

ch11

Student: _____

1. Default by a large corporation is seldom a problem for FIs since these corporations have many different sources of borrowed funds.
True False
2. Junk bonds are bonds that are rated less than investment grade by bond-rating agencies.
True False
3. During the decade of the 1990s the asset quality of U.S. banks continued to improve.
True False
4. Sustained credit quality problems can drain an FI's capital and net worth.
True False
5. Credit risk applies only to bond investment and loan portfolios of FIs and banks.
True False
6. The primary difficulty in arranging a syndicated loan is having all of the various lending and borrowing parties reach agreement on terms, rates, and collateral.
True False
7. A secured loan has a specific claim to the assets of the borrower in the case of default.
True False
8. Unsecured debt is considered to be senior to secured debt.
True False
9. The amount of security or collateral on a loan and the interest rate or risk premium on a loan normally are negatively related.
True False
10. A loan commitment is an agreement involving the amount of loan available and the amount of time during which the loan can be initiated.
True False
11. The exact interest rate to be charged on a fixed-rate loan is agreed upon by all parties at the time the commitment is negotiated.
True False
12. Long-term loans are more likely to be made under a loan commitment agreement than short-term loans.
True False
13. Commercial paper has become an acceptable substitute source for bank loans for all corporations.
True False
14. Commercial paper typically is secured by specific assets of the borrower.
True False
15. Commercial loans have been decreasing in importance in bank loan portfolios.
True False
16. Commercial real estate mortgages have been the fastest growing component of real estate loans.
True False

17. Residential mortgages are the smallest component of bank real estate loan portfolios.
True False
18. Since their introduction, the proportion of ARMs to fixed-rate residential mortgages has remained very stable over interest rate cycles.
True False
19. Because they are secured by homes, residential mortgages have demonstrated very little credit risk for FIs.
True False
20. Adjustable rate mortgages have interest rates that adjust periodically according to the movement in some index.
True False
21. Usury ceilings are maximum rates imposed by federal legislation that FIs can charge on consumer and mortgage debt.
True False
22. Relationship pricing involves pricing for specific services which depend, in part, on the amount or number of services that are used by the customer.
True False
23. LIBOR, the London Interbank Offered Rate, is the rate for short-term interbank dollar loans in the domestic money-center bank market.
True False
24. Because a compensating balance is the proportion of a loan that must be kept on deposit at the lending institution, the actual interest rate on the usable portion of these loans is higher.
True False
25. Adjusting interest rates, fees, and other terms upward for increasing amounts of default risk is a way to attempt to realize the expected return on the loan.
True False
26. At some point, further increases in interest rates on specific loans may decrease expected loan returns because of increased probability of default by the borrower.
True False
27. Credit rationing is a form of managing credit risk.
True False
28. Generally, at the retail level, an FI controls credit risks solely by using a range of interest rates or prices and not by credit rationing.
True False
29. There is a positive relationship between the interest rate charged on a retail loan and the expected return on the loan.
True False
30. Covenants are restrictions in loan and bond agreements that encourage or forbid certain actions by the borrower.
True False
31. A borrower's reputation is an example of a market-specific factor in the credit decision.
True False
32. The amount of leverage of a borrower and the probability of default are positively related, but only after some minimum level of debt.
True False

33. Recessionary phases in the business cycle typically cause greater hardship on companies that borrow large amounts.
True False
34. Willingness to post collateral may be a signal of more rather than less credit risk on the part of the borrower.
True False
35. Credit scoring models are advantageous because of their ability to sort borrowers into different default risk classes.
True False
36. A major advantage of discriminant models is the stability of the coefficient weights over time.
True False
37. Discriminant models often ignore hard-to-quantify factors in the credit decision.
True False
38. In terms of rating agencies such as S&P, investment grade companies are those whose bond ratings are grade B or above.
True False
39. The risk premium, or spread, between corporate bonds and Treasury securities tends to increase as the time to maturity increases.
True False
40. The probability that a borrower would default in any specific time period is a marginal default probability.
True False
41. The cumulative default probability of a borrower in a given time period is one minus the product of the marginal default probabilities for all time periods up to that time period.
True False
42. The condition of no arbitrage profits implies that profits cannot be made without taking some risk.
True False
43. The mortality rate is the past default experience of all asset quality, or risk, classes.
True False
44. The marginal mortality rate is the probability of a bond or loan defaulting in any given year of the issue.
True False
45. One of the problems with estimating expected default rates is that the analysis is based on historic data.
True False
46. The payoff function of a loan to a debt holder is similar to writing a call option on the value of the borrower's assets with the face value of the debt as the exercise price.
True False
47. RAROC is a measure of a firm's cost of debt.
True False
48. A major problem in estimating RAROC is the measurement of loan risk.
True False
49. The traditional duration equation can be used to measure the capital at risk on the loan.
True False

