BASUDEV GODABARI DEGREE COLLEGE, KESAIBAHAL

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CONTENT

against the deposits). These warehouse receipts became a medium of exchange and a means of payment.

4. The Money Lender. The next stage in the development of banking arises when the goldsmith becomes a money-lender. This development was based on the goldsmiths' discovery that it was not necessary to hold hundred per cent of the coins deposited with them. The goldsmiths soon realised that, on average, daily withdrawals were equal to daily deposits and only a contingency reserve was required for the periods when withdrawals exceeded deposits. After keeping the contingency reserve, the goldsmiths loaned out the remaining deposits on interest. In this way, the system of fractional reserve banking was born. Thus, goldsmith became a banker; he started performing the two major functions of a bank, *i.e.*, receiving deposits and advancing loans.

2. MEANING AND FUNCTIONS OF BANK

Meaning of Bank

A bank is an institution which deals with money and credit. It accepts deposits from the public, makes the funds available to those who need them, and helps in the remittance of money from one place to another. In fact, a modern bank performs such a variety of functions that it is difficult to give a precise and general definition of it. It is because of this reason that different economists give different definitions of the bank.

According to **Crowther**, a bank *"collects money from those who have it to spare or who are saving it out of their incomes, and it lends this money to those who require it."* In the words of **Kinley**, *"A bank is an establishment which makes to individuals such advances of money as may be required and safely made, and to which individuals entrust money when not required by them for use."* According to **John Paget**, *"No body can be a banker who does not (i) take deposit accounts, (ii) take current accounts, (iii) issue and pay cheques, and (iv) collects cheques-crossed and uncrossed-for its customers."*

Prof. Sayers defines the terms bank and banking distinctly. He defines a bank as *"an institution whose debts (bank deposits) are widely accepted in settlement of other people's debts to each other."* Again, according to **Syaers**, *"Ordinary banking business consists cash for bank deposits and bank deposists for cash ; transferring bank deposits from one person or corporation to another ; giving bank deposits in exchange for bills of exchange, government bonds, the secured promises of businessmen to repay and so forth"*. According to the Indian Companies Act, 1949, banking means *"the accepting for the purpose of Indian Companies lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft or otherwise."*

In short, the term bank in the modern times refers to an institution having the following features:

(*i*) **It deals with money ;** it accepts deposits and advances loans.

(*ii*) **It also deals with credit ;** it has the ability to create credit. *i.e.*, the ability to expand its liabilities as a multiple of its reserves.

(*iii*) **It is commercial institution ;** it aims at earning profit.

(*iv*) **It is a unique financial institution** that creates demand deposits which serve as a medium of exchange **and, as a result, the** banks manage the payment system of the country.

Functions of Commercial Banks or Modern Banks

In the modern world, banks perform such a variety of functions that it is not possible to make an all-inclusive list of their functions and services.

However, some basic functions performed by the banks are discussed below :

1. Accepting Deposits. The first important function of a bank is to accept deposits from those who can save but cannot profitably utilise this saving themselves. People consider it more rational to deposit their savings in a bank because by doing so they, on the one hand, earn interest, and on the other, avoid the danger of theft.

To attract savings from all sorts of individuals, the banks maintain different types of accounts:

(*i*) **Fixed Deposit Account.** Money in these accounts is deposited for fixed period of time (say one, two, or five years) and cannot be withdrawn before the expiry of that period. The rate of interest on this account is higher than that on other types of deposits. The longer the period, the higher will be the rate of interest. Fixed deposits are also called time deposits or time liabilities.

(*i*) **Current Deposit Account.** These accounts are generally maintained by the traders and businessmen who have to make a number of payments every day. Money from these accounts can be withdrawn in as many times and in as much amount as desired by the depositors. Normally, no interest is paid on these accounts. Rather, the depositors have to pay certain incidental charges to the bank for the services rendered by it. Current deposits are also called demand deposits or demand liabilities.

(*ii*) **Saving Deposit Account.** The aim of these accounts is to encourage and mobilise small savings of the public. Certain restrictions are imposed on the depositors regarding the number of withdrawals and the amount to be with drawn in a given period. Cheque facility is provided to the depositors. Rate of interest paid on these deposits is low as compared to that on fixed deposits.

(*iv*) **Recurring Deposit Account.** The purpose of these accounts is to encourage regular savings by the public, particularly by the fixed income group. Generally money in these accounts is deposited in monthly instalments for a fixed period and is repaid to the depositors along with interest on maturity. The rate of interest on these deposits is nearly the same as on fixed deposits.

(*v*) **Home Safe Account.** Home safe account is another scheme aiming at promoting saving habits among the people. Under this scheme a safe is supplied to the depositor to keep it at home and to put his small savings in it. Periodically, the safe is taken to the bank where the amount of safe is credited to his account.

2. Advancing of loans. The second important function of a bank is advancing of loans to the public. After keeping certain cash reserves, the banks lend their deposits to the needy borrowers. Before advancing loans, the banks satisfy themselves about the creditworthiness of the borrowers.

Various types of loans granted by the banks are discussed below:

(*i*) **Money at Call.** Such loans are very short period loans and can be called back by the bank at a very short notice of say one day to fourteen days. These loans are generally made to other banks or financial institutions.

(*ii*) **Cash Credit.** It is a type of loan which is given to the borrower against his current assets, such as shares, stocks, bonds, etc. Such loans are not based on personal security. The bank opens the account in the name of the borrowers and allows him to withdraw borrowed money from time to time upto a certain limit as determined by the value of his current assets. Interest is charged only on the amount actually withdrawn from the account.

(*iii*) **Overdraft.** Sometimes, the bank provides overdraft facilities to its customers though which they are allowed to withdraw more than their deposits. Interest is charged from the customers on the overdrawn amount.

(*iv*) **Discounting of Bills of Exchange.** This is another popular type of lending by the modern banks. Through this method, a holder of a bill of exchange can get it discounted by the bank. In a bill of exchange the debtor accepts the bill drawn upon him by the creditor (*i.e*, holder of the bill) and agrees to pay the amount mentioned on maturity. After making some marginal deductions (in the form of commission), the bank pays the value of the bill to the holder. When the bill of exchange matures, the bank gets its payment from the party which had accepted the bill. Thus, such a loan is self-liquidating.

(*v*) **Term Loans.** The banks have also started advancing medium-term and long-term loans. The maturity period for such loans is more than one year. The amount sanctioned is either paid or credited to the account of the borrower. The interest is charged on the entire amount of the loan and the loan is repaid either on maturity or in instalments.

3. Credit Creation. A unique function of the bank is to create credit. In fact, credit creation is the natural outcome of the process of advancing loan as adopted by the banks. When a bank advances a loan to its customer, it does not lend cash but opens an account in the borrower's name and credits the amount of loan to this account. Thus, whenever a bank grants a loan, it creates an equal amount

of bank deposit. Creation of such deposits is called credit creation which results in a net increase in the money stock of the economy. Banks have the ability to create credit many times more than their deposits and this ability of multiple credit creation depends upon the cash-reserve ratio of the banks.

4. Promoting Cheque System. Banks also render a very useful medium of exchange in the form of cheques. Through a cheque, the depositor directs the bankers to make payment to the payee. Cheque is the most developed credit instrument in the money market. In the modern business transactions, cheques have become much more convenient method of settling debts than the use of cash.

5. Agency Functions. Banks also perform certain agency functions for and on behalf of their customers :

(*i*) **Remittance of Funds.** Banks help their customers in transferring funds from one place to another through cheques, drafts, etc.

(*ii*) **Collection and Payment of Credit Instruments.** Banks collect and pay various credit instruments like cheques, bills of exchange, promissory notes, etc.

(*iii*) **Execution of Standing Orders.** Banks execute the standing instructions of their customers for making various periodic payments. They pay subscriptions, rents, insurance premia, etc. on behalf of their customers.

(*iv*) **Purchasing and Sale of Securities.** Banks undertake purchase and sale of various securities like shares, stocks, bonds, debentures etc. on behalf of their customers. Banks neither give any advice to their customers regarding these investments nor levy any charge on them for their service, but simply perform the function of a broker.

(*v*) **Collection of Dividends on Shares.** Banks collect dividends, interest on shares and debentures of their customers.

(*vi*) **Income Tax Consultancy.** Banks may also employ income-tax experts to prepare income-tax returns for their customers and to help them to get refund of income-tax.

(*vii*) **Acting as Trustee and Executor.** Banks preserve the wills of their customers and execute them after their death.

(*viii*) **Acting as Representative and Correspondent.** Sometimes the banks act as representatives and correspondents of their customers. They get passports, traveller's tickets, book vehicles, plots for their customers and receive letters on their behalf.

