**Chapter Nine**

**Bank Management and Risk**

Learning Objectives: After studying this lesson, students will be able to:

* Explain the banking enterprise
* Describe the balance sheet of a bank
* Describe the bank management and profitability
* Describe the cash ratio and reserve requirement

**9.1 Banking Enterprise**

According to Banking Proclamation No. 592/2008, “banking business”means any business that consists of the following activities:

a) Receiving funds from the public through means that the National Bank has declared to be an authorized manner of receiving funds;

b) Using the funds referred to under paragraph (a) of this sub-article, in whole or in part, for the account and at the risk of the person undertaking banking business, for loans or investments in a manner acceptable to the National Bank;

c) The buying and selling of gold and silver bullion and foreign exchange;

d) The transfer of funds to other local and foreign persons on behalf of the banks themselves or their customers;

e) The discounting and negotiation of promissory notes, drafts, bills of exchange and other evidence of debt;

f) Any other activity recognized as customary banking business, which a bank engaged in the activities described from paragraph (a) to (e) of this sub-article may be authorized to undertake by the National Bank.

The bulk of banking business now is carried on by scheduled banks which are the Banking Companies and the nationalized Banks. Bulk of the banking business in the country is in the public sector. There are altogether 4 banks in the public sector, comprising the National Bank of Ethiopia and 14 private commercial banks, in July 2013. The public sector banks account for about 60% of the total banking business in Ethiopia.

The provisions regulating the formation, management and administration of the banking companies in the Private sector are laid down in the Banking Regulation and the commercial code.

The Board of Directors of banking company and the chief executive of such a banking company in the private sector is to be constituted under the Banking Regulation.

The 4 banks in the public sector have their own presidents appointed by the Central Government under the provisions of the Banking regulation.

**Unit versus Branch Banking**

The structure of banking differs from country to country depending upon the socio, economic and political conditions. Broadly speaking, there are two types of banking systems-branch banking and unit banking. There was a growing controversy among economist and bankers as to the relative superiority of the two banking systems. Even now the echo of the controversy has not altogether passed away. The controversy has, however, no practical significance.

**Branch Banking**

The branch banking system is a system in which every commercial bank has a network of branches operating throughout the country. Every bank is a separate legal entity and has one board of directors and one group of shareholders.**Merit of Branch Banking**

Branch banking has certain definite advantage over unit banking. The following are some of them.

1. **Advantage of the large scale – operations**

Firstly, the branch banking system has the advantages of large –scale operations. R.S. Sayers is also of the same view. Efficiency in administration, economy in working, effective central banking control, etc., are some of the important advantages of having branch banking system. The banking functions can be divided into a number of departments and placed under different individuals or groups of individuals. Bank officers can be given management and supervisory training at the training centers established for that specific purpose. Expert advice from the head office is always available to all the branches.

1. **Economy of reserves**

Every bank is supposed to keep certain of its total deposits as cash reserves in order to gain and retain the public confidence at large. But profitability is an opposing consideration. The greater the amount of cash with the banks, the lesser the profitability and the lesser the amount of cash with the banks, the greater the profitability. In branch banking, however, the existence of a large number of branches enables a bank to keep the reserves at as low a level as possible so that the profit-earning capacity of the bank would not reduced.

1. **Proper distribution of capital**

Branch banking makes possible the movement of capital from one place to another through the branches of a bank. Because of such transfers of capital, there are certain advantages. Firstly, funds can be transferred from those places where they are abundant to those places where they are scarce. Secondly, the disparities in the different rates of interest ruling at different places can be largely mitigated (allivate). Thirdly, idle capital in one lace can be transferred to another place where it can be profitability invested. Fourthly, capital is put to the most productive use. Lastly, the profit-earning capacity of the bank is greatly increased.

1. **Loans and advantages given on merits**

Under the system of branch banking, local influential, but not credit-worthy persons cannot secure any loans or advance from the bank because the branch manager can always shift the responsibility of refusal on to the head office at a far off city. This is because loans and advances are made on the basis of merits of the purposes for which they are sought by the customers.

1. **Remittance business made easy**

When the bank has several branches in different places, remittance business can be performed with great ease or with little difficulty.

1. **Benefit to small communities**

Even small communities enjoy the advantage of the services of the more powerful and sunder banks.

1. **Geographical spreading of risks**

When a bank has its branches at different localities, it can minimize its risks because the losses incurred in depressed areas can be offset by the profits earned in prosperous areas. For example, when English banks incurred heavy losses due to the depression in the cotton textile industry in Lancashire in 1929, the losses were made up by the profits earned in other areas. Thus, risks can be spread all over the country under branch banking system.

1. **Large financial resources**

The financial resources of branch banks are of greater magnitude. Hence, the requirement of large customers can be easily met; loans and advances can be made on more liberal terms; and they are capable of withstanding greater shocks. Thus the branch banking has a sound and strong financial stability.

**Demerits of Branch Banking**

The system of branch banking has many disadvantages. The following are some of them.

1. **Delay in transactions**

The branch managers do not have adequate powers in granting large loans and they have to get the approval of the head office before transacting such large business. This means delay. But this argument is not valid in these days because the branch managers are in close touch with the head office through telephone and telegram.

1. **Lack of sympathy for local needs**

The branch managers do not have any knowledge about the local conditions or local problems and difficulties or local borrowers. This is perhaps, due to the frequent transfer of branch managers. Therefore, the branch banking system does not sympathize with the local needs.

1. **Funds of a region use elsewhere**

Funds of one region or locality may be used in other regions or localities.

1. **Creation of monopoly power**

The branch banking system creates some sort of monopoly power. Under branch banking, there is concentration of financial resources in the hands of a few banks which results in the creation of monopoly.

1. **Competitive waste**

Due to keen competition between the branches of different banks in one region or locality, there is found to be a large wastage of time, energy and financial resources of the region or locality.

1. **Preferential treatment shown to nearby firms**

The branches of the banks show a good deal of preferential treatment to those firms which are situated nearby the branches detrimental to the growth of firms at far off places.

1. **Supervisory problems**

In branch banking, there are many supervisory problems in matters of managing and controlling the far-flung branches of the bank. In the branch offices, there is an ever-present danger of mis-management.

Thus the system of branch banking has both many advantages as well as disadvantages of its own.

**Unit Banking**

A unit banking system is a system in which the business of each bank is confined to a single office which has no branch at all. Each banking company is a separate company, separately licensed, having its own capital, board of directors and shareholders. Generally, there is only one place of operation. However, there may be branches within a strictly limited area. The areas of the operation of the bank as well as the size of the bank are smaller.

**Merit of Unit Banking**

Unit banking system has also some important merits of its own.