50. Which of the following is not a characteristic of a loan commitment?
- A. The maximum amount of the loan is negotiated at the time of the loan agreement.
 - B. The interest rate on fixed-rate loans is determined at the time of the loan takedown.
 - C. Floating-rate loans transfer the interest rate risk to the borrower.
 - D. The time period for which the loan is available is negotiated at the time of the loan agreement.
 - E. In a floating-rate loan the borrower pays interest rate in force when the loan is actually taken down.
51. Which of the following observations is true of a spot loan?
- A. It involves a maximum size and a maximum period of time over which the borrower can withdraw funds.
 - B. It involves immediate withdrawal of the entire loan amount by the borrower.
 - C. It is an unsecured short-term debt instrument issued by corporations.
 - D. It is a nonbank loan substitute.
 - E. It is a line of credit.
52. From the perspective of an FI, which of the following is an advantage of a floating-rate loan?
- A. Stable interest payments will be received throughout the loan period.
 - B. The pre-specified interest rate remains in force over the loan contract period no matter what happens to market rate.
 - C. The bank can request repayment of a loan at any time in the contract period.
 - D. The default risk is completely eliminated.
 - E. The interest rate risk is transferred to the borrower.
53. All other things equal, longer term loans are more likely to be
- A. variable-rate loans.
 - B. fixed-rate loans.
 - C. commitment loans.
 - D. lowest risk category loans.
 - E. high interest rate loans.
54. Which of the following observations concerning floating-rate loans is NOT true?
- A. They are less credit risky than fixed-rate loans.
 - B. They better enable FIs to hedge the cost of rising interest rates on liabilities.
 - C. They pass the risk of interest rate changes onto borrowers.
 - D. In rising interest rate environments, borrowers may find themselves unable to pay the interest on their floating-rate loans.
 - E. The loan rate can be periodically adjusted according to a formula.
55. Which of the following is true of commercial paper?
- A. It is a secured long-term debt instrument issued by corporations.
 - B. It is always issued via an underwriter.
 - C. It may help a corporation to raise funds often at rates below those banks charge.
 - D. All corporations can tap the commercial paper market.
 - E. Total commercial paper outstanding in the US is very small compared with C&I loans.
56. Which of the following is NOT characteristic of the real estate portfolio for most banks?
- A. Commercial real estate mortgages have been the fastest growing component of real estate loans.
 - B. Adjustable rate mortgages have rates that are periodically adjusted to some index.
 - C. Borrowers prefer fixed-rate loans to ARMs during periods of high interest rates.
 - D. Residential mortgages are the largest component of the real estate loan portfolio.
 - E. The proportion of ARMs to fixed-rate mortgages can vary considerably over the rate cycle.
57. Which of the following is NOT characteristic of the consumer loans at U.S. banks?
- A. Non revolving consumer loans is the largest class of loans.
 - B. Credit card loans often have default rates between four and eight percent.
 - C. Usury ceilings affect the rate structure for consumer loans.
 - D. Consumer loans differ widely with respect to collateral, rates, maturity, and noninterest fees.
 - E. Revolving consumer loans include new and used automobile loans, mobile home loans, and fixed-term consumer loans.