6. General Utility Function. In addition to agency services, the modern banks provide many general utility services as given below:

(*i*) **Locker Facility.** Banks provide locker facility to their customers. The customers can keep their valuables and important documents in these lockers for safe custody.

(*ii*) **Traveller's Cheques.** Banks issue traveller's cheques to help their customers to travel without the fear of theft or loss of money. With this facility, the customers need not take the risk of carrying cash with them during their travels.

(*iii*) **Letter of Credit.** Letters of credit are issued by the banks to their customers certifying their creditworthiness. Letters of credit are very useful in foreign trade.

(*iv*) **Collection of Statistics.** Banks collect statistics giving important information relating to industry, trade and commerce, money and banking. They also publish journals and bulletins containing research articles on economic and financial matters.

(*v*) **Underwriting Securities.** Banks underwrite the securities issued by the government, public or private bodies. Because of its full faith in banks, the public will not hesitate in buying securities carrying the signatures of a bank.

(*vi*) **Gift Cheques.** Some banks issue cheques of various denominations (say of ₹ 11, 21, 31, 51.101, etc.) to be used on auspicious occasions.

(*vii*) **Acting as Referee.** Banks may be referred for seeking information regarding the financial position, business reputation and respectability of their customers.

(*viii*) **Foreign Exchange Business.** Banks also deal in the business of foreign currencies. Again, they may finance foreign trade by discounting foreign bills of exchange.

3. ROLE OF COMMERCIAL BANKS IN A DEVELOPING ECONOMY

A well-developed banking system is a necessary pre-condition for economic development in a modern economy. Besides providing financial resources for the growth of industrialisation, banks can also influence the direction in which these resources are to be utilized. In the underdeveloped and developing countries, not only the banking facilities are limited to a few developed urban areas, but also the banking activities are limited mostly to trade and commerce, paying little attention to industry and agriculture. Structural as well as functional reforms in the banking system are needed to enable the banks perform developmental role in underdeveloped countries.

Banks and Economic Development

In a modern economy, banks are to be considered not merely as dealers in money but also the leaders in development. They are not only the store houses of the country's wealth but also are the reservoirs of resources necessary for economic development. Banks play an important role in the development of a country. It is the growth of commercial banking in the 18th and 19th centuries that facilitated the occurrence of industrial revolution in Europe. Similarly, the economic progress in the present day developing economies largely depends upon the growth of sound banking system in these economies.

Commercial banks can contribute to a country's economic development in the following way:

1. **Capital Formation.** Capital formation is the most important determinant of economic development and banks promote capital formation. Capital formation has three well-defined stages : (*a*) generation of saving, (*b*) mobilisation of saving, and (*c*) canalisation of saving in productive uses. Banks play a crucial role in all the three stages of capital formation : (*a*) They stimulate savings by providing a number of incentives to the savers, such as, interest on deposits, free and cheap remittance of funds, safe custody of valuables, etc. (*b*) By expanding their branches in different areas and giving various incentives, they succeed in mobilizing the savings generated in the economy. They not only mobilise resources from those who have excess of them, but also make the resources so mobilized available to those who have the opportunities of productive investment.

2. **Encouragement to Entrepreneurial Innovations.** In underdeveloped countries, entre- preneurs generally hesitate to invest in new ventures and undertake innovations largely due to lack of funds. Facilities of bank loans enable the entrepreneurs to step up their investment and innovational activities, adopt new methods of production and increase productive capacity of the economy.

3. **Monetisation of Economy.** Monetisation of the economy is essential for accelerating trade and economic activity. Banks, which are creators and distributors of money, allow money to play an active role in the economy. They help the process of monetisation in two ways : (*a*) They monetise debts. In other words, they buy debts (*i.e.*, securities which are not acceptable as money) and, in exchange, create demand deposits (which are acceptable as money). (*b*) By spreading their branches in the rural and backward areas, the banks convert the non-monetised sectors of the economy into monetised sectors.

4. **Influencing Economic Activity.** Banks can directly influence economic activity, and hence, the pace of economic development through its influence on (*a*) the rate of interest, and (*b*) the availability of credit.

(*i*) **Variations in Interest Rates.** A reduction in the interest rates makes the investment more profitable and stimulates economic activity. An increase in the interest rate, on the other hand, discourages investment and economic activity. Thus, to overcome a deflationary situation, banks can follow cheap money policy with low interest rates and to control inflation they can adopt dear money policy with high interest rates.

(*ii*) **Availability of Credit** Bankers can also influence economic activity by the availability of credit. Credit creation is an important function of banks and bank credit forms the major portion of money supply. Thus, through their credit creation activity the banks increase the supply of purchasing power and hence the aggregate demand. This, in turn, increases investment, production and trade in the economy.

5. **Implementation of Monetary Policy.** Economic development needs an appropriate monetary policy. But, a well-developed banking system is a necessary pre-condition for the effective implementation

of the monetary policy. Control and regulation of credit by the monetary authority is not possible without the active co-operation of the baking system in the country.

6. Promotion of Trade and Industry. Economic progress in the industrially advanced countries in the last two hundred years or so is mainly due to expansion in trade and industrialisation which could not have been made possible without the development of banking system. The use of bank cheque, the bank draft and the bill of exchange has revolutionized the internal and international trade, which, in turn, has encouraged specialisation and accelerated the pace of industrialisation.

7. Encouragement to Right Type of Industries. By granting loans (particularly medium-term and long-term), the banks can provide financial resources to the right type of industries to secure necessary material, machines and other inputs. In a planned economy, it is necessary that the banks should formulate their loan policies in accordance with the broad objectives and strategy of industrialisation as adopted in the plan. This will promote right type of industrialisation in the economy.

8. Regional Development. Banks can also play an important role in achieving balanced development in different regions of the economy. They can transfer surplus capital from the developed regions to the less-developed regions where it is scarce and most needed. This reallocation of funds between regions will promote economic development in underdeveloped areas of the economy.

9. Development of Agriculture and Other Neglected Sectors. Underdeveloped economies are primarily agricultural economies and majority of the population in these economies live in rural areas. Therefore, economic development in these economies requires the development of agriculture and small-scale industries in rural areas. So far, banks, in underdeveloped countries have been paying more attention to trade and commerce and have almost neglected agriculture and industry. Thus, necessary structural and functional reforms in the banking system of the underdeveloped countries should be made in order to encourage the banks to play developmental role in these economies. The banks must diversify their activities not only to extend credit to trade, but also to provide medium-term and long-term loans to industry and agriculture.

Sound Banking System for Underdeveloped Countries

A sound and efficient banking system which undertakes the responsibility of promoting economic growth in underdeveloped economies must possess the following features :

(*i*) The system of branch banking is most suitable for the underdeveloped countries. More and more branches should be opened in rural and backward areas to encourage saving as well as banking habits in these areas.

(*ii*) The system of unit banking may be developed in the limited area, particularly in bigger cities to meet the local financial requirements of trade and industries. This will, on the one hand, reduce pressure on big banks and, on the other hand, check concentration of financial power in the hands of a few banks.

(*iii*) The banking system in the less-developed countries must aim at encouraging capital formation by increasing the rates of savings and investment in these economies.

(*iv*) The banking system in the underdeveloped countries should provide easy and cheap remittance facilities to enable the movement of fund from one place to another so as to promote trade and industry.

(*v*) The loan policy of banks in the underdeveloped countries should be rationalised in such a way that loans for productive purposes should be encouraged and loans for conspicuous consumption and for speculative activities should be discouraged.

(*vi*) The loan policy in underdeveloped countries should also not be restricted to short-term loans alone. The banks should also provide medium-term and long-term loans to developmental activities in these countries.

(*vii*) The banks should meet the different and changing needs of the underdeveloped countries. Credit facilities should be extended to the priority sectors, like agriculture and small scale industries.

(*viii*) Efficient functioning of the banks will inspire public confidence in the banking system and popularise banking activities. This requires trained and efficient banking staff.

short, comprehensive structural and functional changes in the banking system of the veloped countries are needed. Only after these changes, the banks can be expected to play a ole in promoting economic development in these countries.

TYPES OF BANKS

Banks can be classified into various types on the basis of their functions, ownership, domicile, The following are the various types of banks :

1. **Commercial Banks.** The banks which perform all kinds of banking business and generally rade and commerce are called commercial banks. Since their deposits are for a short period, anks normally advance short-term loans to the businessmen and traders and avoid medium- and long-term lending . However, recently, the commercial banks have also extended their areas operation to medium-term and long-term finance. Majority of the commercial banks are in the public ector. But, there are certain private sector banks operating as joint stock companies. Hence, the ommercial banks are also called joint stock banks.

