



## TBChap 007 - test bank

Financial Institutions (University of Nebraska-Lincoln)

## Chapter 07 Risks of Financial Institutions Answer Key

### Multiple Choice Questions

55. Holding corporate bonds with fixed interest rates involves
- A. default risk only.
  - B. interest rate risk only.
  - C. liquidity risk and interest rate risk only.
  - D. default risk and interest rate risk.**
  - E. default and liquidity risk only.
56. Regulation limits FI investment in non-investment grade bonds (rated below Baa or non-rated). What kind of risk is this designed to limit?
- A. Liquidity risk.
  - B. Interest rate risk.
  - C. Credit risk.**
  - D. Foreign exchange rate risk.
  - E. Off-balance sheet risk.
57. What type of risk focuses upon mismatched asset and liability maturities and durations?
- A. Liquidity risk.
  - B. Interest rate risk.**
  - C. Credit risk.
  - D. Foreign exchange rate risk.
  - E. Off-balance sheet risk.

58. The asset transformation function potentially exposes the FI to
- A. foreign exchange risk.
  - B. technology risk.
  - C. operational risk.
  - D. trading risk.
  - E. interest rate risk.**
59. Which function of an FI involves buying primary securities and issuing secondary securities?
- A. Brokerage.
  - B. Asset transformation.**
  - C. Investment research.
  - D. Self-regulator.
  - E. Trading.
60. What type of risk focuses upon mismatched currency positions?
- A. Liquidity risk.
  - B. Interest rate risk.
  - C. Credit risk.
  - D. Foreign exchange rate risk.**
  - E. Off-balance sheet risk.

61. What type of risk focuses upon future contingencies?
- A. Liquidity risk.
  - B. Interest rate risk.
  - C. Credit risk.
  - D. Foreign exchange rate risk.
  - E. Off-balance sheet risk.**
62. If the loans in the bank's portfolio are all negatively correlated, what will be the impact on the bank's credit risk exposure?
- A. The loans' negative correlations will decrease the bank's credit risk exposure because lower than expected returns on some loans will be offset by higher than expected returns on other loans.**
  - B. The loans' negative correlations will increase the bank's credit risk exposure because lower than expected returns on some loans will be offset by higher than expected returns on other loans.
  - C. The loans' negative correlations will increase the bank's credit risk exposure because higher returns on less risky loans will be offset by lower returns on riskier loans.
  - D. The loans' negative correlations will decrease the bank's credit risk exposure because higher returns on less risky loans will be offset by lower returns on riskier loans.
  - E. There is no impact on the bank's credit risk exposure.
63. A mortgage loan officer is found to have provided false documentation that resulted in a lower interest rate on a loan approved for one of her friends. The loan was subsequently added to a loan pool, securitized and sold. Which of the following risks applies to the false documentation by the employee?
- A. Market risk.
  - B. Credit risk.
  - C. Operational risk.**
  - D. Technological risk.
  - E. Sovereign risk.

- 6 A small local bank failed because a housing market collapse following the departure of the area's largest employer. What type of risk applies to the failure of the institution?
- A. Firm-specific risk.
  - B. Technological risk.
  - C. Operational risk.
  - D. Sovereign risk.
  - E. Insolvency risk.**
65. The risk that a German investor who purchases British bonds will lose money when trying to convert bond interest payments made in pounds sterling into euros is called
- A. liquidity risk.
  - B. interest rate risk.
  - C. credit risk.
  - D. foreign exchange rate risk.**
  - E. off-balance-sheet risk.
66. An FI that finances long-term fixed rate mortgages with short-term deposits is exposed to
- A. increases in net interest income and decreases in the market value of equity when interest rates fall.
  - B. decreases in net interest income and decreases in the market value of equity when interest rates fall.
  - C. decreases in net interest income and decreases in the market value of equity when interest rates rise.**
  - D. increases in net interest income and decreases in the market value of equity when interest rates rise.
  - E. increases in net interest income and increases in the market value of equity when interest rates rise.