58. Revolving loans are credit lines
- A. that allow the borrower to borrow the repeat credit only after the first loan is repaid.
 - B. that specify a maximum size and a maximum period of time over which the borrower can withdraw funds.
 - C. whose interest rate adjusts with movements in an underlying market index interest rate.
 - D. on which a borrower can both draw and repay many times over the life of the loan contract.
 - E. that include new and used automobile loans, mobile home loans, and fixed-term consumer loans.
59. Which of the following factors may affect the promised return an FI receives on a loan?
- A. The collateral backing of the loan.
 - B. Fees relating to the loan.
 - C. The interest rate on the loan.
 - D. The credit risk premium on the loan.
 - E. All of the above.
60. Which of the following is not a qualitative factor in credit risk analysis?
- A. Borrower reputation.
 - B. Borrower ethnic origin.
 - C. Leverage position of the borrower.
 - D. The level of interest rates.
 - E. Collateral available.
61. Which of the following statements involving the promised return on a loan is NOT true?
- A. Credit risk may be the most important factor affecting the return on a loan.
 - B. Compensating balances reduce the effective cost of loans for the borrower because the deposit rate typically is greater than the loan rate.
 - C. Compensating balances represents the portion of the loan that must be kept on deposit at the bank.
 - D. Compensating balance requirements provide an additional source of return for the lending institution.
 - E. Increased collateral is a method of compensating for lending risk.
62. Which of the following statements does NOT reflect credit decisions at the retail level?
- A. Retail customers are more likely to be rationed through interest rates than loan quantity restrictions.
 - B. Most loan decisions at the retail level tend to be accept or reject decisions.
 - C. Mortgage loans often are discriminated based on loan to price ratios rather than interest rates.
 - D. Household borrowers require higher costs of information collection for lenders.
 - E. Retail loans tend to be smaller than wholesale loans.
63. Credit rationing by an FI
- A. involves restricting the quantity of loans made available to individual borrowers.
 - B. results from a monotonic relationship between interest rates and expected loan returns.
 - C. is not used by FIs at the retail level.
 - D. involves rationing consumer loans using price or interest rate differences.
 - E. is only relevant to banks.
64. Which of the following statements does not reflect a borrower-specific factor often used in qualitative default risk models?
- A. Reputation is an implicit contract regarding borrowing and repayment that extends beyond the formal explicit legal contract.
 - B. A borrower's leverage ratio is positively related to the probability of default over all levels of debt.
 - C. Firms with high earnings variance are less attractive credit risks than those firms that have a history of stable earnings.
 - D. Loans can be collateralized or uncollateralized.
 - E. Reputation is a key reason why initial public offering of debt securities by small firms have a higher interest rate than do debt issues of more seasoned borrowers.

65. In making credit decisions, the following item is considered a market-specific factor.
- A. Whether the reputation of the borrower enhances the credit application.
 - B. Whether the current debt-equity ratio is sufficiently low to not impact the probability of repayment.
 - C. Whether the debt can be secured by specific property.
 - D. Whether the position of the economy in the business cycle phase would affect the probability of borrower default.
 - E. Whether the volatility of earnings could present a period where the periodic payment of interest and principal would be at risk.
66. What refers to the risk that the borrower is unable or unwilling to fulfill the terms promised under the loan contract?
- A. Liquidity risk.
 - B. Interest rate risk.
 - C. Sovereign risk.
 - D. Default risk.
 - E. Solvency risk.
67. Which of the following refers to restrictions in loan and bond agreements that encourage or forbid certain actions by the borrower?
- A. Mortality rates.
 - B. RAROC.
 - C. Implicit contracts.
 - D. Covenants.
 - E. Credit rationing.
68. Credit scoring models include all of the following broad types of models EXCEPT
- A. Linear discriminant models.
 - B. Linear probability models.
 - C. Term structure models.
 - D. Logit models.
 - E. More than one of the above is correct.
69. In making credit decisions, the following item is considered a market-specific factor.
- A. Whether the borrower's capital structure is beyond the point where additional debt increases the probability of loss of principal or interest.
 - B. Whether the relative level of interest rates will encourage the borrower to take excessive risks.
 - C. Whether property can be pledged as collateral.
 - D. Whether the volatility of earnings could present a period where the periodic payment of interest and principal would be at risk.
 - E. Whether the record of the borrower is sufficient to create an implicit contract.
70. Borrower reputation is important in assessing credit quality because
- A. good past payment performance perfectly predicts future behavior.
 - B. preservation of a good customer/FI relationship acts as an additional incentive to encourage loan repayment.
 - C. FIs only lend to customers they know.
 - D. customers with poor credit histories always default on their loans.
 - E. a reputation for honesty is important in credit appraisal.
71. Which of the following loan applicant characteristics is not relevant in the credit approval decision?
- A. Leverage position of the borrower.
 - B. Borrower income.
 - C. Value of collateral.
 - D. Borrower reputation.
 - E. None of the above.