2. **Industrial Banks.** Industrial banks, also known as investment banks, mainly meet the medium- erm and long-term financial needs of the industries. Such long-term needs cannot be met by the ommercial banks which generally deal with short-term lending. The main functions of the industrial anks are : (*a*) They accept long-term deposits. (*b*) They grant long-term loans to the industrialists to nable them to purchase land, construct factory building, purchase heavy machinery. etc. (*c*) They help elling or even underwrite the debentures and shares of industrial firms. (*d*) They can also provide formation regarding the general economic position of the economy. In India, industrial banks, like Industrial Development Bank of India, Industrial Finance Corporation of India, State Finance Corporations, are playing significant role in the industrial development of the country.

3. **Agricultural Banks.** Agricultural credit needs are different from those of industry and trade. Industrial and commercial banks normally do not deal with agricultural finance. The agriculturists require (*a*) short-term credit to buy seeds, fertilizers and other inputs, and (*b*) long-term credit to purchase land, to make permanent improvements on land, to purchase agricultural machinery and equipment, etc. In India, agricultural finance is generally provided by co-operative institutions. Agricultural co-operatives provide short-term loans and Land Development Banks provide the long erm credit to the agriculturists.

4. **Exchange Banks.** Exchange banks deal in foreign exchange and specialise in financing foreign rade. They facilitate international payments through the sale and purchase of bills of exchange and thus play an important role in promoting foreign trade.

5. **Saving Banks.** The main purpose of saving banks is to promote saving habits among he general ublic and mobilise their small savings. In India, postal saving banks do this job. They open accounts nd issue postal cash certificates.

6. **Central Bank.** Central bank is the apex institution which controls, regulates and supervises the onetary and credit system of the country. Important functions of the central bank are : (*a*) It has the onopoly of note issue ; (*b*) It acts as the banker, agent and financial adviser to the state ; (*c*) It is the ustodian of member banks' reserves ; (*d*) It is the custodian of nation's reserves of international urrency; (*e*) It serves as the lender of the last resort ; (*f*) It functions as the bank of central clearance, ettlement and transfer ; and (*g*) It acts as the controller of credit. Besides these functions, India's central ank, *i.e.*, the Reserve Bank of India, also performs many developmental functions to promote economic evelopment in the country.

7. **Classification on the Basis of Ownership.** On the basis of ownership, banks can be classified nto three categories : (*a*) *Public Sector Banks* : These are owned and controlled by the government. In ndia, the nationalized banks and the regional rural banks come under these categories. (*b*) *Private Sector anks* : These banks are owned by the private individuals or corporations and not by the government nd co-operative societies. (*c*) *Cooperative Banks* : Cooperative banks are operated on the cooperative lines. n India, cooperative credit institutions are organised under the cooperative societies law and play an mportant role in meeting financial needs in the rural areas.

Advantages of Unit Banking

Unit banking system has the following advantages :

1. Local Development. Unit banking is localized banking. The unit bank has the specialised knowledge of the local problems and serves the requirements of the local people in a better manner than branch banking. The funds of the locality are utilised for the local development and are not transferred to other areas

2. Promotes Regional Balance. Under unit banking system, there is no transfer of resources from rural and backward areas to the big industrial commercial centres. This tends to reduce regional inbalance.

3. Easy Management. The management and supervision of a unit bank is much easier and more effective than that under branch banking system. There are less chances of fraud and irregularities in the financial management of the unit banks.

4. Initiative in Banking Business. Unit banks have full knowledge of and greater involvement in the local problems. They are in a position to take initiative to tackle these problems through financial help.

5. No Monopolistic Tendencies. Unit banks are generally of small size. Thus, there is no possibility of generating monopolistic tendencies under unit banking system.

6. No Inefficient Branches. Under unit banking system, weak and inefficient branches are automatically eliminated. No protection is provided to such banks.

7. No diseconomies of Large Scale Operations. Unit banking is free from the diseconomies and problems of large-scale operations which are generally experienced by the branch banks.

Disadvantages of Unit Banking

The following are the disadvantages of unit banking system :

1. No. Distribution of Risks. Under unit banking, the bank operations are highly localised. Therefore, there is little possibility of distribution and diversification of risks in various areas and industries.

2. Inability to Face Crisis. Limited resoures of the unit banks also restrict their ability to face financial crisis. These banks are not in a position to stand a sudden rush of withdrawals.

3. No Banking Development in Backward Areas. Unit banks, because of their limits resources, cannot afford to open uneconomic banking business is smaller towns and rural area. As such, these area remain unbanked.

4. Lack of Specialisation. Unit banks, because of their small size, are not able to introduce, and get advantages of, division of labour and specialisation. Such banks cannot afford to employ highly trained and specialised staff.

5. Costly Remittance of Funds. A unit bank has no branches at other place. As a result, it has to depend upon the correspondent banks for transfer of funds which is very expensive.

6. Disparity in Interest Rates. Since easy and cheap movement of does not exist under the unit banking system, interest rates vary considerably at different places.

7. Local Pressures. Since unit banks are highly localised in their business, local pressures and interferences generally disrupt their normal functioning.

8. Undesirable Competition. Unit banks are independently run by different managements. This results in undesirable competition among different unit banks.

Conclusion. Although both branch banking system and unit banking system have their relative merits and demerits, but the merits of the former outweigh those of the latter. There has grown a general tendency in favour of the branch banking system mainly because of large financial resources, economies of large operations and effective control by the central bank. Experience has shown that unit baking system in hampered by limited resources and does not work under economic depression. Today, the branch banking system is specially suitable for the underdeveloped countries. The entire banking system in India has developed on the lines of branch banking system.

Group Banking and Chain Banking

Group Banking. Group banking refers to the system of banking in which two or more banks are directly controlled by a corporation, an association or a business trust. The holding company may or

...not be a banking company. Although each bank maintains its separate entity, but its business is ...aged by the holding company. This type of banking was popular in the U.S.A. between 1925-29.

Group banking system combines some of the advantages of branch as well as unit banking ...em. The *main advantages* are :

(*a*) Each member bank retains its separate entity and maintains its board of directors. But, at the ...me time, grouped banks enjoy the benefits of centralized administration. (*b*) There is greater liquidity ...mobility of resources. In case of crisis, funds can be transferred from other banks. (*c*) There is ...nomy of advertisement expenditure. There is also a common purchasing agency which leads to ...nomy in purchases. (*d*) Services of experts can be made available to the member banks to manage ... business efficiently. (*e*) Common standardised accounting system improves the working of the ...ber banks. (*f*) Large-scale banking operations allow superior credit facilities.

...The group banking also suffers from certain *defects* of its own : (*a*) The control of member banks ...the group baking system is less direct and more flexible than that under branch banking. Thus, ...ective supervision is not possible. (*b*) Efficiency of the member banks is adversely affected by the ...nagement of the holding company which uses the banks as vehicles of manipulation and speculation. (*c*) The failure of one bank has its adverse effects on other member banks. (*d*) The common purchasing agencies often indulge in corrupt practices.

Chain banking. Chain Banking is another form of group banking. It refers to the system in which two or more banks are brought under common control by a device other than the holding company. The common management may be by a single person or a group of persons through stock ownership or otherwise. This type of banking system developed in the U.S.A. towards the middle of the 19th century and remained popular till the Great Depression of 1929. The advantages and disadvantages of chain banking system are more or less similar to those of grouup banking system.

6. BALANCE SHEET OF A BANK

The balance sheet of a bank is a statement of its liabilities and assets at a particular time. Liabilities refer to all debit items representing the obligations of the bank or others' claims on the bank. In other words, all those items because of which the bank is liable to pay to others form the liabilities of the bank. Assets, on the other hand, refer to all credit items representing the bank's claims on others and its ownership of wealth. In other words, all those items from which the bank hopes to get an income constitute assets of the bank. Thus, the balance sheet shows how a bank raises funds and how it invests them. It is customary that the liabilities are mentioned on the left side and the assets on the right side of the balance sheet. The totals on the two sides (*i.e.*, the total liabilities and the total assets) are always equal. Table 1 shows a format of a bank's balance sheet.