67. The risk that an investor will be forced to place earnings from a loan or security into a lower yielding investment is known as
- A. liquidity risk.
  - B. reinvestment risk.**
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.
68. "Matching the book" or trying to match the maturities of assets and liabilities is intended to protect the FI from
- A. liquidity risk.
  - B. interest rate risk.**
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.
69. When the assets and liabilities of an FI are not equal in size, efficient hedging of interest rate risk can be achieved by
- A. increasing the duration of assets and increasing the duration of equity.
  - B. issuing more equity and reducing the amount of borrowed funds.
  - C. not exactly matching the maturities of assets and liabilities.**
  - D. issuing more equity and investing the funds in higher-yielding assets.
  - E. efficient hedging cannot be achieved without the use of derivative securities.

70. Unanticipated diseconomies of scale or scope are a result of
- A. interest rate risk.
  - B. technology risk.**
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.
71. An FI that finances a euro (€) loan with U.S. dollar (\$) deposits is exposed to
- A. technology risk.
  - B. interest rate risk.
  - C. credit risk.
  - D. foreign exchange risk.**
  - E. off-balance-sheet risk.
72. Matching the foreign currency book of assets and liability maturity does not protect the FI from
- A. sovereign country risk.**
  - B. interest rate risk.
  - C. liquidity risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.
73. The potential exercise of unanticipated contingencies can result in
- A. technology risk.
  - B. interest rate risk.
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.**

74. The **asymmetric return distribution** (relatively high probability of anticipated return; lower probability of default) on risky debt exposes the FI to
- A. technology risk.
  - B. interest rate risk.
  - C. credit risk.**
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.
75. The major source of risk exposure resulting from issuance of standby letters of credit is
- A. technology risk.
  - B. interest rate risk.
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.**
76. Politically motivated limitations on payments of foreign currency may expose an FI to
- A. sovereign country risk.**
  - B. interest rate risk.
  - C. credit risk.
  - D. foreign exchange risk.
  - E. off-balance-sheet risk.



77. The risk that a debt security's price will fall, subjecting the investor to a potential capital loss is  
market risk  
A. credit risk.  
**B. market risk.**  
C. currency risk.  
D. liquidity risk.  
E. political risk.
78. The risk that interest income will increase at a slower rate than interest expense is  
A. credit risk.  
B. political risk.  
C. currency risk.  
**D. interest rate risk.**  
E. liquidity risk.
79. The risk that borrowers are unable to repay their loans on time is  
**A. credit risk.**  
B. sovereign risk.  
C. currency risk.  
D. liquidity risk.  
E. interest rate risk.

80. The risk that many borrowers in a particular country fail to repay their loans as a result of a recession in that country relates to sovereign risk
- A. credit risk.
  - B. sovereign risk.**
  - C. currency risk.
  - D. liquidity risk.
  - E. interest rate risk.
81. The risk that many depositors withdraw their funds from an FI at once is liquidity risk
- A. credit risk.
  - B. sovereign risk.
  - C. currency risk.
  - D. liquidity risk.**
  - E. interest rate risk.
82. The risk that a foreign government may devalue the currency relates to
- A. credit risk.
  - B. sovereign risk.
  - C. foreign exchange risk.**
  - D. liquidity risk.
  - E. interest rate risk.
- Market risk

83. As commercial banks move from their traditional banking activities of deposit taking and lending and shift more of their activities to trading, they are more subject to
- A. credit risk.
  - B. market risk.**
  - C. political risk.
  - D. sovereign risk.
  - E. liquidity risk.
84. An advantage FIs have over individual household investors is that they are able to diversify away credit risk by holding a large portfolio of loans to different entities. This reduces
- A. firm-specific credit risk.**
  - B. systematic credit risk.
  - C. interest rate risk.
  - D. market risk.
  - E. political risk.
85. A U.S. bank has €40 million in assets and €50 million in CDs. All other assets and liabilities are in U.S. dollars. This bank is
- A. net long €10 million.
  - B. net short €10 million.**
  - C. neither short nor long in €.
  - D. net long -€10 million.
  - E. net short -€10 million.

