***Financial Markets and Institutions, 7e* (Saunders)**

**Chapter 21 Managing Liquidity Risk on the Balance Sheet**

1) If a bank meets a net deposit drain by borrowing money in the Fed funds market, it is using purchased liquidity.

2) A corporation informs the bank that it will immediately draw down the maximum amount on its credit line. This is an example of liability side risk.

3) If a bank's brokered deposits increase $3 million and their savings accounts decrease $1 million, then core deposits decreased.

4) A bank's financing gap is calculated as average loans minus average deposits plus liquid assets.

5) Repos and Fed funds borrowed are examples of stored liquidity.

6) When money market interest rates are higher than deposit rates, using purchased liquidity to replace deposit drains can reduce a bank's profit margin.

7) Using stored liquidity to offset a deposit drain will reduce the size of the bank, but using purchased liquidity to offset the drain will not.

8) Property and casualty insurers have a greater need for liquidity than life insurers.

9) Relying on purchased liquidity is more risky than relying on stored liquidity.

10) Closed-end mutual funds have less need to maintain liquid asset holdings than open-end mutual funds.

11) The financing gap is defined as average core deposits minus average borrowed funds.

12) The greater the discount required to sell assets quickly, the higher the value of the bank's liquidity index.

13) The fear that liquidity problems at one bank may cause depositors to worry about the solvency of other banks is called the disease effect.

14) Stored liquidity management occurs when a DI uses its reserves held at the Federal Reserve to meet the net deposit drain.

15) A DI has highly liquid assets if there is a large price difference between immediate fire-sale asset prices and fair market prices of assets.

16) A widely accepted method measuring liquidity risk exposure of a DI is core deposits over total assets ratio.

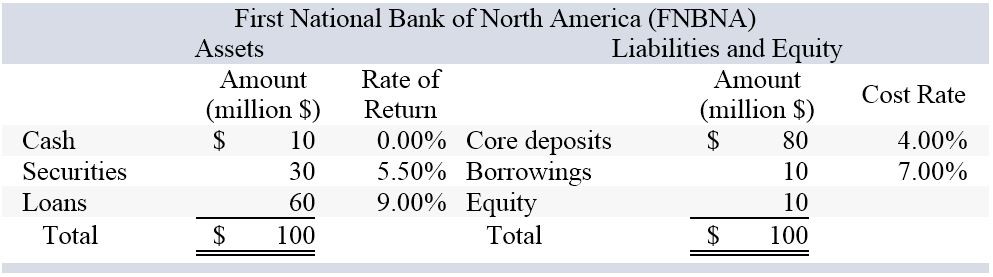
17) Liquidity planning is the only viable method that eliminates liquidity risk from DIs that currently exists.

18) Contagion effect occurs when a failure of one DI leads to concerns among depositors about the solvency risk of the other DIs.

19) Life insurers and property and casualty insurers have federal guarantee programs similar to DIs deposit insurance.

20) When investment funds experience dramatic liquidity needs, the liquidated assets are distributed to fund's shareholders on first-come, first-served basis.

21)



If FNBNA is expecting a $10 million net deposit drain and the securities liquidity index is 0.97, by how much will pretax net income change if the drain is funded entirely through securities sales?

A) −$306,122

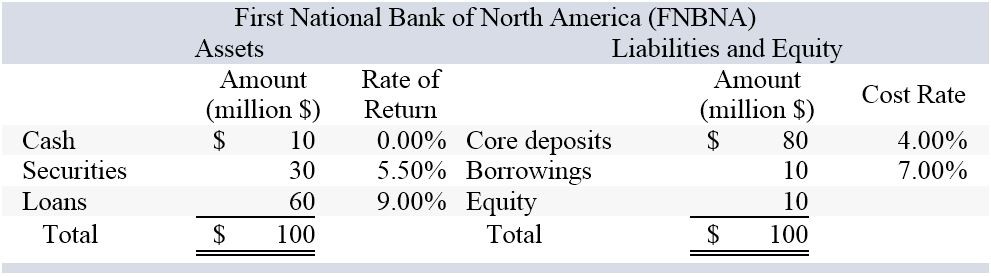
B) −$150,000

C) −$375,339

D) −$476,289

E) −$474,490

22)



If FNBNA is expecting a $15 million net deposit drain and the securities liquidity index is 0.98, how many securities would have to be liquidated if the bank used only its securities to fund the expected deposit drain?