72. Which of the following is true of the prime lending rate?
- A. It is most commonly used in pricing longer-term loans.
 - B. It is the lending rate charged to the FI's lowest-risk customers.
 - C. It is also known as LIBOR.
 - D. It is the rate for interbank dollar loans of a given maturity in the Eurodollar market.
 - E. The best and largest borrowers commonly pay above this lending rate.
73. Suppose that debt-equity ratio (D/E) and the sales-asset ratio (S/A) were two factors influencing the past default behavior of borrowers. Based on past default (repayment) experience, the linear probability model is estimated as: $PD_i = 0.5(D/E_i) + 0.1(S/A_i)$. If a prospective borrower has a debt-equity ratio of 0.4 and sales-asset ratio of 1.8, the expected probability of default is
- A. 0.02.
 - B. 0.35.
 - C. 0.38.
 - D. 0.62.
 - E. 0.98.
74. Which of the following is the major weakness of the linear probability model?
- A. Based on market expectations.
 - B. Measurement of the loan risk is difficult.
 - C. Estimated probabilities of default may lie outside the interval 0 to 1.
 - D. Neither the market value of a firm's assets nor the volatility of the firm's assets is directly observed.
 - E. Answers A and D only.
75. According to Altman's credit scoring model, which of the following Z scores would indicate a low default risk firm?
- A. Less than 1.
 - B. 1.
 - C. Between 1 and 1.81.
 - D. Between 1.81 and 2.99.
 - E. Greater than 2.99.
76. How can discriminant analysis be used to make credit decisions?
- A. By discriminating between good and bad borrowers.
 - B. By using statistical analysis to predict the default probabilities.
 - C. By using statistical analysis to isolate and weight factors to arrive at default risk classification of a commercial borrower.
 - D. By using statistical analysis to bypass qualitative credit decision making.
 - E. By updating FI bankruptcy experiences.
77. What is the most important factor determining bankruptcy, according to the Altman Z-score model?
- A. Working capital to assets ratio.
 - B. Retained earnings to assets ratio.
 - C. Earnings before interest and taxes to assets ratio.
 - D. Market value of equity to book value of long-term debt ratio.
 - E. Sales to assets ratio.
78. What is the least important factor determining bankruptcy, according to the Altman Z-score model?
- A. Working capital to assets ratio
 - B. Retained earnings to assets ratio
 - C. Earnings before interest and taxes to assets ratio
 - D. Market value of equity to book value of long-term debt ratio
 - E. Sales to assets ratio