Table 1 : Balance Sheet of a bank

Liabilities	Assets
1. Share Capital	1. Cash
2. Reserve fund	(*a*) Cash in hand
3. Deposits :	(*b*) Cash with central bank
(a) Demand deposits	(*c*) Cash with other banks
(b) Time deposits	2. Money at call and short notice
(c) Saving deposits	3. Bills purchased or discounted
4. Borrowings from other banks	4. Investments
5. Acceptance and endorsements.	5. Loans and advances
6. Other liabilities	6. Acceptance and endosements
	7. Buildings and other fixed assets
Total	Total

Liabilities of the Bank

The liabilities side of the balance sheet is relatively simple system. It consists of the following items:

1. Share Capital. A joint stock bank initially raises its funds by issuing share capital. In other words, share capital is the contributions made by the shareholders. Share capital is in the form of (*a*) *authorised capital i.e.* the maximum amount of capital the bank is authorised to raise in the form of shares ; (*b*) *issued capital i.e.* the part of the authorised capital issued in the form of shares for public subscription ; (*c*) *subscribed capital i.e.* the part of the issued capital actually subscribed by the public; and (*d*) *paid-up capital i.e.* the part of the subscribed capital actually paid by the subscribers. It is the actually paid-up share capital which constitutes the liability of the bank.

2. Reserve Fund. Reserve fund is the amount accumulated over the years out of undistributed profits. Normally, all the profits of the bank are not distributed among the shareholders; some part is retained undistributed for meeting contingencies. This reserve fund actually belongs to the shareholders.

3. Deposits. Deposits from the public constitute the major portion of the banks working capital. Various types of deposits accepted by the bank are (*a*) *demand deposits i.e.* the deposits which can be withdrawn at any time and on which no interest is paid ; (*b*) *time deposits i.e.* the deposits which can be withdrawn after a fixed period of time and on which high rate of interest is paid ; and (c) *saving deposits i.e.* the deposits which can be withdrawn to the limited extent in a given period and on which some interest is paid. Deposits are the liabilities of a bank towards the depositors. But they are also assets of the bank because, after keeping a certain cash reserve, the bank invests the balance in securities or utilises it for advancing loans and thus earns income.

4. Borowings from Banks. Sometimes, the bank borrows loans from other banks on temporary basis to meet the increased demand for money. Central bank is the lender of the last resort and provides loan facilities to the banks in special circumstances. All these borrowings form the liability of the borrower bank.

5. Acceptances and Endorsements. The bank also creates liabilities by accepting or endorsing the bills of exchange on behalf of its customers. Through this facility, the bank assumes the liability to pay the amount of the bill on maturity.

6. Other Liabilities. Certain other miscellaneous liabilities are incurred by the bank. For example, by acting as an agent the bank makes collections on behalf of its customers and thus creates liability. Again, the profits earned by the bank represent the liability because they are payable to the shareholders.

Assets of the Bank

The asset side of the balance sheet is both complicated and interesting. It shows the manner in which the funds of the bank are utilised.

Given below are various assets of the bank arranged in an ascending order of profitability and descending order of liquidity :

1. Cash. Cash is the most liquid but non-earning asset and is considered as the first line of defence. Every bank keeps certain amount of cash in order to meet the cash requirements of its depositors. Cash of the bank includes three items : (*a*) cash (currency and coins) in hand *i.e.*, cash kept in the safe values of the bank ; (*b*) cash kept with central bank of the country ; and (*c*) cash kept with other banks.

2. Money at Call and Short Notice. Money at call and short notice refers to loans which are recoverable by the bank on demand or at a very short notice. These loans are for a maximum period of 15 days. Such loans are earning as well as highly liquid assets which can be converted into cash quickly and without loss. These assets are of two types : (*a*) call and short notice loans to the brokers in the stock market, dealers in the discount market and to other banks ; (*c*) short-term treasury bills, *i.e.* borrowing of the government for very short period.

3. Bills purchased or Discounted. The bank utilises its funds in trade bills and treasury bills which it discounts. The amount of the bills is collected by the bank on maturity. The bills discounted are short-term (normally of 90 days) self-liquidating assets. They are self-liquidating because, at the end of the commercial transaction, the money will be repaid. The commercial banks generally prefer these

bills because of the following reasons : (*a*) They are highly negotiable and can be easily bought and sold. (*b*) They are eligible for rediscounting with the central bank in case the bank needs cash before the maturity of the bills. (*c*) They bring to the banks good earning *in the form of interest. Thus, the bills are considered* the ideal bank assets because they satisfy both the objectives of liquidity and profitability.

4. Investments. Some funds are invested in profit-yielding assets, mainly the government securities. Government securities are relatively safe because there is certainty of repayment after maturity. Moreover, the banks can borrow from the central bank against these securities. The banks also invest in fixed interest yielding debentures or bonds of well-established industrial concerns. Such investments are highly shiftable and yield good income. But they also involve risk.

5. Loans and Advances. Loans and advances are the most profitable and the least liquid assets of the bank. Banks provide loans and advances to the businessmen either through overdraft or by discounting of bills of exchange. The difference between loans and advances is that the advances are for short period and loans are for relatively longer period. Loans and advances earn high rate of interest, carry greater risk and are generally non-shiftable. Thus, while and advances are mostly preferred by the banks because of their high yields, they are not popular from the consideration of liquidity and safety of the bank.

6. Acceptances and Endorsements. When a bank accepts or endorses exchange bills for its customers, the amount of the bill becomes customer's liability and the bank's asset.

7. Building and other Fixed Assets. Bank's assets also include the value of the movable and immovable properties of the bank, such as office buildings, furniture etc. These assets do not contribute to the income of the bank and constitute very small properties of the assets of the bank.

Importance of Balance Sheet of the Bank

The importance of the balance sheet of a bank is clearly brought out in the following points:

(*i*) It represents the complete functioning of the bank. It tells how the bank raises money and how it invests it. In the words of **Crowther,** ***"The whole business of a bank is in its balance sheet. The balance sheet also has the merit of demonstrating, at a glance, the ratios to which the bank is working."***

(*ii*) It throws light on the financial position (*i.e.*, liquidity and solvency position) of the bank because it contains all information about the liabilities and assets of the bank.

(*iii*) The progress of the bank over time can be determined by comparing the balance sheet of different periods.

(*iv*) A comparison of balance sheet of different banks gives comparative picture of financial position of a bank vis a vis that of others.

(*v*) It brings out an important fact that banks buy assets primarily by creating liabilities in the form of deposits. These deposits are simply debt claims against the assets of the banks.

(*vi*) It gives an estimate of the confidence of the public in the bank. Increasing saving or time deposits of the bank represent that the confidence of the people in the bank is also increasing.

(*vii*) It shows the loans and investment policy of the bank.

(*viii*) It provides information about the interest of various persons, such as shareholders, debtors, creditors, etc.

PORTFOLIO MANAGEMENT

Objectives of Portfolio Management

The bank has to solve the problem of portfolio management, *i.e.*, it has to manage its assets and liabilities in such a way that maximum profits are secured without losing liquidity and solvency. Portfolio management aims at striking an optimum balance between the conflicting goals of liquidity, solvency and profitability. According to **Ranlett,** ***"The object of commercial bank portfolio management is to achieve the pattern and contribution of assets and liabilities necessary to satisfy bank needs for liquidity, solvency and income. These needs are competitive because, for example, the assets that provide maximum liquidity generate little or no income."***

The three main objectives of portfolio management, *i.e.*, liquidity, solvency and profitability, are discussed below :

(A) Liquidity

Liquidity means the ability of the bank to give cash on demand. In the words of Sayers, "Liquidity is the word that the banker uses to describe the ability to satisfy demand for cash in exchange for deposits." The business of the bank primarily depends upon the confidence of the depositors on the bank and the depositors feel confident when they are sure that they can demand their money back at any time. Thus, the bank must keep adequate amount of liquid assets with them to meet the demand from the depositors. Liquid assets are assets either in the form of cash or in a form that can be easily turned into cash. The liquid assets of a bank are cash in hand; money at call or short notice, bills of exchange and treasury bills; etc. Thus, liquidity is necessary for maintaining public confidence. If a bank does not have sufficient liquidity, it loses public confidence and, in turn, destroys its own business.

Since it is most unlikely that the depositors will withdraw all the deposits at the same time, the bank need not keep all the deposits in liquid form. It is expected to keep only a portion of its total deposits in liquid form.

Factors Affecting Liquidity

The proportion of the total deposits to be kept in liquid or the amount of cash reserves to be maintained by the banks depends upon the following factors.

1. Requisite Cash Reserve. The banks are required to maintain a minimum cash reserve by banking law or under the instructions of the central bank. If the minimum reserve is high, the banks have to keep greater liquidity ; and if the minimum reserve is low, the banks will have lesser liquidity.

2. Banking Habits. Banking habits of the people greatly influence the liquidity requirements of the banks. If the people have developed banking habits, *i.e.*, they usually make or receive payments through cheques, then the use of cash in transactions is reduced and the banks need to keep smaller amounts of liquid cash.

3. Structure of Banking. A country's banking structure also determines the liquidity requirements of the banks. In a unit banking system, higher liquidity is required because of small scale operations of each independent bank. In a branch banking system the banks can function with less cash reserves because, in case of need, cash can be transferred from one branch to the other.