1. Resources of the locality are used for the economic development of the locality and are not transferred to other areas.
2. The unit banker has specialized knowledge of the local industries and occupations, customs and prejudices. He can serve the local needs of the small communities in an effective manner. In fact, he pays great attention to the financial problems and needs of the individual enterprises in his area.
3. Since the affairs of the bank are less scattered, there are very few possibilities for fraud and irregularities, management and supervision do not offer any serious problems.
4. Unit banking is free from the diseconomies of large-scale operations which are generally associated with branch banking.

**Disadvantages of Unit Banking**

Among the disadvantages of unit banking, the most important is that a unit bank has limited financial resources and, therefore, cannot withstand a business depression or a run on it. A very important factor which contributes to the low survival rate of a unit bank is its lack of diversification of deposits and assets and specialization in those industries which are located in the area. Any difficulty in these industries will automatically land the bank also in difficulties. In fact, during the Great Depression of 1930’s so many unit banks failed in the U.S.A. – nearly 5,100 banks – that it became clear that such banks were ill-equipped to withstand adversity.

Another demerit of unit banking is that it is not able to provide full and adequate banking facilities to small communities because the area of its operations is restricted and the unit bank may not command adequate resources. Inadequacy of financial resources is responsible for the inability of unit banking system to support an efficient management.

Lastly, the unit banker, being a local man, may have to follow considerations other than strict economic principles in granting loans and advances. For instance, it may be very difficult and even dangerous for the banker to refuse an influential local businessman who may not be so creditworthy. If he lends, the businessman may default and land the bank in difficulties, and if the loan is refused, the unscrupulous businessman may circulate remours about the solvency of the bank and thus bring about the bank’s failure. To sum up, it is agreed that the branch banking system has far more substantial merits and has greater power of survival than the unit banking system. Even in America, traditionally considered as the home of unit banking, the trend since 1930’s has been towards branch banking, or to get the advantages of branch banking by what are known as group banking and chain banking system.

**Other Banking Systems**

There are three other types of banking system also, viz., the group, the chain and the correspondent banks.

Group banking is one where two or more separately incorporated banks are brought under the control of a holding company which may or may not be a banking company. The banks so brought together may be unit banks or branch banks or both.

Chain banks refer to separately incorporated banks brought under common control by a device other than the holding company. This may be through some persons being directors of two or more banking companies or same groups of persons owning them.

Under the correspondent banking system, banks are linked together through deposits by smaller banks of some of their cash reserves with bigger banks. Here the bigger banks with which deposits are so made are called correspondent banks. These banks in turn may deposit some of their cash balances with still bigger banks in metropolitan cities. The correspondent banks have expert consultants whose services can be utilized by other banks depositing cash. The correspondent banks also transfer cash balances of banks.

All these three types enable some of the advantage of branch banking to be enjoyed even by unit banks.

**Deposit Banking Versus Mixed Banking**

Banks and other institutions are classified into deposit banks, investment banks and mixed banks. This classification of banks was made on the basis of the functions that the banks perform. A very rigid functional classification is not only very difficult, but also very unrealistic. However such a classification is necessary to understand and appreciate the nature and functions of different banking institutions.

**Deposit Banking**

Deposit Banking is that system of banking in which the commercial banks pool together the savings of the community and make them available for short-term credit productive undertakings. The commercial banks perform two important functions – of attracting public deposits and of lending them for traders, industrialists and other for short periods by means of advances, overdraft facilities, discounting bills, etc. The public deposits with the commercial banks are repayable on demand or at short notice and hence they are lent only for short periods of time to provide only short-term finance or working capital to industries for purchase of raw materials, payment of wages and salaries to workmen, etc. If the commercial banks were to invest these funds in loans extending over long periods of time, the commercial banks will cease to functions both as the custodians as well as trustees for the hard earned money of the vast majority of the depositors. Mackenzie, while describing the deposit banking, writes thus: “The policy of our banks has always been to made advances to trade and industry for current and seasonal requirements and for short periods and not to lend capital for an indefinite term – departure from this policy is attended with risk.”

Deposit banking will prove to be a good system only when the following conditions are present.

1. The existence of adequate facilities and good financial machinery of capital market to provide for the fixed capital requirements of industries is a prerequisite for the successful operation of deposit banking in a country.
2. The banks should not lock up their financial resources for long periods.
3. Intelligent investors with adequate stock of financial resources should be present in the country.

These are the essential conditions for the successful operation of deposit banking. England has all these conditions before 1914. As a result, only pure deposit banking developed there.

**Industrial Banking**

Industrial Banking, also known as investment banking is that system of banking in which the banks play a significant role in the industrialization of the country by providing the longer term capital for establishment, expansion and reorganization of industries in the country. The loanable funds of the industrial banks consist of paid-up capital and long-term debentures and hence are not repayable on demand or at short notice.

The German banks in the period 1848-1870 offer a good example of industrial banking system. In this period, a series of banks were established in Germany with the primary objectives of promoting industrial development by establishing new companies and by consolidating the existing concerns.

The industrial or investment banks had the following advantages. In the first place, the representative of the banks acted on the Board of Supervisors of industrial concerns in order to safeguard the interest of the banks.

In the second place, the banks avoided the risks involved in the provision of long-term finance by making every line of their activity self-balancing. This they could well do by using short-term financial resources (deposits) for short term loans and long terms financial resources (capital and reserves) only for long-term loans.

In the third place, the industrial banks have a good amount of large capital and reserve resources. They were, therefore, in a better position to provide long-term finance for industries.

In the fourth place, the banks acted as an association known as Consortium or Syndicate thereby spreading the risks over a number of banking companies.

In the fifth place, the banks were in a special and advantageous position to perform useful functions to investors.

In the last place, the German banks had very high order of management. Competent experienced and honest men became the managers of the banks.

**Making Banking**

Now-a-days, the trend has been towards the establishment of mixed banks. Mixed banking system is that system of banking which combines deposit (commercial) banking and industrial banking. In other words, where the commercial banks themselves act as industrial banks, they are known as mixed banks. The mixed banks attract deposits from the general public and provide short-term, medium-term and long-term capital to industries. This mixed banking is the most common form of banking everywhere Germany, Austria, Switzerland and Italy are good examples of countries having mixed banking system.

In India, there has been a long-standing controversy between two groups of men, one for introducing mixed in India and the other against it. The advocates of mixed banking in India were very much influenced by the rapid industrialization of Germany in the last quarter of the 19th century. Therefore they recommended the introduction of mixed banking in India for a rapid industrial development in India. But the antagonists were strongly against the establishment of mixed banking in India. They listed down the following arguments against mixed banking. Firstly, the small size of banks and their meager capital resources do not warrant the undertaking of risky lines of business by the commercial banks. Secondly, the deposits of the banks are of short-term nature and they may be withdrawn at any time on demand or at short notice. Thirdly, mixed banking requires technical and entrepreneurial skill and Indians do not posses it. Fourthly, the banks may be tempted to provide more and more short-term finance. Fifthly, interlocking of banking funds has been an evil associated with Indian banking system for quite a long time. The bank’s funds may be utilized by the same persons on the boards of the commercial banks. Finally, a German banking authority said that Indian banks are weaker and it will be detrimental to the growth of both the banks as well as industries if these banks were to participate in industrial financing.

