

Chapter 2

Analyzing Bank Performance

1. Which of the following is not a characteristic of a typical commercial bank?
 - a. Most banks own few fixed assets.
 - b. Most banks have a high degree of operating leverage.
 - c. Most banks have few fixed costs.
 - d. Many bank liabilities are payable on demand.
 - e. Banks generally operate with less equity capital than non-financial firms.

Answer: b

2. Bank assets fall into each of the following categories except:
 - a. loans.
 - b. investment securities.
 - c. demand deposits.
 - d. noninterest cash and due from banks.
 - e. other assets.

Answer: c

3. Typically, “Call loans” are:
 - a. residential mortgages.
 - b. farm loans.
 - c. demand deposits.
 - d. payable on demand.
 - e. automobile loans.

Answer: d

4. A loan to an individual to purchase a home would be considered to be a:
 - a. consumer loan.
 - b. commercial loan.
 - c. agricultural loan.
 - d. construction loan.
 - e. real estate loan.

Answer: e

5. Which of the following would not be considered a commercial loan?
 - a. An interim construction loan
 - b. A working capital loan
 - c. A loans to another financial institution
 - d. A loan to purchase a piece of industrial equipment
 - e. A loan to the State of Illinois

Answer: a

6. Banks generate their largest portion of income from:
- a. loans.
 - b. short-term investment.
 - c. demand deposits.
 - d. long-term investments.
 - e. certificates of deposit.

Answer: a

7. Loans typically fall into each of the following categories except:
- a. real estate.
 - b. individual.
 - c. commercial.
 - d. agricultural.
 - e. municipal.

Answer: e

8. Which of the following adjustments are made to gross loans and leases to obtain net loans and leases?
- a. The loan and lease loss allowance is subtracted from gross loans
 - b. Unearned income is subtracted from gross interest received
 - c. Investment income is added to gross interest received
 - d. a. and b.
 - e. a. and c.

Answer: d

9. An example of a contra-asset account is:
- a. the loan and lease loss allowance.
 - b. unearned income.
 - c. buildings and equipment.
 - d. revenue bonds.
 - e. the provision for loan loss.

Answer: a

10. Which of the following bank assets is the most liquid?
- a. Long-term investments
 - b. Short-term investments
 - c. Loans
 - d. Demand deposits
 - e. Unearned income

Answer: b

11. Which of the following would a bank generally classify as a short-term investment?
- a. Demand deposits
 - b. Deposits at the Federal Reserve
 - c. Repurchase agreements
 - d. Fed Funds purchased
 - e. Vault cash

Answer: c

12. All other things constant, securities that are extremely liquid:
- a. earn higher rates of return than securities that are less liquid.
 - b. have a longer maturity than less liquid securities.
 - c. have lower risk than less liquid securities.
 - d. a. and b.
 - e. b. and c.

Answer: c

13. Which of the following would a bank generally classify as a long-term investment?
- a. Treasury bill
 - b. Vault cash
 - c. Cash items in process of collection
 - d. Municipal bond
 - e. Repurchase agreements

Answer: d

14. Securities that are “held-to-maturity” are:
- a. trading account securities.
 - b. recorded on the balance sheet at amortized cost.
 - c. marked-to-market.
 - d. a. and b.
 - e. a. and c.

Answer: b

15. Securities that require unrealized gains or losses to be recorded as a change in stockholder’s equity are called:
- a. held-to-maturity securities.
 - b. trading account securities.
 - c. available-for-sale securities.
 - d. revenue securities.
 - e. repurchase agreements

Answer: c

16. Securities that require unrealized gains or losses to be recorded on the income statement are called:

- a. held-to-maturity securities.
- b. trading account securities.
- c. available-for-sale securities.
- d. revenue securities.
- e. repurchase agreements

Answer: b

17. The largest component of “non- interest cash and due from banks” is:

- a. cash items in process of collection.
- b. deposits held at other financial institutions.
- c. federal funds sold.
- d. vault cash.
- e. loans from the Federal Reserve.

Answer: a

18. The volume of net deferred credit is commonly referred to as:

- a. the burden.
- b. NOW balances.
- c. reserve requirements.
- d. equity.
- e. float.

