

Question #1 of 34

Credit scores and credit ratings are both:

- A) ordinal rankings.
- B) qualitative ratings.
- C) cardinal rankings.



Explanation

Credit scores and credit ratings are both ordinal rankings.

(Study Session 13, Module 37.3, LOS 37.b)

Related Material

[SchweserNotes - Book 4](#)

Question #2 of 34

To analyze the credit risk of a company with significant off-balance sheet liabilities, which credit model is *most appropriate*?

- A) Econometric model.
- B) Reduced form model.
- C) Structural model.



Explanation

Structural models are not suitable when the company has complex balance sheets or when there are significant off-balance sheet liabilities. Reduced form models would be appropriate in such a situation.

(Study Session 13, Module 37.4, LOS 37.d)

Related Material

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Question #3 of 34

Which of the following statements regarding financial institutions is *most likely* correct?

- A) The assets of most commercial banks consist of customer deposits which are often insured by the government to reduce the threat of a bank run. ✗
- B) Contagion is a fundamental to the definition of systemic risk. ✓
- C) All financial institutions are important to the economy, but only banks give rise to systemic risk. ✗

Explanation

Systemic risk is the risk of a disruption to financial services and has the potential to affect the economy as a whole via contagion. All financial institutions give rise to systemic risk. Deposits are the major liabilities for commercial banks (and are often insured by the government), the majority of assets are loans.

(Study Session 13, Module 37.7, LOS 37.h)

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Question #4 of 34

Under the structural model, owning equity in a company is equivalent to:

- A) short position in a put option on the assets of the company. ✗
- B) long position in a call option on the assets of the company. ✓
- C) long position in a call option on the firm's debt. ✗

Explanation

Equity investors have economic position equivalent to a long position in a call option on the assets of the company with a strike price equal to the face value of debt.

(Study Session 13, Module 37.4, LOS 37.d)

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Question #5 of 34

Upward sloping credit curve is *most likely* an indication of:

A) expectations of an economic expansion.



B) expectations of a recession.



C) upward sloping benchmark curve.



Explanation

Upward sloping credit curve indicates widening of spread as debt maturity increases. This would be consistent with expectations of higher probability of default (or lower recovery rate) in the longer-term, which would be consistent with expectations of a recession.

(Study Session 13, Module 37.6, LOS 37.g)

Related Material

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Question #6 of 34

Credit scores are *most likely* to be used for:

A) small businesses.



B) ABS.



C) sovereign bonds.



Explanation

Credit scores are used for individuals and small businesses. Credit ratings are used for corporate, quasi-government, and sovereign bonds as well as for secured debt (ABS).

(Study Session 13, Module 37.3, LOS 37.b)

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Question #7 of 34

A corporate bond has one year to maturity with a probability of default of 2.05% and a recovery rate of \$32.00 per \$100 par value. If an investor holds \$100,000 of par value, what is the expected loss?

A) \$656.



B) \$1,394.



C) \$2,050.



Explanation

Expected loss	= Probability of default × expected loss per \$ × par value
	= $0.0205 \times (1 - 0.32) \times \$100,000$
	= \$1,394

(Study Session 13, Module 37.1, LOS 37.a)

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Question #8 of 34

Under the structural model, owning risky debt is equivalent to a long position in a similar risk-free bond and a:

A) long position in a call option on the assets of the company.



B) long position in a put option on the assets of the company.



C) short position in a put option on the assets of the company.



Explanation

Risky debt ownership is economically equivalent to a long position in risk-free bond and a short position in a put option on the assets of the company.

(Study Session 13, Module 37.4, LOS 37.d)

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Question #9 of 34

Calculate the CVA on a 1.75%, 1-year, \$100 par annual pay bond with recovery rate of 70% and probability of default of 2%. Assume that the 1-year risk-free rate is 2%.

A) \$0.60



B) \$1.12



C) \$1.89

**Explanation**

Year	Exposure	LGD	PD	Expected Loss	DF	PV of Expected Loss
1	101.75	30.525	2.00%	0.611	0.9804	0.60

DF = PV of \$1 using risk-free rate = $1 / 1.02 = 0.9804$. LCD = Exposure \times (1 – recovery rate) = 101.75×0.30 . Expected loss = LGD \times PD = 30.525×0.02 .

(Study Session 13, Module 37.1, LOS 37.a)

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Question #10 of 34

5-year, 5% Zillon Corp. bonds currently trade at \$980 reflecting credit spread of 3%. A 5-year CDS for Zillon bonds has a coupon rate of 5%. The duration of the CDS = 4.

The upfront payment made/received by the protection buyer on a \$4 million notional CDS is *closest* to:

A) \$400,000 received by the protection buyer.



B) \$300,000 paid by the protection buyer.