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| ***Activity 9.1****Refer to the Ethiopian banking industry specially the development of private banks as of post 1991 G.C.* |

**9.2 Balance Sheet of a Bank**

The balance sheet of a commercial bank is a statement of its assets and liabilities. Assets are what others owe the bank, and what the bank owes others constitutes its liabilities. The business of a bank is reflected in its balance sheet and hence its financial position as well. The balance sheet is issued usually at the end of every financial year of the bank.

The balance sheet of the bank comprises of two sides; the assets side and the liabilities side. It is customary to record liabilities on the left side and assets on the right side. The following is the proforma of a balance sheet of the bank.

 **Balance Sheet of the Bank**

|  |  |
| --- | --- |
| **Assets** | **Liabilities** |
| 1. Cash
2. Cash on hand
3. Cash with central bank and other banks
4. Money at call and short notice
5. Bills discounted
6. Bills for collection
7. Investments
8. Loans and advances
9. Acceptances and endorsement
10. Fixed assets
 | 1. Capital
2. Authorized capital
3. Issued capital
4. Subscribed capital
5. Paid-up-capital
6. Reserve fund
7. Deposits
8. Borrowings from other banks
9. Bills payable
10. Acceptances and endorsements
11. Contingent liabilities
12. Profit and loss account
13. Bills for collection
 |

**Liabilities**

Liabilities are those items on account of which the bank is liable to pay others. They denote other’s claims on the bank. Now we have to analyze the various items on the liabilities side.

1. **Capital:** The bank has to raise capital before commencing its business. Authorized capital is the maximum capital up to which the bank is empowered to raise capital by the Memorandum of Association. Generally, the entire authorized capital is not raised from the public. That part of authorized capital which is issued in the form of shares for public subscription is called the issued capital. Subscribed capital represents that part of issued capital which is actually subscribed by the public. Finally, paid-up capital is that part of the subscribed capital which the subscribers are actually called upon to pay.

2. **Reserve Fund:** Reserve fund is the accumulated undistributed profits of the bank. The bank maintains reserve fund to tide over any crisis. But, it belongs to the shareholders and hence a liability on the bank. In India, the commercial bank is required by law to transfer 20 per cent of its annual profits to the Reserve fund.

3. **Deposits:** The deposits of the public like demand deposits, savings deposits and fixed deposits constitute an important item on the liabilities side of the balance sheet. The success of any banking business depends to a large extent upon the degree of confidence it can instill in the minds of the depositors. The bank can never afford to forget the claims of the depositors. Hence, the bank should always have enough cash to honour the obligations of the depositors.

4. **Borrowings from Other Banks:** Under this head, the bank shows those loans it has taken from other banks. The bank takes loans from other banks, especially the central bank, in certain extraordinary circumstances.

5. **Bills Payable:** These include the unpaid bank drafts and telegraphic transfers issued by the bank. These drafts and telegraphic transfers are paid to the holders thereof by the bank’s branches, agents and correspondents who are reimbursed by the bank.

6. **Acceptances and Endorsements:** This item appears as a contra item on both the sides of the balance sheet. It represents the liability of the bank in respect of bills accepted or endorsed on behalf of its customers and also letters of credit issued and guarantees given on their behalf. For rendering this service, a commission is charged and the customers to whom this service is extended are liable to the bank for full payment of the bills. Hence, this item is shown on both sides of the balance sheet.

7. **Contingent Liabilities:** Contingent liabilities comprise of those liabilities which are not known in advance and are unforeseeable. Every bank makes some provision for contingent liabilities.

8. **Profit and Loss Account:** The profit earned by the bank in the course of the year is shown under this head. Since the profit is payable to the shareholders it represents a liability on the bank.

9. **Bills for Collection:** This item also appears on both the sides of the balance sheet. It consists of drafts and hundies drawn by sellers of goods on their customers and are sent to the bank for collection, against delivery documents like railway receipt, bill of lading, etc., attached thereto. All such bills in hand at the date of the balance sheet are shown on both the sides of the balance sheet because they form an asset of the bank, since the bank will receive payment in due course, it is also a liability because the bank will have to account for them to its customers.

**Assets**

According to Crowther, the assets side of the balance sheet is more complicated and interesting. Assets are the claims of the bank on others. In the distribution of its assets, the bank is governed by certain well defined principles. These principles constitute the principles of the investment policy of the bank or the principles underlying the distribution of the assets of the bank. The most important guiding principles of the distribution of assets of the bank are liquidity, profitability and safety or security. In fact, the various items on the assets side are distributed according to the descending order of liquidity and the ascending order of profitability.

Now, we have to analyze the various items on the assets side.

1. **Cash:** Here we can distinguish cash on hand from cash with central bank and other banks cash on hand refers to cash in the vaults of the bank. It constitutes the most liquid asset which can be immediately used to meet the obligations of the depositors. Cash on hand is called the first line of defense to the bank.

In addition to cash on hand, the bank also keeps some money with the central bank or other commercial banks. This represents the second line of defense to the bank.

2. **Money at Call and Short Notice:** Money at call and short notice includes loans to the brokers in the stock market, dealers in the discount market and to other banks. These loans could be quickly converted into cash and without loss, as and when the bank requires. At the same time, this item yields income to the bank. The significance of money at call and short notice is that it is used by the banks to effect desirable adjustments in the balance sheet. This process is called ‘Window Dressing’. This item constitutes the ‘third line of defense’ to the bank.

3. **Bills Discounted:** The commercial banks invest in short term bills consisting of bills of exchange and treasury bills which are self-liquidating in character. These short term bills are highly negotiable and they satisfy the twin objectives of liquidity and profitability. If a commercial bank requires additional funds, it can easily rediscount the bills in the bill market and it can also rediscount the bills with the central bank.

4. **Bills for Collection:** As mentioned earlier, this item appears on both sides of the balance sheet.

5. **Investments:** This item includes the total amount of the profit yielding assets of the bank. The bank invests a part of its funds in government and non-government securities.

6. **Loans and Advances:** Loans and advances constitute the most profitable asset to the bank. The very survival of the bank depends upon the extent of income it can earn by advancing loans. But, this item is the least liquid asset as well. The bank earns quite a sizeable interest from the loans and advances it gives to the private individuals and commercial firms.

7. **Acceptances and Endorsements:** As discussed earlier, this item appears as a contra item on both sides of the balance sheet.