Answer: e

19. _____ own(s) the bulk of demand deposit accounts.

- a. Consumers
- b. Businesses
- c. State governments
- d. The federal government
- e. Non-profits

Answer: b

20. Which of the following is are only available to non-commercial customers?

- a. Money Market Demand Accounts
- b. Demand deposit accounts
- c. Mortgage loans
- d. Negotiable Orders of Withdrawal (NOW) accounts
- e. Auto leases

Answer: d

21. Checking accounts with unlimited check-writing and pay interest are known as:
- a. demand deposit accounts.
 - b. money market deposit accounts.
 - c. NOW accounts.
 - d. certificates of deposit.
 - e. time deposits.

Answer: e

22. Jumbo CDs that a bank obtains from a third-party broker are called:
- a. money market demand accounts.
 - b. time deposit accounts.
 - c. mortgage loans.
 - d. brokered deposits.
 - e. core deposits.

Answer: d

23. Jumbo certificates of deposit (CDs) typically:
- a. have maturities greater than 10 years..
 - b. are negotiable.
 - c. are \$1 million in size.
 - d. All of the above
 - e. b. and c.

Answer: e

24. Unsecured liabilities created from the exchange of immediately available funds are known as:
- a. federal funds purchased.
 - b. repurchase agreements.
 - c. federal funds sold.
 - d. pledged securities.
 - e. brokered deposits.

Answer: a

25. A bank's core deposits are:
- a. vault cash.
 - b. stable deposits that are not typically withdrawn over short periods of time.
 - c. the bank's deposits at the Federal Reserve.
 - d. the most interest rate sensitive liabilities of a bank.
 - e. deposits held in foreign offices.

Answer: b

26. Core deposits consist of all of the following except:

- a. demand deposits.
- b. NOW accounts.
- c. jumbo certificates of deposit.
- d. savings accounts.
- e. money market demand accounts.

Answer: c

27. Which of the following is not considered a volatile liability?

- a. Jumbo CDs
- b. Deposits in foreign offices
- c. Repurchase agreements
- d. Federal funds sold
- e. All of the above are considered volatile liabilities

Answer: d

28. Which of the following would be the least sensitive to changes in interest rates?

- a. Demand deposits
- b. Repurchase agreements
- c. Federal funds purchased
- d. Eurodollar liabilities
- e. Jumbo CDs

Answer: a

29. The “provision for loan and lease losses”:

- a. are the realized losses from the previous accounting period.
- b. represents management’s estimate of potential lost revenue from bad loans.
- c. determined by the Federal Reserve for all banks.
- d. does not affect net income.
- e. is another name for a bank’s “burden.”

Answer: b

30. A bank’s “burden” is defined as:

- a. net interest income minus non-interest income.
- b. non-interest income minus non-interest expense.
- c. non-interest expense minus non-interest income.
- d. net interest income plus non-interest income.
- e. interest expense plus non-interest expense.

Answer: c

31. Everything else the same, a bank's "burden" would most likely increase given:
- a. a decrease in overhead expenses.
 - b. an increase in interest rates.
 - c. a decrease in interest rates.
 - d. an increase in executive salaries.
 - e. an increase in service charges collected by the bank.

Answer: d

32. Interest income includes:
- a. interest earned on all of the bank's assets.
 - b. fees earned on all of the bank's assets.
 - c. fees earned on all of the bank's deposit accounts.
 - d. all of the above.
 - e. a. and b. only

Answer: e

33. A bank currently owns a municipal bond paying a tax-exempt rate of 5%. If the bank's marginal tax rate is 35%, what is the taxable equivalent yield?
- a. 7.69%
 - b. 3.25%
 - c. 6.75%
 - d. 3.70%
 - e. 9.32%

Answer: a

Municipal Interest Income (Tax Equivalent) = Municipal Interest Income/(1-Tax Rate)
 $.05/(1-.35) = .0769$

34. A bank currently owns a municipal bond paying a tax-exempt rate of 6.5%. If the bank's marginal tax rate is 40%, what is the taxable equivalent yield?
- a. 3.90%
 - b. 10.83%
 - c. 9.10%
 - d. 4.64%
 - e. 9.32%

Answer: B

Municipal Interest Income (Tax Equivalent) = Municipal Interest Income/(1-Tax Rate)
 $.065/(1-.40) = .1083$

35. A bank currently owns a municipal bond paying a tax-exempt rate of 8%. If the bank's marginal tax rate is 39%, what is the taxable equivalent yield?