A) $15,000,000

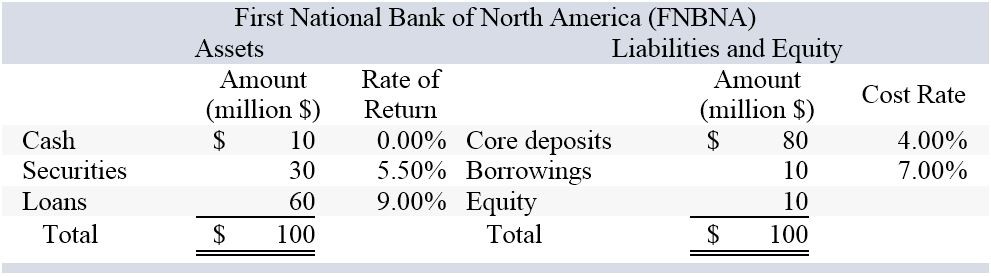
B) $16,444,331

C) $15,600,000

D) $15,306,122

E) $16,772,345

23)



If FNBNA is expecting a $20 million net deposit drain and the bank wishes to fund the drain by borrowing more money, how much will pretax net income change if the borrowing cost is the same as on its existing borrowed funds?

A) $600,000

B) −$312,000

C) −$2,000,000

D) −$600,000

E) $312,000

24) Which one of the following situations creates the most liquidity risk?

A) Long-term assets funded by long-term liabilities

B) Short-term assets funded by short-term liabilities

C) Long-term assets funded by short-term liabilities

D) Short-term assets funded by long-term liabilities

E) Long-term liabilities funded by short-term assets

25) Which of the following results in a net liquidity drain?

A) Demand deposits increase $100; loans increase $50.

B) Demand deposits decrease $100; loan repayments are $150.

C) Repurchase agreements increase $100; demand deposits decrease $50.

D) Reverse repurchase agreements increase $50; demand deposits decrease $50.

E) None of these choices are correct.

26) A bank meets a deposit withdrawal with one of the following alternatives. Which one of the following is an example of using stored liquidity to meet a deposit withdrawal?

A) Increasing Eurodollar deposits

B) Contacting an investment banker to find new corporate deposits

C) Increasing Fed funds borrowed

D) Issuance of a negotiable CD

E) Selling the bank's holdings of T-bills

27)

|  |  |  |  |
| --- | --- | --- | --- |
| Second National Bank (SNB) (million $) | | | |
| Funds borrowed | $ | 6,500 |  | |
| Maximum amount SNB can still borrow | $ | 8,500 |  | |
| Cash-type assets | $ | 3,700 |  | |
| Excess cash reserves | $ | 80 |  | |
| Federal Reserve borrowings | $ | 20 |  | |

What are Second National Bank's total sources of liquidity?

A) $6,520

B) $13,500

C) $14,200

D) $12,280

E) $5,760

28)

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30) If a bank relies solely on purchased liquidity, the bank will likely

A) maintain large amounts of liquid assets.

B) fund its loan commitments with asset sales.

C) be required to borrow money at short notice.

D) be required to raise equity capital quickly.

E) be forced to liquidate liabilities at fire-sale prices.

31) Which one of the following is a source of liquidity risk for a bank?

A) Predicted increase in net deposit drain before Christmas

B) Maturation of notes payable

C) Corporation calling in a bond the bank is holding

D) A natural disaster in the bank's community

E) None of these choices are correct.