8. **Fixed Assets:** Fixed assets include building, furniture and other property owned by the bank. This item includes the total volume of the movable and immovable property of the bank. Fixed assets are referred to as ‘dead stocks’. The bank generally undervalues this item deliberately in the balance sheet. The intention here is to build up secret reserves which can be used at times of crisis.

Balance sheet of a bank acts as a mirror of its policies, operations and achievements. The liabilities indicate the sources of its funds; the assets are the various kinds of debts incurred by a bank to its customers. Thus, the balance sheet is a complete picture of the size and nature of operations of a bank.

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| ***Activity 9.2****Create a balance sheet account in your model bank and make a detailed analysis.* |

**9.3 Bank Management and Profitability**

I. Bank Earnings: Interest Income – Interest Expense – Provision for Loan Losses +

 Noninterest Income – Noninterest Expense

 **A. Gross Interest (and fee) income on loans and securities.**

 1. The major source of income for commercial banks is interest (and fees) on loans.

 a. 4.08% of industry assets in 2006.

 b. More significant for small banks than large banks.

 (1) Small banks tend to make more real estate and agricultural loans. (2) Large banks tend to make more commercial and industrial loans.

 2. Next after loan income is interest from investment securities (more significant for small banks than large banks).

 **B.** **Gross interest expense on deposits and other borrowings.**

1. Interest on deposits is a major expense for banks.

 a. 1.71% of industry assets in 2006.

 b. More significant for small banks than large banks.

 (1) Small banks rely more on deposits than large banks

 (2) Large banks rely more on Fed funds and other non-deposit sources

 2. Gross interest expense on all borrowings: about 2.61% of industry assets.

 **C. Net Interest Margin: Gross Interest Income – Gross Interest Expense**

 1. The “gross profit” of a commercial bank.

 2. Larger as percentage of industry assets for small banks than for large banks.

 a. For small banks, average 3.72% of assets.

 (1) Small banks tend to make more real estate and agricultural loans

 (2) Small banks rely more on demand deposits

 b. For large banks, averages 2.70% of assets,

 (1) Large banks tend to make more commercial and industrial loans

 (2) Large banks rely more on time deposits and non-deposit sources

 **D. Provision for loan losses: An expense item that adds to a bank’s loan loss reserve.**

 1. The loan loss reserve is a “contra” account deducted from gross loans.

 2. Banks add to their loan loss reserve in anticipation of credit quality problems in their loan portfolio.

 **E. Noninterest Income and Expense.**

 1. Noninterest income has grown in importance, especially for large banks.

 a. About 2.16% of industry assets in 2006.

 b. Examples of noninterest income include—

 (1) Service charges and NSF charges on demand deposits

 (2) Fees for other bank services (safe deposit, wire transfer, etc.)

 (3) ATM surcharges

 (4) Commissions on investment and insurance products

 (5) Credit card annual fees

 2. Noninterest expense has generally leveled off with automation, consolidation, and economies of scale.

 a. About 2.88% of industry assets.

 b. Examples of noninterest expense include

 (1) Personnel (small banks are more labor-intensive than large banks)

 (2) Technology (large banks are more automated than small banks)

 (3) Occupancy

 (4) Administration and Compliance

 (5) Marketing

**II. Bank Performance: Return on Average Assets; Return on Average Equity.**

 **A. ROAA: Return on Average Assets = Net Income / Average Assets.**

 1. The key ratio in evaluating quality of bank management.

 2. Tells how well management can exploit a given amount of assets.

 3. Industry average is recently around 1.4%.

**B. ROAE: Return on Average Equity = Net Income / Average Equity Capital.**

 1. Tells shareholders how well management has employed their capital.

 2. Industry average is recently around 13% (banks are highly leveraged).

**III. Bank Management’s Dilemma: Profitability vs. Safety (“Eat well or sleep well”).**

 **A. Three constituencies: shareholders, depositors, regulators.**

 1. Shareholders may sell their stock if bank managers do not generate adequate profits, driving the bank’s stock price lower.

 2. Depositors (especially uninsured ones) may withdraw their balances if bank managers take on too much risk, creating a liquidity crisis for the bank.

 3. If regulators believe that management is imprudent, they may intervene in the management of the bank or even revoke its charter.

 **B. Banks can fail in either of two ways: Insolvency or illiquidity.**

 1. **Insolvency:** Insufficiency of assets to cover liabilities.

 a. Banks are highly leveraged; they lack the equity “cushion” of other firms.

 b. Assets lose value if banks accept too much credit risk or interest rate risk.

 2. **Illiquidity:** Insufficiency of available funds to cover promised disbursements.

a. The most liquid assets also tend to be the least profitable.

 b. Yet disbursement demand must be accommodated:

 (1) Withdrawals by depositors

 (2) Loan proceeds to borrowers

 (3) Payments to employees, suppliers, and creditors

 c. Even profitable banks can fail if they become illiquid.

**IV. Liquidity Management: Both sides of the Balance Sheet.**

 **A. Objectives of Liquidity Management**

1. Hold enough “primary reserves” (defined below) to satisfy reserve requirements.

 2. Hold minimum primary and secondary reserves consistent with bank safety.

 3. Minimize opportunity cost of foregone interest on liquid assets.

 **B. Sources of liquidity:**

 1. New deposits

 2. New non-deposit borrowings (e.g. Fed funds)

 3. Loan repayment

 4. Sale of investment securities

 5. Participation or securitization of loans

 6. Sale of other assets

 7. New equity capital

 **C. Liquidity requirements:**

 1. Meet reserve, clearing, and settlement requirements at Fed

 2. Accommodate deposit withdrawals

 3. Pay other liabilities and expenses as they become due

 4. Accommodate loan requests

 **D. Asset management classifies bank assets into four basic groups.**

 1. **Primary Reserves** are the cash assets on a bank’s balance sheet.

 a. Immediately available at no cost, but

 b. Yield no interest, so banks try to minimize holdings of primary reserves.

 c. Primary reserves include—

 (1) Vault cash

 (2) Correspondent balances at other banks

 (3) Excess reserve balances at the Fed

 2. **Secondary Reserves** are short-term assets convertible quickly to cash at a price near their purchase price.

 a. Highly marketable with low default risk or price risk, but

 b. Yield little interest compared to loans or riskier investments.

 c. Secondary reserves include—

 (1) Treasuries

 (2) Agencies

 (3) Reverse repurchase agreements

 3. **Loans** (and leases) are generally less liquid and riskier than other bank assets and thus represent the most potentially profitable use of bank funds.

 4. **Other Investments** include securities purchased chiefly for their income or tax benefits, rather than their liquidity (e.g. municipal bonds).