- a. 11.12%
- b. 4.88%
- c. 13.11%
- d. 5.76%
- e. 9.32%

Answer: c

Municipal Interest Income (Tax Equivalent) = Municipal Interest Income/(1-Tax Rate)
 $.08/(1-.39) = .1311$

36. Net interest income is the difference between:

- a. gross interest income and net interest expense.
- b. gross interest income and non-interest income.
- c. the burden and realized gains or losses.
- d. non-interest income and net interest expense.
- e. gross interest income and gross interest expense.

Answer: e

37. Non-interest income includes all of the following except:

- a. checking account fees.
- b. insufficient funds service charges.
- c. trust income.
- d. personnel expenses.
- e. all of the above are considered non-interest income.

Answer: d

38. Non-interest income includes all of the following except:

- a. monthly fee income on checking accounts.
- b. late fees on loans.
- c. trust income.
- d. insufficient funds service charges.
- e. all of the above are considered non-interest income.

Answer: b

39. Non-interest expenses includes all of the following except:

- a. occupancy expenses.
- b. goodwill impairment.
- c. insufficient funds service charges.
- d. personnel expenses.
- e. all of the above are considered non-interest expense.

Answer: c

40. Which of the following would be considered an extraordinary item on an income statement of a bank?
- a. Revenue from the sale of the bank's office building.
 - b. Interest income when the spread is greater than 10%.
 - c. Realized security gains.
 - d. Collection on loans already charged off.
 - e. All of the above would be considered extraordinary items.

Answer: a

41. Net income is defined as:
- a. Net interest income – burden + provision for loan loss + securities gains or losses – taxes.
 - b. Net interest income + burden + provision for loan loss + securities gains or losses – taxes.
 - c. Net interest income – burden – provision for loan loss + securities gains or losses – taxes.
 - d. Net interest income – burden – provision for loan loss + securities gains or losses + taxes.
 - e. Net interest income + burden – provision for loan loss + securities gains or losses – taxes.

Answer: c

42. Total operating income is comparable to _____ for a non-financial firm.
- a. sales
 - b. cost of goods sold
 - c. gross profit
 - d. earnings before interest and taxes
 - e. net income

Answer: a

43. Total operating expense is comparable to _____ for a non-financial firm.
- a. sales
 - b. cost of goods sold + other operating expenses
 - c. interest expense
 - d. earnings before taxes
 - e. net income

Answer: b

44. A change in net interest income would occur when:
- a. the composition of the assets of the bank change.
 - b. the average asset yield changes.
 - c. the volume of the assets of the bank change.
 - d. the average interest expense changes.
 - e. All of the above

Answer: e

45. A bank that deals primarily with commercial customers is called:
- a. an Edge Act bank.
 - b. a retail bank.
 - c. a wholesale bank.
 - d. a uniform bank.
 - e. a liability bank.

Answer: c

46. Relative to retail banks, wholesale banks:
- a. deal primarily with consumers.
 - b. operate with fewer commercial deposits.
 - c. purchase more non-core liabilities.
 - d. hold proportionally more consumer loans.
 - e. All of the above.

Answer: c

47. Relative to wholesale banks, retail banks:
- a. focus on individual consumer banking relationships.
 - b. operate with fewer consumer deposits.
 - c. purchase more non-core liabilities.
 - d. hold proportionally more business loans to large firms.
 - e. All of the above.

Answer: a

48. A bank's equity multiplier measures the bank's:
- a. financial leverage.
 - b. operating leverage.
 - c. credit leverage.
 - d. interest rate exposure.
 - e. duration gap.

Answer: a

49. Return on equity can be decomposed into:
- a. the sum of return on assets and the equity multiplier.
 - b. the product of return on assets and the equity multiplier.
 - c. the product of the profit margin and the equity multiplier.
 - d. the sum of the profit margin and the equity multiplier.
 - e. the sum of the profit margin, equity multiplier, and the interest ratio.