4. Nature of Money Market. Condition of the money market too determines the cash requirements of the banks. In a developed money market, the banks can function with lesser cash in hand because they can easily buy and sell short-term securities in the money market. But in a less developed or underdeveloped money market, banks have to keep greater liquidity because of less scope of buying and selling of securities in the money market.

5. Nature of Economy. Nature of the economy has great bearing upon the cash reserves of the banks. In a developed economy banks need less cash resources because most of the payments are made through cheque system. But, in an underdeveloped country, transactions are generally conducted through money and there is great need for liquidity.

6. Nature of Business Conditions. Liquidity needs of the bank are also influenced by the nature of business conditions. During inflation, business flourishes and a small proportion of cash is sufficient to support large deposits. But, during depression business is dull and the businessmen do not borrow because of general pessimism. Therefore, greater amount of cash is left with the banks.

7. Seasonal Requirements. The banks have to take into consideration the seasonal requirements of the customers. During busy season (*i.e.*, during festival season, or sowing and harvesting season), banks are required to keep large amount of cash to meet increased demand of the people.

8. Type of Depositors. The type of depositors is another determinant of the cash needs of the bank. If the deposits are mostly by individuals and are of personal nature, the bank can operate with less liquid cash because the demand behaviour of the depositors is fairly stable and the withdrawals are normally offset by the new deposits. On the other hand, if the majority of deposits are owned by business firms or corporations, the bank will have to maintain high liquidity because of the unpredictable and erratic demand behaviour of these bodies.

9. Clearing House Arrangements. Cash reserves of a bank also depend upon the availability of clearing house facility. If there is a clearing house, inter-bank claims can be easily settled and the bank need not keep large cash reserves. In the absence of clearing house arrangements, on the other hand, banks require higher liquidity as there is no possibility of inter-bank settlement of claims.

In short, banks should keep an optimum proportion of cash. Too much cash reserves reduce profitability, while too little of it endangers the security of the bank.

(B) Solvency

Solvency (or security or safety) of a bank depends upon the relationship between its liabilities and assets. It implies that assets are at least equal to liabilities. In the words of **Chandler**, ***"A bank is solvent when the value of its assets is at least great enough to cover all its liabilities except those to its owners; it is insolvent when the value of its assets is insufficient to cover all the nonowner claims against it"*** According to **Meyers**, ***"A bank is solvent if the amount of its assets exceeds the amount of its liabilities to all claimants."***

Solvency is different from liquidity. Liquidity refers to the ability of the bank to easily turn its assets into cash without loss to meet the demands of the depositors. Solvency means liabilities of the bank equal to or exceeding its assets. A bank may be solvent, but not liquid, if its assets, though equal to or exceed its liabilities, cannot be quickly exchanged for money to meet the demand of the depositors. Similarly, an insolvent bank may continue to operate without any liquidity problem, if its assets are at least equal to its liabilities but there is not much demand for payment from the depositors.

The problem of insolvency arises because of the fundamental reason that while the liabilities of the bank are fixed in terms of the monetary unit of the country, the assets of the bank are liable to change in value terms. A considerable fall in the realisable value of assets may lead to the insolvency of the bank. Although an insolvent bank may be able to function for some time if there is not a heavy rush for payment, but a situation of insolvency is undesirable for two reasons : (*a*) An insufficiency of assets to meet the liabilities endangers the creditors' claims. (*b*) In case the insolvency position of the bank becomes known to the public, it will lead to immediate demand on the bank for payment and this will cause losses to the depositors and other creditors. Thus, insolvency shatters the confidence of the public and threatens the very existence of the bank.

Factors Responsible for Insolvency. The factors which cause changes in the value of assets are the factors which are responsible for the insolvency situation. Such factors must be taken into consideration by the banks in portfolio management ensuring solvency.

These factors are explained below :

1. Misappropriation or Loss of Assets. Misapproporiation or loss of assets (particularly cash assets) may bring down the value of assets and endangers the solvency of the bank. Bank funds may be misappropriated by its dishonest or inefficient employees. Similarly, there can be loss of funds due to bank robberies.

2. Risk of Default. Risk of default or the failure of the borrower to repay the loan is another factor responsible for the reduction of the value of assets below that of liabilities leading to the insolvency of the bank.

The bank, however, can minimise the risk of default by keeping in mind the following considerations:

(i) It should advance loans to a large number of individuals or businesses, and not a few.

(ii) It should thoroughly inquire into the reputation and economic position of the borrower before granting loan.

(iii) It should carefully evaluate the security to be offered by the borrowers for getting loan.

(iv) As far as possible, short-term loans should be advanced.

(v) Normally, loans should be given to meet temporary requirements of credit.

(vi) Rate of interest should be sufficiently high to avoid wastage of loan money by the borrowers.

3. Changes in Rate of Interest. Long-term investments involve the risk of interest rate fluctuations relating to changes in the value of securities. There is an inverse relationship between the interest rate

and the market value of securities. If there are expectations of a rise in the rate of interest in the long run, there is a risk of prospective fall in the market value of the securities having longer maturity. Therefore, the bank will purchase very-short-term assets. If, on the other hand, the rate of interest is expected to fall, the bank will purchase longer- term assets to realise capital gains.

(C) Profitability

Bank is a business institution whose objective is to earn maximum profits or income. It must earn sufficient income to meet the cost of running the bank to make payments of interest on deposits and to yield a reasonable return for the owners. For this purpose, the bank should invest its funds in such a way that it earns maximum income with minimum variable cost. Income of the bank depends upon (*a*) the receipts from an asset during the period it stays with the bank ; (*b*) the variable cost in owning the asset ; and (*c*) the cost of acquiring the asset.

To conclude, all the three objectives of portfolio management are not equally important. Liquidity and solvency are the primary and basic objectives. Profitability is secondary and less important objective. The secondary objective should not be achieved at the cost of the primary objectives. In other words, liquidity and solvency of the bank must not be sacrificed in the endeavour to maximise profits.

Conflicting Nature of Liquidity, Solvency and Profitability

There is inherent conflict between the three objectives of portfolio management, i.e., liquidity, solvency and profitability. High income-yielding investments are less liquid or solvent. Similarly, highly liquid and solvent investments are generally low income-yielding.

Conflicting nature of these objectives is discussed below :

1. Liquidity Problem or Liquidity-Profitability Dilemma. There is an inverse relationship between liquidity and profitability. A bank can earn income by foregoing its liquidity. Similarly, liquidity of the bank can be maintained at the cost of profitability. Various assets of the bank can be distinguished on the basis of their liquidity and profitability ranking.

Table 2 shows liquidity- profitability ranking of different assets :

Table 2

	Bank Asset	Liquidity Ranking	Profitability Ranking
1.	Cash	Highest	Lowest
2.	Money at call and short notice	Very high	Very low
3.	Bills	High	Low
4.	Investments	Intermediate	Intermediate
5.	Loans	Lowest	Highest

Cash, for example, is perfectly liquid but earns no income. Money at call and short notice, and bills have very high and high liquidity respectively, but they earn very low and low profits respectively. Investments are intermediate on the liquidity- profitability ranking. Finally, loans have the highest profitability, but the lowest liquidity ranking.

Liquidity problem is the basic and inherent problem of the banking business. Banks are business firms: (*a*) they hire inputs ; (*b*) they produce services for sale ; and (*c*) they aim at maximising profits. As financial intermediaries, the banks accept demand and time deposits (inputs). With these deposits, they create short-term highly liquid liabilities (products). They then use these liabilities to buy longer-term, less liquid but more profitable assets, such as bonds, mortgages, etc. In this way, the banks face a potential liquidity problem because their liabilities are more liquid than their assets.

The liquidity problem of a bank can alternatively be described as liquidity-profitability dilemma. If the bank wants to remain in business totally safe, it must always be ready to make payments to the customers as and when demanded. This requires high degree of liquidity which means keeping all the funds of the bank in cash reserves. But cash reserves bring no earnings for the banks. If, on the other extreme, the bank desires to earn maximum profits, it must employ its funds in various long-term assets. The long-term assets, no doubt, have earning potential, but they lack liquidity, *i.e.*, they cannot be easily

liquidated (sold) to obtain cash. Thus, the bank faces a dilemma ; if it attempts to increase liquidity, its earnings decrease, and if it attempts to increase earnings its liquidity decreases. In other words, liquidity and profitability are conflicting objectives and the bank should aim at striking an optimum balance between liquidity and profitability while distributing its assets.