 E. **Liability management supplements asset management but does not supersede it.**

 1. Liability Management Theory assumes certain types of bank liabilities are very sensitive to interest rate changes.

 a. By raising the rate on these liabilities above the market rate, a bank should immediately attract additional funds.

 b. By lowering the rate, a bank should be able to “run off” funds as the liabilities mature.

 c. “Money Market” strategy, attempted more by large banks.

 2. Bank liabilities used in liability management include—

 a. Negotiable CDs

 b. Fed funds

 c. Repurchase agreements

 d. Commercial paper

 e. Eurodollar borrowings

 3. Three possible uses of liability management:

 a. Counteract deposit inflows and outflows and reduce their variability. Sudden or unexpected deposit outflows can be offset immediately by purchase new funds.

 b. Meet increased loan demand. If expected marginal return on new loans exceeds expected marginal cost of funds, the bank can increase income by funding additional loans through liability management.

 c. Immediately honor funding commitments triggered by off-balance-sheet Contingencies. Banks with access to liability management mechanisms can make contingent commitments confidently.

**V. Capital Management.**

 **A. Roles of Bank Capital**

 1. Financial cushion that enables banks to absorb temporary operating losses.

 2. Helps maintain public confidence in soundness banks and banking system.

 3. Provides some protection for uninsured depositors.

 4. Source of funds for growth (new products, services, or facilities).

**B. Capital Adequacy Regulation**

 1. Basel I (Basel Accords on risk-based capital standards, 1988)

 a. Regulatory definition of bank capital: Tier 1, Tier 2

 (1) **Tier 1 Capital** or “core capital”

 i. common stock

 ii. paid-in surplus

 iii. Undivided profits

 iv. Noncumulative perpetual preferred stock

 v. minority interest in consolidated subsidiaries less intabgibles

 (2) **Tier 2 Capital** or “supplemental capital”

 i. cumulative perpetual preferred stock

 ii. loan loss reserves

 iii. subordinated debt

 iv. mandatory convertible debt

 v. other “hybrid” debt

 b. Risk-weighting of assets

 (1) Riskier assets receive higher weights

 (2) Safer assets receive lower weights

 (3) Conversion factors for off-balance-sheet items (Exhibit 14.10)

 bring percentage of items “on to” balance sheet for risk- weighting purposes c. Minimum capital ratios

 (1) Tier 1 capital at least 4% of risk-weighted assets

 (2) Total capital (Tier 1 + Tier 2) at least 8% of risk-weighted assets

 2. Basel II (2004): more sophisticated modeling of credit, market, and operational risks.

 3. Regulatory sanctions for undercapitalization are severe

**VI. Managing Credit Risk.**

 A**. Managing credit risk of individual lending relationships.**

 1. Identifying and monitoring problem loans.

 a. Changes in payment patterns or credit ratings.

 b. Noncompliance or slow compliance with loan covenants.

 2. Loan workouts: restructuring debts for troubled borrowers.

 a. Emphasis shifts from earnings to recovery.

 b. Typically a specialized area within the lending function.

 **B. Managing credit risk at portfolio level.** 1. Uses of internal credit risk ratings:

 a. Systematic identification and monitoring of problem loans.

 b. Systematic loan loss reserve allocations.

 c. Risk-based loan pricing

 2. Loan portfolio analysis: concentration and diversification by—

 a. Industry

 b. Geographic region

 c. Collateral

 d. Purpose

 **C. Credit Derivatives**.

 1. Example: The “Credit Swap”

 a. Seller of swap essentially guarantees payment of some loan or portfolio of loans

 b. Bank holding loan(s) makes periodic payments to seller of swap

 c. Contracts price according to credit risk

 2. Advantages:

 a. Credit risk is reduced or at least deconcentrated.

 b. Relationship with borrower remains intact.

**VII. Measuring and Managing Interest Rate Risk**

 **A. Measuring Interest Rate Risk: Maturity GAP Analysis**

 1. An asset or a liability with an interest rate subject to change within a year is considered “rate-sensitive”.

2. Maturity GAP: Rate-sensitive assets less rate-sensitive liabilities; GAP=RSA-RSL

a. Positive GAP: RSA > RSL; bank expects rates to rise

(1) If interest rates fall--

 i. More assets than liabilities will reprise downward, ii. Thus reducing net interest income.

(2) If interest rates rise—

 i. More assets than liabilities will reprise upward,

 ii. Thus increasing net interest income

b. Negative GAP = RSA < RSL; bank expects rates to fall

(1) If interest rates fall—

 i. More liabilities than assets will reprise downward,

 ii. Thus increasing net interest income

(2) If interest rates rise—

 i. More liabilities than assets will reprise upward,

 ii. Thus reducing net interest income

 c. Zero GAP: Net interest income unaffected by interest rate fluctuations.

d. The wider the GAP, the greater the effect of interest rate changes on net interest income.

 **B. Managing Interest Rate Risk: Duration GAP Analysis**

1. Maturity GAP provides only an approximate rule for analyzing interest rate risk.

 2. To reduce reinvestment risk, banks try to match the durations of their assets and liabilities, not their maturities.

 a. Duration is a measure of the average time it takes a security (or portfolio) to return its present value.

 b. Duration can also be viewed as the effective time until an asset reprises.

 c. Duration GAP analysis matches cash flows and their reprising capabilities.

1. The change in the value of a portfolio for a given change in interest rates is proportional to portfolio’s duration multiplied by the change in interest rates.
2. Duration GAP: DG = DA – [(MVL/MVA)(DL)]

 Where DA = Portfolio duration of assets

 MVL = Market value of Liabilities

 MVA = Market value of Assets

 DL = Portfolio duration of liabilities

 a. Positive Duration GAP: Assets have longer duration than liabilities; bank expects interest rates to fall.

 (1) If interest rates rise—

 i. More assets than liabilities will lose value,

 ii. Thus reducing the value of the bank’s equity.

 (2) If interest rates fall-

 i. More assets than liabilities will gain value,

 ii. Thus increasing the value of the bank’s equity.

 b. Negative Duration GAP: Liabilities have longer duration than assets; bank expects interest rates to rise.

 (1) If interest rates rise—

 i. More liabilities than assets will lose value,

 ii. Thus increasing the value of the bank’s equity.

 (2) If interest rates fall-

 i. More liabilities than assets will gain value,

 ii. Thus reducing the value of the bank’s equity.

 c. Zero duration GAP: Bank is immunized against interest rate risk.

 d. Duration GAPs are opposite in sign from maturity GAPs for the same risk exposure.

 **C. Value at Risk (VAR) Analysis.** Using historical data, bank estimates mean and σ of changes in underlying risk factors (e.g. interest rates) affecting asset values. Asset duration is used to estimate potential change in value for maximum probable change in risk factor. VAR summarizes the potential for bad outcomes in a single number:

 

 Where: ∆V/∆r = sensitivity of changes in asset value to changes in risk factor

 ∆r\* = potential adverse change in risk factor within relevant time period for given confidence level

**D. Hedging Interest Rate Risk:** reducing or removing the impact, positive or negative, of interest rate fluctuations.

1. “Micro hedging” involves a specific transaction (e.g. matched funding).