Answer: b

50. Return on assets can be calculated as:
- a. return on equity plus the equity multiplier.
 - b. net interest income divided by earning assets.
 - c. asset utilization minus the expense ratio and the tax ratio.
 - d. interest income minus interest expense.
 - e. earning assets divided by average total assets.

Answer: c

51. What is the return on equity for a bank that has an equity multiplier of 14, an interest expense ratio of 4%, and a return on assets of .9%?
- a. 1.3%
 - b. 4.0%
 - c. 9.0%
 - d. 12.6%
 - e. 8.6%

Answer: d

$$\text{ROE} = \text{ROA} * \text{EM} = 0.9\% * 14 = 12.6\%$$

52. What is the return on equity for a bank that has an equity multiplier of 9, an interest expense ratio of 6%, and a return on assets of 1.2%?
- a. 10.8%
 - b. 6.0%
 - c. 8.0%
 - d. 4.8%
 - e. 0.65%

Answer: a

$$\text{ROE} = \text{ROA} * \text{EM} = 1.2\% * 9 = 10.8\%$$

53. What is the return on equity for a bank that has an equity multiplier of 12, an interest expense ratio of 5%, and a return on assets of 1.1%?
- a. 5.0%
 - b. 13.2%
 - c. 8.2%
 - d. 26.4%
 - e. 0.66%

Answer: b

$$\text{ROE} = \text{ROA} * \text{EM} = 1.1\% * 12 = 13.2\%$$

54. Everything else the same, financial leverage works to a bank's advantage when:
- a. the return on assets is positive.
 - b. the return on assets is negative.
 - c. fixed assets are high.
 - d. fixed assets are low.
 - e. a. and d.

Answer: a

55. What is the equity multiplier for a bank where equity is equal to 8% of total assets?
- a. 1.08
 - b. 8.00
 - c. 0.92
 - d. 12.5
 - e. 1.25

Answer: d

$$\text{Total Assets/Total Equity} = 100\%/8\% = 12.5x$$

56. What is the equity multiplier for a bank where equity is equal to 10% of total assets?
- f. 90.00
 - g. 10.00
 - h. 1.10
 - i. 110.00
 - j. 1.00

Answer: b

$$\text{Total Assets/Total Equity} = 100\%/10\% = 10.0x$$

57. What is the equity multiplier for a bank where equity is equal to 12% of total assets?
- a. 83.33
 - b. 1.12
 - c. 0.88
 - d. 12.00
 - e. 8.33

Answer: e

$$\text{Total Assets/Total Equity} = 100\%/12\% = 8.33x$$

58. Net income is calculated as:
- a. total revenue – total operating expenses.
 - b. total revenue – total operating expenses – taxes.
 - c. asset utilization – expense ratio.
 - d. asset utilization – expense ratio – tax ratio.
 - e. interest expense ratio – non-interest expense ratio – provision for loan loss ratio.

Answer: b

59. The expense ratio is calculated as:
- a. total revenue – total operating expenses.
 - b. total revenue – total operating expenses – taxes.
 - c. interest expense ratio – non-interest expense ratio – provision for loan loss ratio.
 - d. asset utilization – expense ratio – tax ratio.
 - e. interest expense ratio + non-interest expense ratio + provision for loan loss ratio.

Answer: e

60. Interest expense varies between banks because of:

- a. rate effects.
- b. composition effects.
- c. volume effects.
- d. all of the above.
- e. a. and c.

Answer: d

Use the following information for questions 61 – 65.