C) \$320,000 received by the protection buyer.

**Explanation**

Upfront payment	= (CDS spread – CDS coupon) \times duration \times notional principal
	= $(0.03 - 0.05) \times 4 \times 4,000,000 = -\$320,000$

The protection buyer will receive an upfront premium of \$320,000.




(Study Session 13, Module 38.2, LOS 38.c)

Related Material

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Question #11 of 34

When assessing a company's credit risk using structural models, which of the following statements is *most* accurate?

- A) Structural models do not account for the impact of interest rate risk of the value of a company's assets. 
- B) Owning equity is economically equivalent to owning a risk free bond and simultaneously selling a put option on the assets of the company. 
- C) Owning debt is economically equivalent to owning a European call option on the company's assets. 

Explanation

Owning equity is economically equivalent to owning a European call option on the assets of the company. Owning debt is economically equivalent to owning a risk free bond and simultaneously selling a put option on the assets of the company. The structural model assumes that risk-free rate is not stochastic (i.e., it assumes that risk-free rate is constant).




(Study Session 13, Module 37.4, LOS 37.d)

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Question #12 of 34

In anticipation of an announcement of leveraged buyout of a publicly traded company, which of the following actions would be *most appropriate*?

- A) Buy the stock of the company and buy CDS protection on company's debt. 
- B) Sell protection of the company's bond and buy put options on the company's stock. 
- C) Buy both the stock and the bonds of the company. 

Explanation

In the case of a leveraged buyout (LBO), the firm will issue a great amount of debt in order to repurchase all of the company's publicly traded equity. This additional debt will increase the CDS spread because default is now more likely. An investor who anticipates an LBO might purchase both the stock and CDS protection, both of which will increase in value when the LBO happens.

(Study Session 13, Module 38.3, LOS 38.e)

Related Material




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Question #13 of 34

Alan Barding is a bank analyst currently reviewing data on the credit scores of 3 individuals who have applied for a bank loan. The credit scores for the 3 individuals are shown below:

Individual	Credit score
A	700
B	440
C	350

Which of the following conclusions is Barding *least likely* to draw?

- A) Individual A has a lower credit risk than individual B. 
- B) Individual C is twice as likely to default as individual A. 
- C) Individual B is less likely to default than individual C. 

Explanation

Credit scores are ordinal rankings. Individual C is more likely to default than individual A, but it cannot be concluded that A is twice as likely.

(Study Session 13, Module 37.3, LOS 37.b)

Related Material

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Question #14 of 34

An investor in an ABS would face which risks on account of the ABS servicer?

- A) Credit and concentration risk.
- B) Operational and counterparty risk.
- C) Operational and concentration risk.

**Explanation**

After origination, investors in secured debt face the operational and counterparty risk of the servicer.

(Study Session 13, Module 37.7, LOS 37.h)

Related Material

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Question #15 of 34

Which of the following two securities are *most likely* used to calculate the term structure of credit spreads?

- A) A corporate issuer's coupon paying bond and the same issuer's zero coupon bond.
- B) A corporate issuer's zero coupon bond and a default free zero coupon bond.
- C) A corporate issuer's senior debt and the same issuer's subordinated debt.

**Explanation**

If a zero coupon bond is not available an implied zero coupon bond price for the issuer can be derived from the coupon paying bond price.

(Study Session 13, Module 37.6, LOS 37.g)

Related Material

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Question #16 of 34

Using the structural model, the value of the put option on the assets of the company is equal to:

- A) credit valuation adjustment of the bond.
- B) value of the risky bond minus value of the risk-free bond.



C) the value of the call option on assets of the company.



Explanation

Under structural model the put option value = value of risk-free bond – value of the risky bond = CVA.

(Study Session 13, Module 37.4, LOS 37.d)

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Question #17 of 34

If investors are expecting an impending recession, credit spreads would *most likely*:

A) widen.



B) narrow.



C) remain unchanged.



Explanation

Credit spreads change based on market's expectations. Impending recessions would lead to upward revision in probability of default and lower recovery rate. Combined, these revisions would lead to widening of credit spreads.

(Study Session 13, Module 37.6, LOS 37.f)

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Question #18 of 34

As compared to otherwise identical corporate debt, securitized debt is *least likely* to have:

A) the same risk premium.



B) lower cost for the issuer.



C) higher leverage for the issuer.



Explanation

The isolated structure of securitized assets allows for higher leverage and lower cost to the issuer. Investors also benefit from greater diversification, more stable cash flows and a *higher* risk premium relative to similar rated general obligation bonds (due to higher complexity associated with collateralized debt).

(Study Session 13, Module 37.7, LOS 37.h)

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Question #19 of 34

As compared to other secured debt, investors in a covered bond have:

A) recourse rights.