2. “Macro hedging” involves the entire balance sheet.

3. Techniques for Hedging Interest Rate Risk.

 a. Asset-sensitive institutions with positive maturity GAP; negative duration GAP; hurt by decreasing interest rates:

 (1) Buy financial futures--falling rates would increase value of contract, offsetting negative impact of GAP

 (2) Buy call options on financial futures

 (3) Swap to increase their variable-rate cash outflows and increase their fixed-rate (long-term) cash inflows

 (4) Lengthen reprising of assets; shorten reprising of liabilities

b. Liability-sensitive institutions with negative maturity GAP; positive duration GAP; hurt by increasing interest rates

 (1) Sell financial futures--increasing rates would increase value of contract, offsetting negative impact of GAP

 (2) Buy put options on financial futures

 (3)Swap long-term, fixed-rate payments for variable-rate payments

 (4) Shorten reprising of assets; lengthen reprising of liabilities

**9.4 Cash Ratio and Reserve Requirement**

Cash Reserve Ratio (CRR) is the mandatory reserves to be maintained with National bank of Ethiopia. Every scheduled Bank is required to keep certain percentage of their demand and time liabilities, as cash balances with the National Bank of Ethiopia from time to time.

Liabilities of a bank may be in the form of demand or time deposits or borrowings or other miscellaneous items of liabilities.

***Demand Liabilities:***

Demand Liabilities of a bank are liabilities which are payable on demand. Some of the important items are: (i)current deposits (ii) demand liabilities portion of savings bank deposits (iii) margins held against letters of credit/guarantees (iv) balances in overdue fixed deposits (v) cash certificates and cumulative/recurring deposits (vi) outstanding Telegraphic Transfers (TTs), Mail Transfers (MTs), Demand Drafts (DDs) (vii) unclaimed deposits (viii) credit balances in the Cash Credit account and (ix) deposits held as security for advances which are payable on demand.

Money at Call and Short Notice from outside the Banking System should be shown against liability to others.

***Time Liabilities:***

Time Liabilities of a bank are those which are payable otherwise than on demand. These include:

(i) Fixed deposits

(ii) Cash certificates

(iii) Cumulative and recurring deposits, time liabilities portion of savings bank deposits, staff security deposits, margin held against letters of credit, if not payable on demand, deposits held as securities for advances which are not payable on demand and Gold deposits.

**Other Demand and Time Liabilities (ODTL)**

ODTL include interest accrued on deposits, bills payable, unpaid dividends, suspense account balances representing amounts due to other banks or public, net credit balances in branch adjustment account, any amounts due to the banking system which are not in the nature of deposits or borrowing. Such liabilities may arise due to items like (i) collection of bills on behalf of other banks, (ii) interest due to other banks and so on. If a bank cannot segregate the liabilities to the banking system, from the total of ODTL, the entire ODTL may be shown against item II (c) ‘Other Demand and Time Liabilities’ of the return in Form ‘A’ and average CRR maintained on it by all SCBs.

Cash collaterals received under collateralized derivative transactions should be included in the bank’s DTL/NDTL for the purpose of reserve requirements as these are in the nature of ‘outside liabilities’.

**Reserve requirements**

Required reserve is the minimum amount of reserves a bank is required to hold by government regulation. Denoted by:

Required reserves = ×total deposits

* By changing the reserve requirements, the Fed can directly alter the lending capacity of the banking system.

Excess reserve is bank reserves in excess of required reserves.

Money multiplier is the number of deposit (loan) dollars that the banking system can create from $1 of excess reserves;

Money multiplier = 1÷ Required reserve ratio (RRR)

A changing in the reserve requirement causes

* A change in excess reserves
* A change in the money multiplier

***Discount Rate***

Discount rate is the rate of interest charged by the Federal Reserve Banks for lending reserves to private banks.

Banks can ensure continual compliance with reserve requirements by maintaining large amounts of excess reserves. But this is unprofitable.

By keeping the minimum reserves the bank will profit, but it may fall below the Fed Requirements. To achieve profit maximization with minimum reserves, a back may brow using the following three strategies:

* Federal funds rate,
* Security sales, and
* Discounting.

***Federal Funds***

These are the inter-bank borrowing for overnight loans.

***Securities Sales***

It may sell the securities and deposit the proceeds at the regional Fed Bank.

***Discounting***

Borrow from the Fed itself.

Discounting is the Fed lending of reserves to private banks.

By raising or lowering the discount rate, the Fed changes the cost of money for banks and therewith the incentive to borrow reserves.

* High discount rate signals that the Fed wants a restriction on money supply.

***Open-Market Operation***

Open-market operations are the Federal Reserve purchases and sales of government bonds for the purpose of altering bank reserves.

The open-market levers are more flexible than changes in the reserve requirement, thus permitting minor adjustment to lending capacity

***Portfolio Decision***

Banks hold some of the idle funds in stocks and bonds because they promise some income in the form of interest, dividend, or capital appreciation.

***Hold Money or Bonds?***

Banks have to determine whether they want to buy bonds or to hold money in the reserves. The Fed influences the banks’ decision by changing the returns on bonds. (The higher the return on the bond, the more attractive is the bond in question).

***Open-Market Activity***

The Fed buys and sells bonds in order to alter the level of bank reserves. This is the purpose of the open-market activity.

***Buying Bonds***

It is used to increase the money supply in the economy and reduce interest rates thought the US economy. When the Fed buys bonds, we (banks and investors) get money from the bonds we are selling to the Fed. Once we get moneys from the Fed, the stock of cash in the economy increases.

***Selling***

It is used to decrease the money supply in the economy and increase interest rates throughout the US economy. When the Fed sells bonds, we purchase them with our money. Once the transaction is completed, we (banks and investors) have less cash on hand. Thus, the selling of bonds by the Fed reduces the money supply.

***Powerful Levers***

Since the bank loans are the primary source of new money, the Fed has effective control of the nation’s money supply by using:

* Reserve requirements
* Discount rate
* Open-market operations

Summary

There are altogether 4 banks in the public sector, comprising the National Bank of Ethiopia and 14 private commercial banks, in July 2013. The public sector banks account for about 60% of the total banking business in Ethiopia.

The structure of banking differs from country to country depending upon the socio, economic and political conditions. The branch banking system is a system in which every commercial bank has a network of branches operating throughout the country. Every bank is supposed to keep certain of its total deposits as cash reserves in order to gain and retain the public confidence at large. A unit banking system is a system in which the business of each bank is confined to a single office which has no branch at all.

There are three other types of banking system also, viz., the group, the chain and the correspondent banks.