79. Which of the following is a problem in using discriminant analysis to evaluate credit risk?
- A. It does not consider gradations of default.
 - B. The weights in the discriminant function are assumed to be dynamic.
 - C. It can include hard-to-quantify factors.
 - D. Data on loan specific information of banks are readily available.
 - E. It does not assume that variables are independent of one another.
80. Confidence Bank has made a loan to Risky Corporation. The loan terms include a default risk-free borrowing rate of 8 percent, a risk premium of 3 percent, an origination fee of 0.1875 percent, and a 9 percent compensating balance requirement. Required reserves at the Fed are 6 percent. What is the expected or promised gross return on the loan?
- A. 11.19 percent.
 - B. 11.90 percent.
 - C. 12.29 percent.
 - D. 12.02 percent.
 - E. 12.22 percent.
81. What is the essential idea behind RAROC?
- A. Evaluating the actual or contractually promised annual ROA on a loan.
 - B. Analyzing historic or past default risk experience.
 - C. Balancing expected interest and fee income less the cost of funds against the loan's expected risk.
 - D. Extracting expected default rates from the current term structure of interest rates.
 - E. Dividing net interest and fees by the amount lent.
82. Marginal default probability refers to the
- A. probability that a borrower will default over a specified multiyear period.
 - B. marginal increase in the default probability due to a change in credit premium.
 - C. historic default rate experience of a bond or loan.
 - D. expected maximum change in the loan rate due to a change in the credit premium.
 - E. probability that a borrower will default in any given year.
83. Cumulative default probability refers to
- A. probability that a borrower will default over a specified multiyear period.
 - B. expected maximum change in the loan rate due to a change in the risk factor on the loan.
 - C. historic default rate experience of a bond or loan.
 - D. expected maximum change in the loan rate due to a change in the credit premium.
 - E. probability that a borrower will default in any given year.
84. Which of the following refers to the term "mortality rate"?
- A. The success rate of new investments.
 - B. A one-period rate of interest expected on a bond issued at some date in the future.
 - C. The probability that a borrower will default in any given year.
 - D. Historic default rate experience of a bond or loan.
 - E. The probability that a borrower will default over a specified multiyear period.
85. Which of the following is NOT a valid conceptual or application problem of the mortality rate approach to estimate default risk?
- A. Implied future probabilities are sensitive to the period over which MMRs are calculated.
 - B. The estimates are sensitive to the number of issues in each investment grade.
 - C. Syndicated loans seem to have higher mortality rates than corporate bonds.
 - D. The estimated probability values are historic or backward-looking measures.
 - E. The estimates are sensitive to the relative size of issues in each investment grade.

86. 86. If the spot interest rate on a prime-rated one-month CD is 6 percent today and the market rate on a two-month maturity prime-rated CD is 7 percent today, the implied forward rate on a one-month CD to be delivered one month from today is
- 9 percent.
 - 11 percent.
 - 18 percent.
 - 10 percent.
 - 8 percent.
87. Which of the following completes the statement? All else equal, the higher the duration of a loan,
- the lower the current level of interest rates, the higher the RAROC.
 - the lower the expected change in risk premium, the lower the RAROC.
 - the higher the expected change in risk premium, the higher the RAROC.
 - the higher the loan amount, the lower the RAROC.
 - the lower the loan amount, the lower the RAROC.
88. From the lender's point of view, debt can be evaluated as
- writing a call option on the borrower's assets with the exercise price equal to the face value of the debt.
 - buying a call option on the borrower's liabilities with the exercise price equal to the market value of the debt.
 - buying a put option on the borrower's assets with the exercise price equal to the face value of the debt.
 - writing a put option on the borrower's assets with the exercise price equal to the face value of the debt.
 - writing a put option on the borrower's liabilities with the exercise price equal to the market value of the debt.
89. What does the KMV model use as equivalent to holding a call option on the assets of the firm?
- The value of equity in a firm.
 - Total liabilities of a firm.
 - Net income of a firm.
 - Dividend yield of investments.
 - Short-term debt liabilities of a firm.
90. Simulations by KMV have shown which of the following models to be relatively better predictors of corporate failure and distress?
- Z score-type models.
 - S&P rating changes.
 - EDF models.
 - Linear probability models.
 - Logit models.

Using a modified discriminant function similar to Altman's, a bank estimates the following coefficients for its portfolio of loans:

$$Z = 1.4X_1 + 1.09X_2 + 1.5X_3$$

where X_1 = debt to asset ratio; X_2 = net income and X_3 = dividend payout ratio.

91. What is the Z-score if the debt to asset ratio is 40 percent, net income is 12 percent, and the dividend payout ratio is 60 percent?
- 1.59.
 - 1.48.
 - 1.36.
 - 1.28.
 - 1.20.
92. Using $Z=1.682$ as the cut-off rate, what should be the debt to asset ratio of the firm in order for the bank to approve the loan?
- 40.0 percent.
 - 46.5 percent.
 - 51.5 percent.
 - 54.0 percent.
 - 65.0 percent.