Any FI is considered to be "net short" when the value of the assets is less than the value of liabilities.

$$(\text{asset value} - \text{liability value}) = \text{net position}$$

$$(\text{€40} - \text{€50}) = -\text{€10 million} \quad \text{"net short"}$$

86. Interest rate risk management for financial intermediaries deals primarily with
- A. controlling the overall size of the institution.
  - B. controlling the scope of the institution's activities.
  - C. limiting the geographic spread of the institution's offices.
  - D. limiting the mismatches on the institution's balance sheet.**
  - E. continuously and carefully complying with all government regulations.
87. When the U.S. dollar declines against European currencies, it is
- A. potentially harmful for European banks only.
  - B. potentially harmful for U.S. banks only.
  - C. potentially harmful for those banks that have financed U.S. dollar assets with liabilities denominated in European currencies.**
  - D. potentially harmful for those banks that have financed European currency assets with U.S. dollar liabilities.
  - E. irrelevant for global banks.
88. In which of the following situations would an FI be considered net long in foreign assets if it has ¥100 million in loans?
- $\leq 100$
- A. ¥120 million in liabilities.
  - B. ¥80 million in liabilities.**
  - C. ¥100 million in liabilities.
  - D. ¥110 million in liabilities.
  - E. Answers A and D only.

Any FI is considered to be "net long" when the value of the assets is more than the value of liabilities.

$(\text{asset value} - \text{liability value}) = \text{net position}$

$(¥100 - ¥80) = +¥20$  million is the only option in which the value of assets is more than the value of liabilities.

89. With regard to market value risk, rising interest rates      decrease   fixed
- A. increase the value of fixed rate liabilities.
  - B. increase the value of fixed rate assets.
  - C. increase the value of variable-rate assets.
  - D. decrease the value of fixed rate liabilities.**
  - E. decrease the value of variable-rate assets.
90. Which of the following situations pose a refinancing risk for an FI?      one year   two year
- A. An FI issues \$10 million of liabilities of one-year maturity to finance the purchase of \$10 million of assets with a two-year maturity.**
  - B. An FI issues \$10 million of liabilities of two-year maturity to finance the purchase of \$10 million of assets with a two-year maturity.
  - C. An FI issues \$10 million of liabilities of three-year maturity to finance the purchase of \$10 million of assets with a two-year maturity.
  - D. An FI matches the maturity of its assets and liabilities.
  - E. All of the above.

Refinancing risk occurs when maturing liabilities may have to be replaced at higher rates than those of the maturing liability. Refinancing risk is present when the FI is "net short".

The only selection that represents a net short position exposed to refinancing risk is:

"An FI issues \$10 million of liabilities of one-year maturity to finance the purchase of \$10 million of assets with a two-year maturity."

91. Which term refers to the risk that the cost of rolling over or re-borrowing funds will rise above the returns being earned on asset investments?      Refinancing risk
- A. Reinvestment risk.
  - B. Credit risk.
  - C. Refinancing risk.**
  - D. Liquidity risk.
  - E. Sovereign risk.

92. Which term refers to the risk that interest income will decrease as maturing assets are replaced with new, more current assets?
- A. Credit risk.
  - B. Refinancing risk.
  - C. Reinvestment risk.**
  - D. Liquidity risk.
  - E. Sovereign risk.
93. Which of the following would one typically find in the trading portfolio of an FI?
- A. Cash, loans, and deposits.
  - B. Premises and equipment.
  - C. Relatively illiquid assets.
  - D. Assets held for long holding periods.
  - E. Bonds, equities, and derivatives.**
94. The increased opportunity for a bank to securitize loans into liquid and tradable assets is likely to affect which type of risk?
- A. Sovereign risk.
  - B. Market risk.**
  - C. Insolvency risk.
  - D. Technological risk.
  - E. Interest rate risk.