2. Profitability and Solvency. Conflict also exists between the objectives of profitability and solvency. Assets that yield higher income are generally riskier. Thus, if the bank wants to utilise its funds in the optimum assets which give higher rate of return, these assets certainly carry greater risk which will endanger the solvency of the bank. Securities of longer maturity provide higher returns, but, at the same time, they run the risk of greater fluctuation in the interest rates. The bank, however, reconciles the opposite considerations of profitability and solvency by diversifying the employment of funds and selecting that assets - mix which maximises the rate of profitability and minimises the risk associated with that rate. In other words, the bank strikes a balance between profitability and risk by selecting assets with higher rate of return and minimising the risk consistent with the higher rate of return.

Theories of Asset or Portfolio Management

There are three theories of how a bank should manage the assets side of its balance sheet or how a bank should solve the liquidity problem :

1. **The Commercial Loan Theory or the Bill Doctrine.** This is the traditional commercial banking theory. According to this theory, the banks should grant only short term self liquidating productive loans. A loan is considered self-liquidating if it is secured by goods in the process of production or by finished goods in transit to their final destination for resale. Thus, banks should limit themselves to finance only the production and movement of goods. Such loans are risk-free loans because either they will be repaid when the production process is complete or they will be repaid when the transaction of goods is complete.

The commercial loan theory has two advantages : (*a*) The chief advantage of the theory is that it resolves the liquidity- earnings problem. Self-liquidating short-term loans ensure both liquidity and profits of the bank. (*b*) Another advantage of the theory is that on the basis of this theory, the money supply in the country is thought to increase or decrease automatically with the needs of trade. When business activity increases, self-liquidating bank loans increase, thus increasing the money supply, and vice versa.

The commercial loan theory has certain drawbacks : (*a*) No loan is truly self-liquidating. For example, in case of loan for movement of final goods, the goods may not find a market and the problem of repayment may arise. (*b*) Such a policy of self- liquidating loans leads to automatic destabilising changes in the money supply. The loans, and hence the money supply, will automatically increase during inflation and contract during recession. (*c*) The theory is unsuitable for developing countries where the commercial banks are expected to actively assist in the process of economic growth.

2. **Shiftability Theory.** According to the shiftability theory, banks should purchase highly liquid assets or those assets which can be easily sold or shifted to other banks for cash without any loss. Liquidity of banks depends not on the maturity of loans, but on the shiftability of assets. As long as the assets of the banks can be sold and shifted for necessary liquidity, the banks can extend the period of lending. Clearly the application of the shiftability theory enables the commercial banks to adopt medium-term lending.

The shiftability theory gives a new and wider concept of liquidity. Liquidity means shiftability of cash without loss and a bank is liquid if it has sufficient quantity of assets which can be shifted to other banks for cash as and when required. Liquidity in the last analysis means the shiftability to the central bank. When, in a period of crisis, a bank finds it difficult to shift its assets to other banks, then the bank's liquidity depends upon its ability to shift its assets to the lender of the last resort, *i.e.*, the central bank. Thus, whereas, according to the commercial loan theory, the bankers look to their loan portfolio for liquidity, according to the shiftability theory, they look to their security portfolio for liquidity. The commercial loan theory lays stress on the maturity of loans, whereas the shiftability theory amphasises the shiftability of securities.

The problem with the shiftability theory is that the total liquidity of the entire banking system cannot be simultaneously increased because all banks cannot become sellers simultaneously ; when

one bank sells its assets, the other bank buys. In times of depression or crises, when all banks are short of cash and they attempt to sell their assets to the central bank for liquidity, the liquidity of the entire banking system is increased by the central bank. Thus, the central bank is required to increase the total liquidity of the economy at the time of crisis.

3. Anticipated Income Theory. During 1950s a new theory of bank management was developed in America. According to this theory, the banks, while granting loans, take into consideration neither the maturity nor the shiftability of the loan, but the repaying capacity of the borrower which largely depends upon his anticipated future income. This theory treats long-term loans as potential sources of liquidity. Commercial banks will have sufficient liquidity even by advancing long-term loans, if the borrowers repay the loans in a series of instalments that provide the banks predictable and continuous inflows of funds. These inflows of funds ensure the liquidity of banks. Clearly, the application of the anticipated income theory has enabled the commercial banks to adopt long-term lending.

In essence, the anticipated income theory is similar to the commercial loan theory. Both the theories regard loan portfolios of the banks as the source of liquidity. The only difference is that the anticipated income theory provides a broader base of securities from which liquidity can be obtained. This broader base includes long-term loans which regularly add to the bank's liquidity. The concept of short-team lending of the commercial loan theory has been replaced by the concept of term lending (mainly long-term lending) in the anticipated income theory. The short-term loans are liquidated by the sale of the borrower, while the term loans are liquidated by the anticipated income of the borrower. The new theory strikes a better balance between the objectives of liquidity and profitability ; long-term loans provide greater liquidity as well as greater profitability.

Management of Bank Liabilities

Not only do the commercial banks manage the asset side of their balance sheet aggressively but there is an increasing opportunity to manage their liabilities. During the 1960s, there emerged a new theory of liquidity which argues that it is unnecessary to observe traditional standards in regard to self-liquidating loans and liquidity reserves. The rationale behind this new theory is that reserve money can be borrowed (or bought) in the money market if the commerical bank experiences a reserve deficiency. According to the liability management view, an individual commercial bank may acquire funds from several different sources by creating additional liabilities against itself.

The important sources from where a commercial bank can raise funds for meeting their liquidity needs are as follows : (*a*) share capital, (*b*) reserve fund, (*c*) deposits from public, (*d*) borrowings from other banks, non-bank financial institutions (like IDBI, NABARD, LIC, UTI, GLC, ICICI, etc.) and the central bank (RBI), (*e*) accepting or endorsing the bills of exchange on behalf of its customers. (For details, see liabilities side of the balance sheet of a bank in this chapter.)

Participation Certificates : The Participation Certificates (PCs) are a new form of credit instrument whereby banks can raise funds from other banks and other RBI-approved financial institutions (such as LIC, UTI, GCI, ICICI). PC is a deed of transfer through which a bank sells or transfers to a third party a part or whole of a loan made by it to its client. The PC scheme, which was started in July 1970, is supervised by RBI. It was made permanent in July 1977 and all scheduled commercial banks were permitted to sell PCs.

The PCs are an important device for (*a*) making maximum use of funds within the commercial banking system for making loans and advances, particularly to large borrowers, and (*b*) attracting short-term funds of non-bank financial institutions into the market for bank credit.

Certificates of Deposits : The scheme of Certificates of Deposits (CDs) was started in India in June 1989 to enable commercial banks to raise additional funds from the market through the issue of market paper (i.e. CDs) of various maturities, specifically of 3 months maturity at the short end and one year at the long end.

Money Market Mutual Fund : In 1991, the scheduled commerical banks in India were permitted to set up Money Market Mutual Fund (MMMF) which would provide additional short-term avenue to investors.

Euro-Dollar Market : At the international level, commercial banks can also acquire funds through the purchase of Euro-dollars. Euro-dollar market is an international short term money market which facilitates banks' borrowing and lending of U.S. dollars. This market is located in Europe, mainly in London and deals in U.S. dollars.

A Sound Bank

While dealing with the portfolio management, an ideal or sound bank possesses the following features :

(*i*) A sound bank is that which is able to judiciously reconcile the conflicting objectives of liquidity, solvency and profitability, and strick a sound and optimum balance between them while managing its portfolios.

(*ii*) A sound bank wisely distributes the assets in such a way that both the requirements of liquidity and profitability are satisfied to the maximum possible extent.

(*iii*) A sound bank diversifies its assets portfolios in such a way that a higher and stable level of earnings is achieved and the risk consistent with that higher return is minimised.

(*iv*) A sound bank keeps in mind that the consideration of liquidity and solvency are of primary importance, while that of profitability, is of secondary importance ; liquidity and solvency of the bank cannot be sacrificed to earn more profits.

8. CREDIT CREATION

Meaning

A bank differs from other financial institutions because it can create credit. Banks have the ability to expand their demand deposits as a multiple of their cash reserves. This is because of the fact that demand deposits of the banks serve as the principal medium of exchange, and, in this way, the banks manage the payments system of the country. In short, multiple expansion of deposits is called credit creation and the ability of the banks to expand the deposits makes them unique and distinguish them from other non-bank financial institutions. Demand deposits are an important constituent of money supply and the expansion of demand deposits means expansion of money supply.