32) Bank A has a loan-to-deposit ratio of 110 percent, core deposits equal 55 percent of total assets, and borrowed funds are 25 percent of assets. Bank B has a loan-to-deposit ratio of 80 percent. Core deposits are 65 percent of assets and borrowed funds are 5 percent of assets. Which bank has more liquidity risk? Ceteris paribus, which bank will probably be more profitable when interest rates are low?

A) Bank A; Bank A

B) Bank A; Bank B

C) Bank B; Bank A

D) Bank B; Bank B

E) You can't tell.

33) Core deposits include all but which of the following?

A) Retail demand deposits

B) NOW accounts

C) MMDAs

D) Savings accounts

E) Negotiable CDs

34) BIS' Basel Committee on Banking Supervision provides regulatory standards for liquidity risk supervision. Which of the following are among the new ratios required to be maintained by large DIs?

I. Liquidity coverage ratio

II. Net stable funds ratio

III. Financing gap over total asset ratio

IV. Core deposits over financing gap ratio

A) I only

B) II and III

C) I and II only

D) II and III only

E) I, II, III, and IV

35) A financial intermediary has two assets in its investment portfolio. It has 35 percent of its security portfolio invested in one-month Treasury bills and 65 percent in real estate loans. If it liquidated the bills today, the bank would receive $98 per hundred of face value. If the real estate loans were sold today, they would be worth $85 per 100 of face value. In one month, the real estate loans could be liquidated at $94 per 100 of face value. What is the intermediary's one-month liquidity index?

A) 0.93

B) 0.92

C) 0.91

D) 0.90

E) 0.89

36) When calculating the liquidity index, the larger the discount from fair value, the \_\_\_\_\_\_\_\_ the liquidity index; and the \_\_\_\_\_\_\_\_ the liquidity risk the FI faces.

A) larger; greater

B) smaller; greater

C) larger; lower

D) smaller; lower

37) An increasingly positive financing gap can indicate \_\_\_\_\_\_\_\_ liquidity risk because it may indicate \_\_\_\_\_\_\_\_ deposits and/or rising loan commitments.

A) increasing; increasing

B) decreasing; decreasing

C) increasing; decreasing

D) decreasing; increasing

38) Insurance industry guarantee funds do not eliminate runs on insurers because

I. the funds are not backed by the federal government.

II. the funds lack permanent reserves to back policies.

III. the size of the required contributions differs widely from state to state.

A) I only

B) II only

C) III only

D) I and III only

E) I, II, and III

39) A married couple each has an IRA and deposits at a bank. The couple also has one child. If they had the money, what is the total amount of their accounts that could be insured at one bank?

A) $250,000

B) $750,000

C) $1,250,000

D) $1,500,000

E) $2,000,000

40) Which of the following can create liquidity risk for a life insurer?

I. Unexpectedly high number of policy surrenders

II. Unexpectedly low number of new policies sold

III. Unexpectedly high insurance claims filed by policyholders

A) I only

B) II only

C) I and II only

D) II and III only

E) I, II, and III

41) Runs on insurance firms are more likely to occur than runs on banks even in states with guaranty funds for insurers because these funds generally

A) lack a permanent reserve fund.

B) do not repay insurance policyholders immediately.

C) lack federal government backing.

D) All of these choices are correct.

E) None of these choices are correct.

42) The two main reasons why runs on U.S. banks no longer occur are

A) reserve requirements and higher bank liquidity ratios.

B) a required positive financing gap and bank use of purchased liquidity.

C) the FDIC and the discount window.

D) insurance funds operated by individual states and tighter bank regulations.

E) None of these choices are correct.

43) In the absence of deposit insurance, a deposit is a \_\_\_\_\_\_\_\_ to the bank's assets.