95. This risk of default is associated with general economy-wide or macro conditions affecting all borrowers.
- A.** Systematic credit risk.
  - B. Firm-specific credit risk.
  - C. Refinancing risk.
  - D. Liquidity risk.
  - E. Sovereign risk.
96. Which of the following observations is NOT true of a letter of credit?
- A. It is a credit guarantee.
  - B. It is issued by an FI.
  - C. It is issued for a fee.
  - D. Payment on the letter is contingent on some future event occurring.
  - E.** It appears on the FI's current balance sheet.
97. Economically speaking, OBS activities are contractual claims that
- A. may or may not occur.
  - B. if the contingency does occur, the asset or liability is transferred onto the FI's balance sheet.
  - C. impact the economic value of the equity.
  - D. if the contingency never occurs, there is virtually no economic meaning to the OBS activity.
  - E.** all of the above.

98. The BIS definition: "the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events," encompasses which of the following risks?
- A. Credit risk and liquidity risk
  - B. Operational risk and technology risk**
  - C. Credit risk and market risk
  - D. Technology risk and liquidity risk
  - E. Sovereign risk and credit risk
99. Which of the following refers to an FI's ability to generate cost synergies by producing more than one output with the same inputs?
- A. Market intermediation.
  - B. Economies of scope.**
  - C. Break-even point.
  - D. Economies of scale.
  - E. Business continuity plan.
100. The risk that an FI may not have enough capital to offset a sudden decline in the value of its assets relative to its liabilities is referred to as
- A. currency risk.
  - B. sovereign risk.
  - C. insolvency risk.**
  - D. liquidity risk.
  - E. interest rate risk.



101. Which of the following may occur when a sufficient number of borrowers are unable to repay interest and principal on loans, thus causing an FI's equity to approach zero?
- A. Insolvency** risk.
  - B. Sovereign risk.
  - C. Foreign exchange risk.
  - D. Liquidity risk.
  - E. Interest rate risk.
102. For an FI investing in risky loans or bonds, the probability is relatively the lowest for which of the following occurrences?
- A. Repayment of principal and promised interest in full.
  - B. Partial default on interest payments.
  - C. Complete default on interest payments.
  - D. Partial default of the principal remaining on a loan.
  - E. Complete default on principal and interest.**
103. Economies of scale refer to an FI's ability to
- A. lower its average costs of operations by expanding its output of financial services.**
  - B. generate cost synergies by producing more than one output with the same inputs.
  - C. understand each risk and its interaction with other risks.
  - D. finance its assets completely with borrowed funds.
  - E. moderate the long-tailed downside risk of the return distribution.

Bank of the Atlantic has liabilities of \$4 million with an average maturity of two years paying interest rates of 4.0 percent annually. It has assets of \$5 million with an average maturity of 5 years earning interest rates of 6.0 percent annually.

104. To what risk is the bank exposed?

- A. Reinvestment risk.
- B. Refinancing risk.
- C. Interest rate risk.
- D. Answers A and C only.
- E. Answers B and C only.

Since liabilities are of shorter term (maturity) than the assets, this bank is exposed to both refinancing risk (the ability to replace the same amount of funds) and interest rate risk (the risk that they may have to pay higher rates on liabilities in order to replace them at maturity).

105. What is the bank's net interest income for the current year?

- A. \$300,000.
- B. \$140,000.
- C. \$160,000.
- D. \$280,000.
- E. \$80,000.

$$NII = (\text{average interest earning assets} \times \text{average rate earned}) - (\text{average interest bearing liabilities} \times \text{average rate paid})$$

$$NII = (\$5,000,000 \times 0.06) - (\$4,000,000 \times 0.04) = \$300,000 - \$160,000 = \$140,000$$

106. What is the bank's net interest income in dollars in year 3, after it refinances all of its liabilities at a rate of 6.0 percent?

- A. -  
\$60,000  
.
- B. -  
\$140,000  
.
- C. +  
\$140,000  
.
- D.** +  
\$60,000.
- E. +  
\$800,000  
.

If liabilities are refinanced at 6.0 percent,

$$NII = (\$300,000 - (4,000,000 \times 0.06) = \$300,000 - \$240,000 = \$60,000$$

107. What is the bank's net interest income in dollars in year 3, if it refinances all of its liabilities at a rate of 8.0 percent?