The whole structure of banking is based on credit. Credit means getting the purchasing power (i.e., money) now by a promise to pay at some time in future. In the words of **Kent,** "***Credit may be defined as the right to receive payment or the obligation to make payment on demand or at some future time on account of an immediate transfer of goods.***"[1] In a sense, the words credit, debt and loan are synonymous; credit or loan is the liability of the debtor and the asset of the bank. The word credit is derived from a Latin word 'credo', which means 'I believe'. The creditor believes that the debtor will return the loan and so decides to give the loan. Advancing credit or loan essentially depends upon the (*a*) confidence, (*b*) character, (*c*) capacity, (*d*) capital, and (*e*) collateral of the debtor.

Bank credit means bank loans and advances. A bank keeps a certain proportion of its deposits as minimum reserve for meeting the demand of the depositors and lends out the remaining excess reserve to earn income. The bank loan is not paid directly to the borrower but is only credited in his account. Every bank loan creates an equivalent deposit in the bank. Thus, credit creation means multiple expansion of bank deposits. The word 'creation' refers to the ability of the bank to expand deposits as a multiple of its reserves.

In nut-shell, credit creation refers to the unique power of the banks to multiply loans and advances, and hence deposits. With a little cash in hand, the banks can create additional purchasing power to a considerable degree. It is because of the multiple credit creating power that the commercial banks have been aptly called the 'factories of credit' or 'manufactures of money'. In the words of Newlyn. "***Credit creation refers to the power of commercial banks to expand secondary deposits either through the process of making loans or through investment in securities.***" According to Halm, "***The creation of derivative deposits is identical with what is commonly called the creation of credit.***"

1. R.P. Kent : Money and Banking, 1966, p. 106.

asic Concepts

In order to understand the process of credit creation, the proper knowledge of some basic oncepts is necessary :

1. **Bank as a Business Institution.** Bank is a business institution which aims at maximising profits rough loans and advances from the deposits.

2. **Bank Deposits.** Bank deposits form the basis for credit creation. Prof. Halm has classified eposits into two types : (*a*) primary deposits; and (*b*) secondary or derivative deposits.

(*i*) **Primary Deposits.** When a bank accepts cash from the customer and opens a deposit account in his name it is called primary or passive account. The bank remains passive as regards this account. The creation of primary deposit does not mean creation of credit (or money). These deposits simply convert currency money into deposit money. However, the primary deposits form the basis for the creation of credit (or money). It is out of these deposits that the bank grants loans and advances.

(*ii*) **Secondary or Derivative Deposits.** When a bank grants loans and advances, it, instead of giving cash to the borrower, opens a deposit account in his name. This is secondary or derivative deposit. Every loan creates a deposit. It is called derivative deposit because it has been derived from the loan transaction of the bank. Since the bank plays an active role in creating derivative deposits, they are also called active deposits. Creation of derivative deposits means creation of credit (or money). With the creation of these deposits, money supply in the form of bank deposits is increased.

3. **Cash-Reserve Ratio.** The banks need not hold all their deposits in reserve. From their general xperience, they know that all depositors will not withdraw all deposits at the same time. Therefore, hey keep a fraction of the total deposits for meeting the cash demand of the depositors and lend out he remaining excess deposits. The percentage of total deposits which the banks are required to hold n cash reserves for meeting the depositors' demand for cash is called cash-reserve ratio.

4. **Excess Reserves.** The reserves that a bank holds above the required cash reserves are called xcess reserves. Excess reserves are equal to total reserves (or total deposits) minus required reserves. It is the excess reserves out of which the loans are granted and thereby the credit is created.

5. **Credit Multiplier.** The banks can multiply a given amount of cash to many times of credit. In the process of multiple credit creation, the total amount of derivative deposits created by the banks will be a multiple of the initial excess reserves. The ratio between the total amount of derivative deposits and the initial amount of excess reserves is known as the credit multiplier. If the initial excess reserves of ₹ 1000 produce total derivative deposits of ₹ 5000, then the credit multiplier is 5.

$$\text{Credit multiplier} = \frac{\text{Total derivative deposits}}{\text{Initial excess reserves}} = \frac{5000}{1000} = 5$$

Credit multiplier is the reciprocal of cash-reserve ratio, *i.e.*, credit multiplier = 1/cash-reserve ratio.

Credit Creation by Single Bank

The process of credit creation can be analysed in two ways: (*a*) credit creation by a single bank; and (*b*) credit creation by the banking system as a whole. In the single bank system, only one bank operates and all the cash deposits and cheques are to be made with this bank alone. The process of credit creation by a single bank can be illustrated with the help of a hypotherical example :

Suppose the customary cash-reserve ratio maintained by the bank is 20%. Now,if person A deposits ₹ 1000 with the bank, the bank does not keep the entire cash in reserve but only the 20% of it to meet the day-to-day cash demand. Thus, after keeping ₹ 200 (i.e., 20% of ₹ 1000), the bank lends the remaining ₹ 800 to person B by opening a credit account in his name. Again, keeping 20% of ₹ 800 (*i.e.*, ₹ 160), the bank advances the remaining ₹ 640 (*i.e.*, ₹ 800–160) to person C. Similarly, keeping 20% of ₹ 640 (i.e., ₹ 128), the bank advances ₹ 512 (*i.e.*, Rs 640-128 = 512) to person D, and so on. This process will continue till the initial primary deposit of ₹ 1000 and the initial excess reserves of ₹ 800 lead to additional (derivative) deposits of ₹ 800 + 640 + 512 +... = ₹ 4000. By adding up all the deposits (*i.e.*, primary plus derivative), we get total deposits of ₹ 5000. Here credit multiplier (which is the reciprocal of the cash-reserve ratio, *i.e.* 20%) is 5 and the credit creation (or the total derivative deposits, i.e., ₹ 4000) is five times the initial excess reserves (i.e., ₹ 800). The process of credit creation in a single bank system is also explained in Table 3.

Table 3 : Credit Creation by a Single Bank

Rounds	Primary Deposits	Cash Reserves r = 20%	Credit Creation or Derivative Deposits (ΔD)
1. Person (A)	₹ 1000 (Initial primary deposits)	₹ 200	₹ 800 (Initial excess reserves ΔR)
2. Person (B)	800	160	640
3. Person (C)	640	128	512
4. Person (D)	512	102	410
—	—	—	—
—	—	—	—
—	—	—	—
Total	5000	1000	4000

Table 3 shows the following points : (*a*) On the basis of the cash-reserve ratio of 20% and with the initial primary deposit of ₹ 1000, the bank creates derivative deposits (*i.e.*, credit) of ₹ 4000 and the total demand deposits will be ₹ 5000 (*i.e.*, primary plus derivative deposits). (*b*) The credit expansion (*i.e.*, ₹ 4000) is five times the initial excess reserves (*i.e.*, ₹ 800). (*c*) The credit multiplier will be 5, *i.e.*,

or $$= \frac{1}{\text{Cash} - \text{reserve ratio (r)}} = \frac{1}{.2} = 5$$

Credit Multiplier

Credit creation depends upon the ratio of cash reserves to deposits. The credit or the deposit multiplier is : k = 1/r ; where k is the credit multiplier and r is the cash-reserve ratio. Thus, credit multiplier is the reciprocal of cash-reserve ratio. If cash-reserve ratio is 20% then

$$K = \frac{1}{r} = \frac{1}{.2} = 5$$

The higher the cash-reserve ratio, the lower will be the credit multiplier ; the lower the cash reserve ratio, the higher will be the credit multiplier.

The additional aggregate deposits (ΔD) or the creation of derivative demand deposits or the potential credit creation will be the initial excess reserve (ΔR) multiplied by the credit multiplier (k) or the inverse of cash-reserve ratio (r), *i.e.*,

$$\Delta D = k\Delta R = \frac{\Delta R}{r}$$

where, ΔD = Derivative deposits ;
ΔR = Initial excess reserves which are measured as initial primary deposits minus reserves requirements.
r = Cash-reserve ratio ; and
k = Credit multiplier

If, for example, the commercial banks get new deposits of ₹ 10 crore and the cash-reserve ratio is 20%, the additional aggregate deposits will be

$$\Delta D = \frac{\Delta R}{r} = ₹\ 10 \text{ crore} \times 5 = ₹\ 50 \text{ crore}$$

Algebraically, the formula for additional aggregate deposits *i.e.* ΔD = ΔR / r, can be derived in the following manner :

The process of credit creation can be expressed as the sum of geometry series *i.e.*,

$$\Delta D = \Delta R + (1 - r)\Delta R + (1 - r)^2 \Delta R + \ldots + (1 - r)^{n-1} \Delta R \quad \ldots(1)$$

Multiplying Equation (1) by $1 - r$

$$(1 - r)\Delta D = (1 - r)\Delta R + (1 - r)^2 \Delta R + (1 - r)^3 \Delta R + \ldots + (1 - r)^n \Delta R \quad \ldots(2)$$

Subtracting Equation (1) from (2)

$$\Delta D - \Delta Dr - \Delta D = [(1 - r)\Delta R + (1 - r)^2 \Delta R + (1 - r)^3 \Delta R + \ldots + (1 - r)^n \Delta R] - [\Delta R + (1 - r)\Delta R + (1 - r)^2 \Delta R + \ldots + (1 - r)^{n-1} \Delta R] \quad \ldots(3)$$

or $$-\Delta Dr = -\Delta R + (1 - r)^n \Delta R \quad \ldots(4)$$

when $n \to \infty$, the value of $(1 - r)^n \Delta R$ tends to zero. Thus,

$$\Delta D = \frac{\Delta R}{r} \quad \ldots(5)$$

Assumptions. The credit multiplier is based on the following assumptions :

(*i*) The cash-reserve ratio remains constant through all the stages of credit creation process.