B) an embedded conversion option.



C) an embedded put option.



Explanation

Covered bonds are backed by the collateral pool as well as by the issuer; investors in covered bonds have recourse rights.

(Study Session 13, Module 37.7, LOS 37.h)

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Question #20 of 34

Mihor Kotak is evaluating the impact of a ratings upgrade on 1Team bonds. The bonds have a modified duration of 5.88 and the current credit spread on the bonds is 60 bps. After the upgrade, Kotak expects that the spreads will narrow by 15bps. Based on Kotak's expectations, what will be the estimated change in the price of the bond if the upgrade occurs?

A) 0.88%



B) 8.82%



C) 0.38%



Explanation

Change in spread (given) = - 15 bps

$\Delta\%P = - (\text{modified duration of the bond}) \times (\Delta \text{ spread}) = -5.88 \times -0.0015 = -0.00882$ or 0.88%.
Since spread narrows, price will increase (i.e., a positive price change).

(Study Session 13, Module 37.3, LOS 37.c)

Related Material

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Question #21 of 34

Perez Zinta has collected the following information on a 3-year, 3% corporate bond.

Year	Exposure	LGD	PD	PS	Expected Loss	DF	PV of Expected Loss
1	103.96	41.585	1.80%	98.200%	0.749	0.9756	0.73
2	103.49	41.395	1.77%	96.432%	0.732	0.9518	0.70
3	103.00	41.200	1.74%	94.697%	0.715	0.9286	0.66
						CVA	2.091

Given a 3-year risk-free rate of 1.50%, Calculate the IRR of the bond assuming that default occurs in year 2.

A) -13.37%



B) -25.48%



C) -20.60%



Explanation

First calculate the VND: $N=3$, $PMT = 3$, $FV = 100$, $I/Y = 1.50$, $PV = 104.37 = \text{VND}$.

Price of the corporate bond = $\text{VND} - \text{CVA} = 104.37 - 2.09 = 102.28$

Cash flow in year 0 = -102.28, cash flow in year 1 = \$3 (coupon, no default).

If the bond defaults in year 2, recovery = $\text{Exposure} - \text{LGD} = 103.49 - 41.40 = 62.09 = \text{cash flow in year 2}$.

Enter the cash flows and calculate $\text{IRR} = -20.60\%$.

(Study Session 13, Module 37.1, LOS 37.a)

Related Material

SchweserNotes - Book 4**Question #22 of 34**

Which of the following statements regarding settlement protocols with respect to CDS is *least* accurate?

- A) A super majority vote of the declarations committee of ISDA is needed for a credit event to be declared. ✗
- B) When there is a credit event, the swap will be settled in cash or by physical delivery. ✗
- C) When a credit event has occurred, with physical settlement, the protection seller receives the reference obligation and the protection buyer receives the market ✓

Explanation

In case of physical settlement, the protection buyer receives the notional principal and not the market value of the bond prior to the credit event.

(Study Session 13, Module 38.2, LOS 38.b)

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Question #23 of 34

Gill Westmore is the fixed income portfolio manager for Allied Insurance. Westmore has bought protection using a 2-year CDS on CDX-IG (125 constituent) index. The notional is \$200 million. Company X, an index constituent defaults and trades at 25% of par.

The payoff on the CDS on account of default of X and the notional principal of the CDS after default are *closest* to:

- | | <u>Payoff</u> | <u>Notional</u> | |
|----|---------------|-----------------|---|
| A) | \$1.2 million | \$198.4 million | ✓ |
| B) | \$1.6 million | \$200 million | ✗ |

C) \$1.5 million \$198 million



Explanation

Notional principal attributable to bonds of company X = \$200 million/125 = \$1.6 million.

Payoff on the CDS = \$1.6 million – (0.25)(\$1.6 million) = \$1.2 million.

After default, the CDS continues with (200-1.6) \$198.4 million of notional principal.

(Study Session 13, Module 38.1, LOS 38.a)

Related Material

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Question #24 of 34

Fico scores are inversely related to the:

A) number of 'hard' inquiries.



B) length of credit history.



C) variety of credit types used.



Explanation

FICO scores are higher for those with: (a) longer credit histories (age of oldest account), (b) absence of delinquencies, (c) lower utilization (outstanding balance divided by available line), (d) fewer credit inquiries, and (e) a variety of types of credit used.

(Study Session 13, Module 37.3, LOS 37.b)

Related Material

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Question #25 of 34

Which of the following statements regarding evaluating credit risk of Asset Backed Securities (ABS) is *least* accurate?

A) Credit rating agencies use the same credit ratings for ABS as for corporate debt.



B) Unlike for corporate debt, structural and reduced form models are not appropriate.