Suppose that the financial ratios of a potential borrowing firm took the following values:

$$X1 = .3$$

$$X2 = 0$$

$$X3 = -0.30$$

$$X4 = 0.15$$

$$X5 = 2.1$$

Altman's discriminant function takes the form:

$$Z = 1.2 X1 + 1.4 X2 + 3.3 X3 + 0.6 X4 + 1.0 X5$$

93. The Z score for the firm would be
- A. 1.64.
 - B. 1.56.
 - C. 2.1.
 - D. 3.54.
 - E. 2.96.
94. According to Altman's credit scoring model, this firm should be considered
- A. a high default risk firm.
 - B. an indeterminant default risk firm.
 - C. a low default risk firm.
 - D. a lowest risk customer.
 - E. Either C or D.
95. Suppose $X3 = 0.2$ instead of -0.30 . According to Altman's credit scoring model, the firm would fall under which default risk classification?
- A. A high default risk firm.
 - B. An indeterminant default risk firm.
 - C. A low default risk firm.
 - D. A medium default risk firm.
 - E. Either B or D.

The following represents two yield curves.

| Maturity | Pure Discount Treasury Yields | B-rated Corporate Bond Yields (Pure Discount Bonds) |
|----------|-------------------------------|---|
| 1 year | 3 percent | 6 percent |
| 2 year | 6 percent | 10 percent |
| 20 year | 12 percent | 17 percent |

96. What is the implied probability of repayment on one-year B-rated debt?
- A. 95.00 percent.
 - B. 97.17 percent.
 - C. 94.00 percent.
 - D. 97.00 percent.
 - E. 97.09 percent.
97. What rate is expected on a one-year B-rated corporate bond in one year? (Hint: Use the implied forward rate.)
- A. 10.0 percent.
 - B. 9.09 percent.
 - C. 14.15 percent.
 - D. 12.0 percent.
 - E. 17.0 percent.

98. What spread is expected between the one-year maturity B-rated bond and the one-year Treasury bond in one year?
- 3.00 percent.
 - 5.06 percent.
 - 4.00 percent.
 - 5.00 percent.
 - 7.00 percent.
99. What is the expected probability of default in year 2 of two-year maturity B-rated debt?
- 2.83 percent.
 - 3.00 percent.
 - 4.43 percent.
 - 2.68 percent.
 - 5.00 percent.
100. What is the probability that two-year B-rated corporate debt will be fully repaid?
- 92.9 percent.
 - 95.6 percent.
 - 97.2 percent.
 - 7.10 percent.
 - 4.40 percent.

The following information on the mortality rate of loans as estimated by an FI:

| | | Years after Issuance | |
|---------------|--------------|----------------------|-------|
| Rating | | 1 | 2 |
| A-rated loans | (yearly) | 0.5% | 0.5% |
| | (cumulative) | 0.5% | x |
| B-rated loans | (yearly) | 1.0% | 1.25% |
| | (cumulative) | 1.0% | x |

101. What is the cumulative mortality rate of the A-rated and B-rated loans for year 2?
- 1.0 percent and 2.24 percent.
 - 0.5 percent and 1.24 percent.
 - 1.0 percent and 1.74 percent.
 - 0.5 percent and 0.5 percent.
 - 1.0 percent and 1.0 percent.
102. If the cumulative mortality rate in year 3 is 3.46 percent for the B-rated loan, what is its yearly mortality rate in year 3?
- 1.25 percent.
 - 1.21 percent.
 - 1.00 percent.
 - 0.90 percent.
 - 0.875 percent.

The following is information on current spot and forward term structures:

| | Spot 1 Year | Spot 2 Year | (1-year maturity) Forward 1-year |
|--------------------|-------------|--------------|-------------------------------------|
| Treasury | 3.0 percent | 4.75 percent | x |
| BBB Corporate Debt | 7.5 percent | 9.15 percent | y |

103. Calculate the value of x (the implied forward rate on one-year maturity Treasuries to be delivered in one year).
- 6.53 percent.
 - 10.83 percent.
 - 5.75 percent.
 - 6.925 percent.
 - 1.017 percent.