**1st State Bank
Balance Sheet**

Assets

Cash and Due from Banks	\$ 50
Investments	\$ 300
Federal Funds	\$ 10
Loans	\$ 350
Premises	\$ 90
Average Total Assets	\$ 800

Liabilities & Equity

Demand Deposits	\$ 100
Time Deposits	\$ 300
Federal Funds	\$ 300
Equity	\$ 100
Average Total Liabilities & Equity	\$ 800

Income Statement

Interest Income	\$ 100
Interest Expense	\$ 75
Non-Interest Income	\$ 5
Non-Interest Expense	\$ 25
Net Income	\$ 5

61. What is 1st State's return on equity?

- a. 0.6%
- b. 3.8%
- c. 5.0%
- d. 8.2%
- e. 9.8%

Answer: c

ROE = Net Income/Total Equity

ROE = \$5/\$100 = 5%

62. What is 1st State's net interest margin?

- a. 0.6%
- b. 3.8%
- c. 5.0%
- d. 8.2%
- e. 9.8%

Answer: b

Net Interest Margin = Net Interest Income/Earning Assets

Net Interest Income = Interest Income – Interest Expense

Net Interest Income = \$100 - \$75 = \$25

Earning Assets = Investments + Federal Funds + Loans

Earning Assets = \$300 + \$10 + \$350 = \$660

Net Interest Margin = \$25/\$660 = 3.8%

63. What is the earnings base at 1st State?

- a. 12.5%
- b. 17.5%
- c. 58.5%
- d. 75.5%
- e. 82.5%

Answer: e

Earnings Base = Earning Assets/Total Assets

Earning Assets = Investments + Federal Funds + Loans

Earning Assets = \$300 + \$10 + \$350 = \$660

Earnings Base = \$660/\$800 = 82.5%

64. What is 1st State's burden?

- a. 2.5%
- b. 17.5%
- c. 25.0%
- d. 75.5%
- e. 82.5%

Answer: a

Burden = (Non-Interest Expense – Non-Interest Income)/Average Total Assets

Burden = (\$25 - \$5)/\$800 = 2.50%

65. What is 1st State's efficiency ratio?

- a. 2.53%
- b. 17.51%
- c. 0.83%
- d. 0.45%
- e. 83.3%

Answer: e

Efficiency Ratio = Non-Interest Expense/(Net Interest Income + Non-Interest Income)

Net Interest Income = Interest Income – Interest Expense

Net Interest Income = \$100 - \$75 = \$25

Efficiency Ratio = \$25/(\$25 + \$5) = 83.3%

Use the following information for questions 66 – 70.

1st National Bank

Balance Sheet

Assets

Cash and Due from Banks	\$ 75
Investments	\$ 400
Federal Funds	\$ 18
Loans	\$ 402
Premises	\$ 105
Average Total Assets	\$ 1,000

Liabilities & Equity

Demand Deposits	\$ 150
Time Deposits	\$ 325
Federal Funds	\$ 425
Equity	\$ 100
Average Total Liabilities & Equity	\$ 1,000

Income Statement

Interest Income	\$ 150
Interest Expense	\$ 110
Non-Interest Income	\$ 11
Non-Interest Expense	\$ 38
Net Income	\$ 13

66. What is 1st State's return on equity?

- a. 0.6%
- b. 3.8%
- c. 5.0%
- d. 8.2%
- e. 13.0%

Answer: e

ROE = Net Income/Total Equity

ROE = \$13/\$100 = 13%

67. What is 1st State's net interest margin?

- a. 0.6%
- b. 3.8%
- c. 4.9%
- d. 8.2%
- e. 9.8%

Answer: c

Net Interest Margin = Net Interest Income/Earning Assets

Net Interest Income = Interest Income – Interest Expense

Net Interest Income = \$150 - \$110 = \$40

Earning Assets = Investments + Federal Funds + Loans

Earning Assets = \$400 + \$18 + \$402 = \$820

Net Interest Margin = \$40/\$820 = 4.9%

68. What is the earnings base at 1st State?

- a. 12.5%
- b. 17.0%
- c. 58.5%
- d. 75.5%
- e. 82.0%

Answer: e

Earnings Base = Earning Assets/Total Assets

Earning Assets = Investments + Federal Funds + Loans

Earning Assets = \$400 + \$18 + \$402 = \$820

Earnings Base = \$820/\$1,000 = 82.0%

69. What is 1st State's burden?

- a. 2.7%
- b. 17.5%
- c. 25.0%
- d. 75.5%
- e. 82.5%

Answer: a

Burden = (Non-Interest Expense – Non-Interest Income)/Average Total Assets

Burden = (\$38 - \$11)/\$1,000 = 2.70%

70. What is 1st State's efficiency ratio?

- a. 2.5%
- b. 17.5%
- c. 25.0%
- d. 74.5%
- e. 82.5%

Answer: d

Efficiency Ratio = Non-Interest Expense/(Net Interest Income + Non-Interest Income)