A) pro rata claim

B) first-come/first-serve claim

C) full pay or no pay claim

D) pro rata claim and first come/first serve claim

E) first come/first serve claim and full pay or no pay claim

44) How does reliance on purchased liquidity rather than core deposits affect a bank?

I. Increases the risk of a liquidity crisis

II. Allows the bank to adjust to deposit drains without affecting bank size

III. Increases overall interest sensitivity of the bank's profits to interest rates

A) I only

B) II only

C) I and II only

D) II and III only

E) I, II, and III

45) Which of the following statements, if any, is (are) true?

I. Mutual funds never have runs.

II. Funds invested with insurers are as safe as deposits at a bank.

III. Pension funds generally have less liquidity risk than banks.

A) All three are true.

B) Only I is true.

C) Only II and III are true.

D) Only III is true.

E) None of these choices are correct.

46) Discount window borrowing is available to

I. banks.

II. thrifts.

III. investment banks.

IV. nonfinancial corporations.

A) I and II only

B) I and III only

C) I, II, and III only

D) II, III, and IV only

E) I, II, III, and IV

47) The amount that a policyholder receives when he or she cashes in an insurance policy is called the

A) cash value.

B) surrender value.

C) face value.

D) policy value.

E) fair market value.

48) The greater the \_\_\_\_\_\_\_\_ ratio, the more liquid is the institution, ceteris paribus.

A) borrowed funds to total assets

B) core deposits to total assets

C) loans to deposits

D) unused commitments to lend to total assets

E) unused commitments to lend to liquid assets

49) The BIS guidelines for monitoring intraday liquidity risk at internationally active banks include which of the following:

I. Measure expected daily gross liquidity inflows and outflows, anticipate the intraday timing of these flows where possible, and forecast the range of potential net funding shortfalls that might arise at different points during the day.

II. Monitor intraday liquidity positions against expected activities and available resources.

III. Arrange to acquire sufficient intraday funding to meet intraday objectives.

IV. Have the ability to maintain a collateral-to-asset ratio above the minimum required by BIS.

A) I and II only

B) II and III only

C) I, II, and IV only

D) I, II, and III only

E) I, II, III, and IV

50) You have the following data for a bank (million $):

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 day | | |  | | 1 month | | | |
| Liabilities due | $ | 23 |  | |  | | $ | 60 |  | |
| Assets maturing | $ | 19 |  | |  | | $ | 35 |  | |
| Saleable assets | $ | 14 |  | |  | | $ | 54 |  | |
| Unused loan commitments | $ | 8 |  | |  | | $ | 100 |  | |
| Access to brokered deposits | $ | 11 |  | |  | | $ | 55 |  | |
| Expected net deposit drains | $ | 12 |  | |  | | $ | 98 |  | |

Calculate the net funding requirement for each period and the cumulative net funding requirement over the month. What does the plan reveal?

51) Explain how liquidity risk can lead to insolvency risk.

52) What are the major sources of liquidity risk for a bank? For a life insurer?

53) A bank has $6 million in Treasury bills, $3 million in excess reserves at the Fed, $1 million in vault cash, and an $8 million line of credit on the repo market. The bank has borrowed $6 million in Fed funds and $12 million in short-term notes borrowed to finance loans. What is the net liquidity position of the bank and what can you conclude from it?

54) Explain the relationship between each of the following ratios and liquidity risk.

(a) Loan-to-deposit ratio

(b) Borrowed funds to total assets

(c) Loan commitments to total assets

55) Does a positive or a negative financing gap indicate greater liquidity risk? Explain.

56) Describe the major components of a liquidity plan.

57) We rarely see bank runs since the advent of Federal Deposit Insurance, but runs on life insurers and mutual funds do occur even though claimants have pro rata claims in the event of default. Why do these runs still occur?

58) What are the trade-offs involved between storing liquidity and purchasing liquidity as needed for a bank?

59) Why might a bank face abnormal deposit drains?

60) The Fed now operates the discount window differently than it used to. What are the major changes?