Municipal bond insurance typically results in a higher rating, and therefore a lower market yield, than an equivalent bond from the same municipal issuer. So of these three bonds, Series X should have the highest market yield and Series Y the lowest.

(Study Session 14, Module 44.2, LOS 44.j)

**Related Material**

[SchweserNotes - Book 4](#)

26 (C) **Senior unsecured debenture.**

**Explanation**

Secured bonds have a higher priority of claims than unsecured bonds. Collateral trust bonds and equipment trust certificates are secured bonds.

(Study Session 14, Module 44.1, LOS 44.c)

**Related Material**

[Schweser Notes - Book 4](#)

27. (A) **subordinated.**

**Explanation**

Subordinated debt has a lower priority of claims than unsecured debt. Second lien is a form of secured debt, which has a higher priority of claims than unsecured debt. "Pari passu" refers to the equal priority of claims for different debt issues in the same category.

**Related Material**

[Schweser Notes - Book 4](#)

28. (B) **Capacity.**

**Explanation**

Analyzing a corporate borrower's capacity to repay its debt obligations is similar to the top-down process used in equity analysis. Collateral analysis is evaluating the issuer's assets. Analyzing covenants involves reviewing the terms and conditions of lending agreements.

(Study Session 14, Module 44.1, LOS 44.f)

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**29. (A) The economy is going to contract.**

**Explanation**

If economic conditions are expected to get worse, then the probability that corporations may default increases and causes credit spreads to widen.

(Study Session 14, Module 44.2, LOS 44.i)

**Related Material**

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**30. (C) A2/A.**

**Explanation**

Both the priority of claims and the covenants suggest this issue has less credit risk than the issuer and therefore its issue credit rating may be notched upward. The issuer's credit rating (corporate family rating) is based on its senior unsecured debt. This issue is a secured bond, and therefore has a higher seniority ranking. A change of control put protects lenders by requiring the borrower to buy back its debt in the event of an acquisition. A limitation on liens limits the amount of secured debt that a borrower can carry. Both covenants reduce the credit risk of the issue.

(Study Session 14, Module 44.1, LOS 44.d)

**Related Material**

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**31. (C) lower.**

**Explanation**

For bonds with the same credit rating, default rates for municipal bonds have been lower than those of corporate bonds.

**For Further Reference:**

(Study Session 14, Module 44.2, LOS 44.j)

CFA® Program Curriculum, Volume 5, page 112

**Related Material**

[Schweser Notes - Book 4](#)

**32. (B) the market expects a downgrade to Bond Y's credit rating.**

**Explanation**

The market price difference can be accounted for by a lag in the bonds' credit rating behind the market's assessment of their creditworthiness. The bond market may be expecting a downgrade of Bond Y or an upgrade of Bond X.

If Bond X were callable it would have been riskier and therefore trade at a lower price than Bond Y.

If Bond Y were putable it would have been less risky and therefore trade at a higher price compared to Bond X.

(Study Session 14, Module 44.1, LOS 44.e)

**Related Material**

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33. (A) default rates on GOs are typically lower for same credit ratings.

**Explanation**

Municipal bonds usually have lower default rates than corporate bonds of the same credit ratings. GO bonds' creditworthiness is affected by economic downturns. Sovereigns can print money to repay debt, but municipalities cannot.

(Study Session 14, Module 44.2, LOS 44.j)

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