C) The analysis should entail consideration of the composition of the collateral pool and the cash flow waterfall.



Explanation

Reduced form and structural models can be used as long as they take into account the complex structure of the ABS.

(Study Session 13, Module 37.7, LOS 37.h)

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Question #26 of 34

If the annual hazard rate for a bond is 1.80%, the probability that the bond does not default over the next three years is *closest* to:

A) 94.70%



B) 95.20%



C) 96.30%



Explanation

Probability of survival = $(1 - 0.018)^3 = 0.9470$.

(Study Session 13, Module 37.1, LOS 37.a)

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Question #27 of 34

Higher rated bonds have lower:

A) credit spreads.



B) price.



C) returns.



Explanation

Higher rated bonds have lower spreads. Price and return depends on other factors (e.g., coupon rate, maturity, risk-free rate).

(Study Session 13, Module 37.3, LOS 37.b)

Related Material

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Question #28 of 34

An ABS security backed by a highly granular collateral pool composed of hundreds of clearly defined loans, analysis of collateral pool can be done using:

- A) examination of individual loans.
- B) distribution waterfall analysis.
- C) summary statistics for analyzing credit risk.



Explanation

A highly granular pool would have hundreds of clearly defined loans, allowing for use of summary statistics as opposed to investigating each borrower. A more-discrete pool of few loans would warrant examination of each obligation separately. Distribution waterfall analysis is part of evaluation of the ABS structure (and not collateral pool).

(Study Session 13, Module 37.7, LOS 37.h)

Related Material

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Question #29 of 34

Credit valuation adjustment is *most likely*:

- A) higher when the recovery rate is higher.
- B) the sum of present values of expected losses.
- C) higher when the probability of survival is higher.



Explanation

Credit valuation adjustment (CVA) is the sum of present values of expected losses. CVA is positively related to the probability of default and negatively related to probability of survival and recovery rate.

(Study Session 13, Module 37.1, LOS 37.a)

Related Material

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Question #30 of 34

Which key input into a reduced form model can be estimated using a regression model?

A) Loss intensity.



B) Default intensity.



C) Recovery rate.



Explanation

Default intensity is the probability of default over the next time period and can be estimated using regression models.

(Study Session 13, Module 37.4, LOS 37.d)

Related Material

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Question #31 of 34

Which of the following strategies would be *most appropriate* use of CDS given an expectation of credit curve steepening?

A) A curve flattening trade.



B) A curve steepening trade.



C) Engage in a naked CDS.



Explanation

A credit curve steepening expectation would entail the credit spread for longer maturities increasing relative to the change in credit spread for shorter maturities. In such a scenario, one would buy protection for longer maturities and sell protection for shorter maturity (i.e., a curve steepening trade).




(Study Session 13, Module 38.3, LOS 38.d)

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Question #32 of 34

Zack Ma is evaluating a 10-year, 4% Tesa bond. Ma has calculated the CVA on the bond to be \$1.19 per \$100 par. Ma is considering the impact of a new patent granted to Tesa. After careful analysis, Ma concludes that the probability of default would most likely decrease on the bond. After incorporating the revised probability in his analysis, Ma will *most likely* conclude that:

- A) only the credit spread will be lower; the impact on CVA will depend on changes in benchmark rates. 
- B) both the CVA and the credit spread will be higher. 
- C) both the CVA and the credit spread will be lower. 

Explanation

CVA and credit spreads are inversely related to probability of default.




(Study Session 13, Module 37.6, LOS 37.f)

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Question #33 of 34

Which of the following factors is *least likely* a determinant of term structure of credit spreads?

- A) Financial conditions in the market. 
- B) Equity market volatility. 
- C) Existence of off-balance sheet liabilities. 

Explanation

Term structure of credit spread is influenced by credit quality, financial conditions, market demand and supply, and equity market volatility.

(Study Session 13, Module 37.6, LOS 37.g)

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Question #34 of 34

Zack Ma is evaluating a five-year, 4% Zem bond. Ma has calculated the CVA on the bond to be \$2.12 per \$100 par. Current benchmark rates are flat at 3%. The credit spread on the bond is *closest* to:

A) 0.97%



B) 0.46%



C) 0.21%



Explanation

First calculate the VND: $N=5$, $PMT = 4$, $FV = 100$, $I/Y = 3$. $PV = 104.58 = VND$.

Value of risky bond = $VND - CVA = 104.58 - 2.12 = 102.46$

YTM on risky bond: $N=5$, $PV = -102.46$, $PMT = 4$, $FV = 100$, $I/Y = 3.46\%$

Credit spread = $YTM(\text{risky}) - YTM(\text{risk-free}) = 3.46\% - 3\% = 0.46\%$.

(Study Session 13, Module 37.5, LOS 37.e)

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