Deposit Banking is that system of banking in which the commercial banks pool together the savings of the community and make them available for short-term credit productive undertakings.

Industrial Banking, also known as investment banking is that system of banking in which the banks play a significant role in the industrialization of the country by providing the longer term capital for establishment, expansion and reorganization of industries in the country.

The balance sheet of a commercial bank is a statement of its assets and liabilities. Assets are what others owe the bank, and what the bank owes others constitutes its liabilities. The business of a bank is reflected in its balance sheet and hence its financial position as well. The balance sheet is issued usually at the end of every financial year of the bank.

Cash Reserve Ratio (CRR) is the mandatory reserves to be maintained with National bank of Ethiopia. Every scheduled Bank is required to keep certain percentage of their demand and time liabilities, as cash balances with the National Bank of Ethiopia from time to time.

***Review Questions***

*1. Bank managers must balance a trade-off between \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_.*

 *2. The loan loss reserve is a “\_\_\_\_\_\_\_” account deducted from gross loans.*

 *3. For purposes of liquidity management, vault cash is an example of \_\_\_\_\_\_ reserves.*

 *4. If RSA < RSL the maturity GAP is \_\_\_\_\_\_\_\_\_ and net interest income will \_\_\_\_\_\_\_\_\_ if interest rates rise.*

 *5. Undivided profits are part of \_\_\_\_\_\_\_\_\_ capital.*

 *6. Banks purchase financial futures to hedge against effects of a \_\_\_\_\_ in interest rates.*

 *7. \_\_\_\_\_\_ management theory assumes funds can be readily obtained in the money market by offering more than the market rate.*

 *8. Matched-funding is \_\_\_\_\_ -hedging. Buying futures to hedge a whole balance sheet is \_\_\_\_\_ -hedging.*

 *9. A positive maturity GAP implies a \_\_\_\_\_\_\_\_ duration GAP.*

*10. Total capital must be at least 8% of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ assets.*

*MULTIPLE-CHOICE QUESTIONS:*

*1. Total reserves minus bank deposits with the Fed equals*

*A) Vault cash.*

*B) Excess reserves.*

*C) Required reserves.*

*D) Currency in circulation.*

*Answer: A*

*2. Reserves are equal to the sum of*

*A) Required reserves and excess reserves.*

*B) Required reserves and vault cash reserves.*

*C) Excess reserves and vault cash reserves.*

*D) Vault cash reserves and total reserves.*

*Answer: A*

*3. Total reserves are the sum of \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_.*

*A) Excess reserves; borrowed reserves*

*B) Required reserves; currency in circulation*

*C) Vault cash; excess reserves*

*D) Excess reserves; required reserves*

*Answer: D*

*4. Excess reserves are equal to*

*A) Total reserves minus discount loans.*

*B) Vault cash plus deposits with Federal Reserve banks minus required reserves.*

*C) Vault cash minus required reserves.*

*D) Deposits with the Fed minus vault cash plus required reserves.*

*Answer: B*

*5. Total Reserves minus vault cash equals*

*A) Bank deposits with the Fed.*

*B) Excess reserves.*

*C) Required reserves.*

*D) Currency in circulation.*

*Answer: A*

*6. The amount of deposits that banks must hold in reserve is*

*A) Excess reserves.*

*B) Required reserves.*

*C) Total reserves.*

*D) Vault cash.*

*Answer: B*

*7. The percentage of deposits that banks must hold in reserve is the*

*A) Excess reserve ratio.*

*B) Required reserve ratio.*

*C) Total reserve ratio.*

*D) Currency ratio.*

*Answer: B*

*8. Suppose that from a new checkable deposit, First National Bank holds two million dollars in vault cash, eight million dollars on deposit with the Federal Reserve, and one million dollars in required reserves. Given this information, we can say First National Bank has \_\_\_\_\_\_\_\_ million dollars in excess reserves.*

*A) Three*

*B) Nine*

*C) Ten*

*D) eleven*

*Answer: B*

*9. Which of the following statements are true?*

*A) A bank's assets are its sources of funds.*

*B) A bank's liabilities are its uses of funds.*

*C) A bank's balance sheet shows that total assets equal total liabilities plus equity capital.*

*D) A bank's balance sheet indicates whether or not the bank is profitable.*

*Answer: C*

*10. Which of the following statements is false?*

*A) A bank's assets are its uses of funds.*

*B) A bank issues liabilities to acquire funds.*

*C) The bank's assets provide the bank with income.*

*D) Bank capital is recorded as an asset on the bank balance sheet.*

*Answer: D*

*11. Which of the following are reported as liabilities on a bank's balance sheet?*

*A) Reserves*

*B) Checkable deposits*

*C) Loans*

*D) Deposits with other banks*

*Answer: B*

*12. When a new depositor opens a checking account at the Commercial Bank, the bank's assets \_\_\_\_\_\_\_\_ and its liabilities \_\_\_\_\_\_\_\_.*

*A) Increase; increase*

*B) Increase; decrease*

*C) Decrease; increase*

*D) Decrease; decrease*

*Answer: A*

*13. Holding all else constant, when a bank receives the funds for a deposited check,*

*A) Cash items in the process of collection fall by the amount of the check.*

*B) Bank assets increase by the amount of the check.*

*C) Bank liabilities decrease by the amount of the check.*

*D) Bank reserves increase by the amount of required reserves.*

*Answer: A*

*14. Which of the following are primary concerns of the bank manager?*

*A) Maintaining sufficient reserves to minimize the cost to the bank of deposit outflows*

*B) Extending loans to borrowers who will pay low interest rates, but who are poor credit risks*

*C) Acquiring funds at a relatively high cost, so that profitable lending opportunities can be realized*

*D) Maintaining high levels of capital and thus maximizing the returns to the owners.*

*Answer: A*

*15. If a bank has excess reserves greater than the amount of a deposit outflow, the outflow will result in equal reductions in*

*A) Deposits and reserves.*

*B) Deposits and loans.*

*C) Capital and reserves.*

*D) Capital and loans.*

*Answer: A*

*16. In general, banks would prefer to acquire funds quickly by \_\_\_\_\_\_\_\_ rather than \_\_\_\_\_\_\_\_.*

*A) Reducing loans; selling securities*

*B) Reducing loans; borrowing from the Fed*

*C) Borrowing from the Fed; reducing loans*

*D) "Calling in" loans; selling securities*

*Answer: C*

*17. Banks face the problem of \_\_\_\_\_\_\_\_ in loan markets because bad credit risks are the ones most likely to seek bank loans.*

*A) Adverse selection*

*B) Moral hazard*

*C) Moral suasion*

*D) Intentional fraud*

*Answer: A*

*18. If borrowers with the most risky investment projects seek bank loans in higher proportion to those borrowers with the safest investment projects, banks are said to face the problem of*