104. Calculate the value of y (the implied forward rate on one-year maturity BBB corporate debt to be delivered in one year).
- A. 6.53 percent.
 - B. 10.83 percent.
 - C. 5.75 percent.
 - D. 6.925 percent.
 - E. 1.017 percent.
105. Using the term structure of default probabilities, the implied default probability for BBB corporate debt during the current year is
- A. 98.0 percent.
 - B. 2.35 percent.
 - C. 4.19 percent.
 - D. 3.90 percent.
 - E. 2.71 percent.
106. Using the term structure of default probabilities, the implied default probability for BBB corporate debt during the following year is
- A. 4.20 percent.
 - B. 98.0 percent.
 - C. 2.35 percent.
 - D. 2.71 percent.
 - E. 3.88 percent.
107. The cumulative probability of repayment of BBB corporate debt over the next two years is
- A. 99.84 percent.
 - B. 90.00 percent.
 - C. 4.45 percent.
 - D. 95.70 percent.
 - E. 100.0 percent.

The duration of a soon to be approved loan of \$10 million is four years. The 99th percentile increase in risk premium for bonds belonging to the same risk category of the loan has been estimated to be 5.5 percent.

108. What is the capital (loan) risk of the loan if the current average level of interest rates for this category of bonds is 12 percent?
- A. -\$550,000.
 - B. -\$1,564,286.
 - C. -\$1,964,286.
 - D. -\$2,000,000.
 - E. -\$2,200,000.
109. If the fee income on this loan is 0.4 percent and the spread over the cost of funds to the bank is 1 percent, what is the expected income on this loan for the current year?
- A. \$40,000.
 - B. \$100,000.
 - C. \$140,000.
 - D. \$180,000.
 - E. \$280,000.
110. What is the estimated risk-adjusted return on capital (RAROC) of this loan?
- A. 6.36 percent.
 - B. 7.00 percent.
 - C. 7.13 percent.
 - D. 10.55 percent.
 - E. 25.45 percent.

111. If the minimum RAROC acceptable to the bank is 8 percent, what should be its expected percentage fee income in order for it to approve the loan?
- A. .157 percent.
 - B. .331 percent.
 - C. .471 percent.
 - D. .531 percent.
 - E. .571 percent.

Onyx Corporation has a \$200,000 loan that will mature in one year. The risk free interest rate is 6 percent. The standard deviation in the rate of change in the underlying asset's value is 12 percent, and the leverage ratio for Onyx is 0.8 (80 percent). The value for $N(h_1)$ is 0.02743, and the value for $N(h_2)$ is 0.96406.

112. What is the current market value of the loan?
- A. \$160,000.
 - B. \$188,041.
 - C. \$200,000.
 - D. \$188,352.
 - E. \$178,571.
113. What is the required yield on this risky loan?
- A. 6.165 percent.
 - B. 6.00 percent.
 - C. 0.165 percent.
 - D. 5.835 percent.
 - E. None of the above.

ch11 Key

1. FALSE
2. TRUE
3. TRUE
4. TRUE
5. FALSE
6. FALSE
7. TRUE
8. FALSE
9. TRUE
10. TRUE
11. TRUE
12. FALSE
13. FALSE
14. FALSE
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- 45. TRUE
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- 47. FALSE
- 48. TRUE
- 49. TRUE
- 50. B
- 51. B
- 52. E
- 53. A
- 54. A
- 55. C
- 56. C
- 57. E
- 58. D
- 59. E
- 60. B
- 61. B
- 62. A
- 63. A
- 64. B
- 65. D
- 66. D
- 67. D
- 68. C
- 69. B
- 70. B
- 71. E
- 72. A
- 73. C
- 74. C

75. E
76. C
77. C
78. D
79. A
80. E
81. C
82. E
83. A
84. D
85. C
86. E
87. D
88. D
89. A
90. C
91. A
92. B
93. B
94. A
95. C
96. B
97. C
98. B
99. C
100. A
101. A
102. A
103. A
104. B
105. C
106. E
107. A
108. C
109. C
110. C
111. E
112. B

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