- A.** -  
\$20,000  
.
- B. -  
\$10,000  
.
- C. -  
\$15,000  
.
- D. +  
\$20,000.
- E. +  
\$10,000.

If liabilities are refinanced at 8.0 percent,

$$NII = (\$300,000 - (4,000,000 \times 0.08) = \$300,000 - \$320,000 = (\$20,000)$$

108. What is the maximum interest rate that it can refinance its \$4 million liability and still break even on its net interest income in dollars?
- A. 6.5 percent.
  - B. 7.0 percent.
  - C. 7.5 percent.**
  - D. 8.0 percent.
  - E. 8.5 percent.

To break even, the total net interest expense must equal the interest income of \$300,000.

$$\text{NIE} = 300,000 = 4,000,000 \times \text{RL}$$

$$\text{RL} = \$300,000 \div 4,000,000 = 0.075 \text{ or } 7.5 \text{ percent}$$

Millon National Bank has 10 million British pounds (£) in one-year assets and £8 million in one-year liabilities. In addition, it has one-year liabilities of 4 million euros (€). Assets are earning 8 percent and both liabilities are being paid at a rate of 8 percent. All interest and principal will be paid at the end of the year.

109. What is the net interest income in dollars if the spot prices at the end of the year are \$1.50/£ and €1.65/\$?

**A. \$46,060.6**

- 1.
- B. \$320,000.
- C. \$1,200,000.
- D. \$266,666.67.
- E. \$720,000.

Spot prices at year-end of \$1.50/£ and €1.65

$$\text{FNII} = (£10,000,000 \times 0.08) - (£8,000,000 \times 0.08) + (€4,000,000 \times 0.08)$$

$$\text{FNII} = (£800,000 - £640,000) - €320,000$$

$$\text{FNII} = £160,000 - €320,000$$

With the indicated exchange rates, these values become,

$$\text{\$NII} = (£160,000 \times \$1.50/£) - (€320,000 \div €1.65/\$)$$

$$\text{\$NII} = \$240,000 - 193,939.39$$

$$\text{\$NII} = \$46,060.61$$

110. What is the net interest income in dollars if the spot prices at the end of the year are \$1.35/£ and €1.35/\$ and the liabilities instead cost 7 percent instead of 8 percent?
- A. \$1,080,000  
0.
- B. \$116,592.5**  
9.
- C. \$100,567.4  
5.
- D. \$112,677.9  
4.
- E. \$120,009.7  
6.

Spot prices at year-end of \$1.35/£ and €1.35, and liabilities pay 7.0 percent

$$\text{FNII} = (£10,000,000 \times 0.08) - (£8,000,000 \times 0.07) + (£4,000,000 \times 0.07)$$

$$\text{FNII} = (£800,000 - £560,000) - €280,000$$

$$\text{FNII} = £240,000 - €280,000$$

With the indicated exchange rates, these values become,

$$\$ \text{NII} = (£240,000 \times \$1.35/£) - (€280,000 \div €1.35/\$)$$

$$\$ \text{NII} = \$324,000 - 207,407.41$$

$$\$ \text{NII} = \$116,592.59$$

111. If the year-end spot exchange rate for the British pound is \$1.50/£ and the liabilities pay 8 percent, what is the maximum that the € can appreciate and the bank still maintain a zero profit?

A. €1.30/

\$.

**B. €1.33/**

\$.

C. €1.35/

\$.

D. €1.50/

\$.

E. €1.60/

\$.

If the spot exchange rate for the pound is \$1.50/£ and liabilities pay 8.0 percent,

$$FNII = (£10,000,000 \times 0.08) - (£8,000,000 \times 0.08) + (€4,000,000 \times 0.08)$$

$$FNII = (£800,000 - £640,000) - €320,000$$

$$FNII = £160,000 - €320,000$$

The break-even exchange rate with the euro can be found as follows

$$\$NII = 0 = (£160,000 \times \$1.50/£) - (€320,000 \div €y.yy/\$)$$

$$\$240,000 = €320,000 \div €y.yy/\$$$

$$€y.yy = €320,000 \div 240,000$$

$$= €1.333/\$$$