*A) Adverse credit risk.*

*B) Adverse selection.*

*C) Moral hazard.*

*D) Lemon lenders.*

*Answer: B*

*19. Because borrowers, once they have a loan, are more likely to invest in high-risk investment projects, banks face the*

*A) Adverse selection problem.*

*B) Lemon problem.*

*C) Adverse credit risk problem.*

*D) Moral hazard problem.*

*Answer: D*

*20. In order to reduce the \_\_\_\_\_\_\_\_ problem in loan markets, bankers collect information from prospective borrowers to screen out the bad credit risks from the good ones.*

*A) Moral hazard*

*B) Adverse selection*

*C) Moral suasion*

*D) Adverse lending*

*Answer: B*

*21. To reduce moral hazard problems, banks include restrictive covenants in loan contracts. In order for these restrictive covenants to be effective, banks must also*

*A) Monitor and enforce them.*

*B) Be willing to rewrite the contract if the borrower cannot comply with the restrictions.*

*C) Trust the borrower to do the right thing.*

*D) Be prepared to extend the deadline when the borrower needs more time to comply.*

*Answer: A*

*22. Risk that is related to the uncertainty about interest rate movements is called*

*A) Default risk.*

*B) Interest-rate risk.*

*C) The problem of moral hazard.*

*D) Security risk.*

*Answer: B*

*23. All else the same, if a bank's liabilities are more sensitive to interest rate fluctuations than are its assets, then \_\_\_\_\_\_\_\_ in interest rates will \_\_\_\_\_\_\_\_ bank profits.*

 *a. An increase; increase*

 *b. An increase; reduce*

 *c. A decline; reduce*

 *d. A decline; not affect*

 *Answer: B*

*24. Bank capital standards are expressed in terms of percentages of;*

*a. assets.*

*b. deposits.*

*c. risk-weighted assets.*

*d. industry averages.*

*25. The major source of bank revenue is from*

*a. loans.*

*b. investments.*

*c. service charges.*

*d. “off-balance-sheet” activities.*

 *26. The major noninterest expense for banks is*

*a. occupancy expense.*

*b. income taxes.*

*c. salaries and wages.*

*d. provision for loan losses.*

*27. A bank profit ratio measuring the performance of total assets is called*

*a. margin.*

*b. ROAE.*

*c. capital/asset ratio.*

*d. ROAA.*

*28. Balancing profitability and safety for banks is more difficult than for other businesses because;*

*a. banks have low capital/asset ratios.*

*b. banks make very risky loans.*

*c. most bank liabilities are short term.*

*d. both a and c.*

*29. A bank can fail either of two ways:*

*a. Too much GAP or too little GAP.*

*b. Insufficient leverage or insufficient market share.*

*c. Insufficient risk or insufficient return.*

*d. Illiquidity or insolvency.*

*30. The major sources of bank liquidity are \_\_\_\_\_ and \_\_\_\_\_; the major uses are \_\_\_\_\_ and \_\_\_\_\_.*

*a. Loans and deposits; borrowed funds and selling assets*

*b. Borrowed funds and loans; deposits and selling assets*

*c. Selling assets and borrowed funds; loans and deposit withdrawal*

*d. Borrowed funds and loans; securities and deposit withdrawal*

 *31. The important characteristics of secondary reserves are*

*a. Low cost and immediate availability.*

*b. Excellent liquidity while earning some interest.*

*c. Nonearning asset with immediate liquidity.*

*d. High income with low risk.*

 *32. Liability management assumes*

*a. Asset management has been utilized to the fullest extent possible.*

*b. The bank is adequately capitalized.*

*c. The bank can finance in money markets any time.*

*d. Primary and secondary reserves are sufficient for any liquidity needs.*

*33. Maturity GAP is defined as*

*a. Rate sensitive assets divided by rate sensitive liabilities.*

*b. Fixed rate assets minus rate sensitive liabilities.*

*c. Rate sensitive liabilities plus rate sensitive assets.*

 *d. Rate sensitive assets minus rate sensitive liabilities.*

*SOLUTIONS TO COMPLETION QUESTIONS:*

 *1. Safety; profitability*

 *2. Contra*

 *3. Primary*

 *4. Negative; decrease*

 *5. “Tier 1” or “core”*

 *6. Decrease*

 *7. Liability*

 *8. Micro; macro*

 *9. Negative*

*10. risk-weighted*

*SOLUTIONS TO TRUE-FALSE QUESTIONS:*

 *1. F A large GAP in either direction subjects the bank to significant interest rate risk.*

 *2. F Primary reserves are a financial classification of assets for liquidity management purposes; required reserves are a regulatory classification. There is significant overlap between them in terms of the assets qualifying, but they are not the same thing.*

 *3. T By definition, excess reserves are among the most liquid bank assets.*

 *4. F Bank capital is an ultimate “cushion” but not an immediate cash reserve. Bank capital is a set of credit balances on the right side of the balance sheet, not an asset.*

 *5. T “Tier 2” capital will not ultimately absorb losses for the going concern.*

 *6. T A bank has to supply liquidity on both sides of the balance sheet.*

 *7. T A drop in interest rates would increase the value of both assets and liabilities, but if the duration of assets were greater than that of liabilities, the value of assets would increase more than that of liabilities and the value of the bank’s equity would increase.*

 *8. F Primary reserves (cash and deposits in banks) are almost always nonearning assets.*

 *9. F Most banks still rely on asset management; liability management is more feasible for large banks with access to the money markets.*

*10. F As interest rates rise, more RSLs reprise upward than RSAs. Net interest income falls.*

*SOLUTIONS TO MULTIPLE-CHOICE QUESTIONS:*

 *1. c Capital standards are in terms of percentages of risk-weighted assets.*

 *2. a Loans are the major source of revenue.*

 *3. c Salaries and wages are the major operating expense of banks.*

 *4. d The return on average assets (ROAA) tells how well management uses assets.*

 *5. d Lower equity and deposit variability mean that banks must be liquid and safe but still provide income.*

 *6. d A bank can fail from either illiquidity or insolvency.*

 *7. c Liquidity may be observed from a sources/uses perspective.*

 *8. b Secondary reserves are liquid, earning assets such as Treasury bills.*

 *9. c Liability management assumes the market will always lend to the bank if the bank pays the market price or more.*

*10. d GAP = RSA - RSL*

***Self check table for students assessment***

|  |  |  |  |
| --- | --- | --- | --- |
| ***No.*** | ***Do students grasp objectives/competencies*** | ***Yes***  | ***No.***  |
| *1* | *Explain the banking enterprise* |  |  |
| *2* | *Describe the balance sheet of a bank* |  |  |
| *3* | *Describe the bank management and profitability* |  |  |
| *4* | *Describe the cash ratio and reserve requirement* |  |  |