Net Interest Income = Interest Income – Interest Expense

Net Interest Income = \$150 - \$110 = \$40

Efficiency Ratio = \$38/(\$40 + \$11) = 74.5%

71. The efficiency ratio measures:

- a. a bank's ability to control interest expense.
- b. a bank's ability to control non-interest expense.
- c. a bank's spread.
- d. a bank's burden.
- e. a bank's operating leverage.

Answer: b

72. Which of the following would not be considered an earning asset?

- a. Cash due from banks
- b. Municipal securities
- c. Treasury bills
- d. Repurchase agreements
- e. Mortgages

Answer: a

73. The goal of a bank manager should be:

- a. to maximize earnings.
- b. to minimize taxes.
- c. to minimize risk.
- d. to maximize shareholder wealth.
- e. to maximize net interest income.

Answer: d

74. Which of the following is not one of the risks identified by the Federal Reserve Board?

- a. Credit Risk
- b. Market Risk
- c. Ownership Risk
- d. Reputation Risk
- e. Legal Risk

Answer: c

75. Which type of risk is the most difficult to quantify?

- a. Credit risk
- b. Liquidity risk
- c. Legal risk
- d. Operating risk
- e. Market risk

Answer: c

76. A savings and loan that sold off their junk bond holdings and issued consumer auto loans with the proceed would most likely be:

- a. decreasing their market risk.
- b. increasing their capital risk.
- c. decreasing their legal risk.
- d. increasing their operating risk.
- e. reducing their credit risk.

Answer: e

77. Recoveries refer to:

- a. the dollar value of loans actually written off as uncollectible.
- b. the dollar amount of loans that were previously charged-off but now collected.
- c. net charge-offs.
- d. loans not currently accruing interest.
- e. loans that regulators have required the bank to “recover”.

Answer: b

78. Classified loans:

- a. still accrue interest.
- b. have not had a principle or interest payment made in 90 days.
- c. exactly offset gross charge-offs.
- d. are loans in which regulators have forced management to set aside reserves.
- e. all of the above

Answer: d

79. The risk that a bank cannot meet payment obligations in a timely and cost-effective manner is known as:

- a. credit risk.
- b. capital risk.
- c. market risk.
- d. operating risk.
- e. liquidity risk.

Answer: e

80. All of the following are examples of operational risk except:

- a. fraud.
- b. compromised security data.
- c. theft.
- d. business interruptions.
- e. default on a loan.

Answer: e

81. Which of the following is not part of the CAMELS ratings?

- a. Capital adequacy.
- b. Asset quality.
- c. Earnings quality.
- d. Liabilities quality.
- e. Sensitivity to market risk.

Answer: d

True/False

82. Subordinated bank debt is federally insured.

Answer: False

83. Total revenue is the same as total operating income.

Answer: True

84. Retail banks deal primarily with commercial customers.

Answer: False

85. When constructing ratios, average balance sheet data should be used.

Answer: True

86. Balance sheet items are considered stock variables.

Answer: True

87. Regarding interest expense, volume effects suggest that the mix of liabilities among banks may differ.

Answer: False

88. Banks that use preferred stock understate their ROE relative to banks that do not use preferred stock.

Answer: False

89. Eliminating borrowing from the Federal Reserve at the end of fiscal year is an example or “window dressing.”

Answer: True

90. Smaller banks generally employ fewer people per dollar of assets than larger banks.

Answer: False

91. Regarding interest expense, volume effects suggest that the mix of liabilities among banks may differ.

Answer: False

Essay Questions

92. What are the principal sources of risk facing a bank manager?

93. What are some of the advantages and disadvantages of using ratio analysis to examine the financial performance of a bank?

94. From a financial statement perspective, discuss how banks differ from non-financial companies.

95. What are some key differences in the financial ratios for small banks versus large banks?