(*ii*) The banks adjust their assets in such a manner as to maintain a fixed relationship between their deposit liabilities and cash reserves.

(*iii*) There is no leakage in the credit creation process. This means (*a*) the excess reserves are turned into derivatives through granting loans (*b*) the derivative deposits, in turn, become primary deposits with the banks.

(*iv*) There is a well-developed banking system in the country and the people have banking habits.

(*v*) The central bank does not adopt any credit control policy.

(*vi*) There exist normal business conditions in the country.

The reciprocal of the required cash-reserve ratio gives the maximum credit (or deposit) multiplier. But, in the actual world, the maximum multiplier is never achieved. Empirical estimates show that the real world money multiplier is only about one-third of the maximum money multiplier. This is partly because the banks actually hold some excess reserves and partly because the borrowers from the banks do not keep the entire amount of loan money in the banks, thus leading to currency drain.

Multiple Credit Creation by Banking System

In the real world, there are many banks in existence comprising multiple banking system. Whereas a single bank cannot lend beyond the amount of excess reserves, the banking system as a whole can do what a single bank cannot do. The banking system can grant loans many times the excess reserves of cash created for it. When an individual bank creates derivative deposits, it loses cash to other banks ; the loss of deposit of one bank is the gain of deposit by some other bank. This transfer of cash within the banking system creates, in turn, primary deposits and increases the possibility for a further creation of derivative deposits by the banks receiving cash. This process of the banking system to increase credit many times more than the initial excess reserves is called multiple credit creation.

The process of multiple credit creation can be explained with the help of an example. Suppose, with the initial primary deposit of ₹ 1000 and the cash-reserve ratio of 20%, bank A has initial excess reserves of ₹ 800 (*i.e.*, ₹ 1000 minus 20% of ₹ 1000 = ₹ 800). The bank creates derivative deposits equal to its initial excess reserves of ₹ 800 by grating loans to the borrowers. The borrowers make payments of ₹ 800 by cheques to other people who are the customers of bank B. The cash-reserve ratio being 20%, the excess reserves of bank B are ₹ 640 (*i.e.*, ₹ 800 minus 20% or ₹. 800 = Rs 640) which it converts into derivative deposits by giving loans to borrowers. Further, the borrowers from bank B make payment of ₹ 640 by cheques to some people who are the customers of Bank C. This creates the primary deposits of ₹ 640 in bank C, which, in turn, leads to the creation of excess reserves and derivative deposits of ₹ 512 (*i.e.*, ₹ 640 minus 20% of ₹ 640 = ₹ 512) in bank C.

This process will continue until the initial primary deposits of ₹ 1000 with bank A lead to the creation of total deposits (primary plus derivative) of ₹ 5000 and the initial excess reserve of ₹ 800 in bank A leads to the multiple expansion of total derivative deposits of ₹ 4000 in the entire banking

system. Thus, credit creation or the creation of the derivative deposits (ΔD) by the banking system will be ₹ 800 + 640 + 512 + ... ₹ 4000, i.e., 5 times of the initial excess reserves (ΔR) of ₹ 800.

Table 4 illustrates the process of credit creation by the banking system. It makes clear the following points. (*a*) Initial Primary deposits of ₹ 1000 in bank A leads to the expansion of total deposits of ₹ 5000. (*b*) Initial excess reserves of ₹ 800 create multiple derivative deposits of ₹ 4000. (*c*) The credit creation (*i.e.*, ₹ 4000) is five times the initial excess reserves (*i.e.*, ₹ 800). (*d*) The credit multiplier.

$$\frac{\text{Total derivative deposits } (\Delta D)}{\text{Initial excess reserves } (\Delta R)} = \frac{4000}{800} = 5$$

or $$\frac{1}{\text{Cash - reserve ratio } (r)} = \frac{1}{\frac{2}{10}} = 5$$

Table 4 : Multiple Credit Creation by Banking System

Banks	Primary Deposits	Cash Reserves	Credit Creation r = 20% or Derivative Deposits (ΔD)
A	₹ 1000 (Initial primary deposits)	₹ 200	₹ 800 (Initial excess reserves ΔR)
B	800	160	640
C	640	128	512
D	512	102	410
—	—	—	—
—	—	—	—
—	—	—	—
Total	5000	1000	4000

Destruction of Credit

Banks create credit by granting loans (*i.e.*, by creating derivative deposits) to the public. Similarly, the banks can destroy credit by reducing loans. The extent of destruction of credit depends upon cash-reserve ratio. Higher the cash-reserve ratio, greater will be the destruction of credit : lower the cash-reserve ratio, smaller will be the credit destruction. For example, assuming the cash-reserve ratio to be 20%, an initial reduction of ₹ 1000 in bank A will lead to a reduction of deposits of ₹ 800 in bank B, of ₹ 640 in bank C and so on. This process of credit contraction will continue till the total deposits in the banking system are reduced by ₹ 5000. Thus, the process of credit contration is exactly the same as the process of credit creation, but works in the opposite direction.

Limitations of Credit Creation

Theoretically, the banking system can create unlimited amount of credit through expansion of deposits. But in reality, the powers of banks to create multiple credit or deposits are subject to a number of limitations as explained below :

1. Amount of Cash. The extent of credit creation primarily depends upon the amount of cash possessed by the banks. Larger the amount of cash with the banking system, greater will be the credit creation, and *vice versa*. In the words of **Crowther**, *"The bankers' cash is the level with which the whole gigantic system is manipulated."* Thus, the power to create credit is limited by the bank's cash.

2. Cash-Reserve Ratio. The size of credit multiplier is inversely related to the cash-reserve ratio. The higher the cash-reserve ratio, the smaller will be the volume of credit creation and vice versa.

3. Leakages. The actual credit creation by the banking system may be considerably smaller than the potential credit creation due to certain leakages.

There are at least two such leakages in the credit creation process :

(*i*) **Excess Reserves.** The banks may not be willing to utilise their surplus funds for granting loans and may decide to maintain excess reserves. Such a situation arises (*a*) when there is fear of significant rise in future interest rates or (*b*) when the economy is heading towards a recession. The greater the excess reserves, the smaller the credit multiplier.

(*ii*) **Currency Drains.** The credit creation multiplier mechanism assumes that the amounts of loans granted by the banks return to them by way of new deposits. But the public may not keep the whole amount of loans in the banks and may withdraw some cash to hold it with themselves. This cash withdrawal or currency drain reduces the power of the banks to create credit.

4. Availability of Borrowers. Banks create credit by means of loans and advances. Therefore the extent of credit creation depends on the availability of borrowers. If there are no borrowers, there will be no credit creation.

5. Availability of Securities. Bank loans are granted against securities. In the words of **Crowther**, *"the bank does not create money out of thin air ; it transmutes other forms of wealth into money."* Thus, the power of the bank to turn other assets into money (*i.e.* to create credit) is restricted by the availability of good securities.

6. Credit Policy of Other Banks. All banks may not adopt the same credit policy. If some banks decide not to utilise their full capacity for credit creation and keep large cash reserves, the credit creation in the country will be limited to that extent.

7. Banking Habits. Development of banking system and the banking habits of the people also influence the extent of credit creation. If people prefer to make transactions through cash and not by cheques, the banks will be left with a smaller cash and there will be lesser credit creation. Banking habits, in turn, depend upon the development of banking system. In the developed economies due to the large expansion of banking facilities, the banking habits are more conductive to credit creation than in developing economies.

8. Business Conditions. Credit creation is further limited by the nature of business conditions. During depression, when due to low profit expectations businessmen do not come forward to borrow from banks, credit creation will be very small. On the other hand, during the period of business prosperity, the profit expectations are high, the businessmen approach the banks for loans and there will be greater credit creation. Hence credit creation will be smaller during depression and larger during business prosperity.

9. Monetary Policy. The extent of credit creation largely depends upon the monetary policy of the central bank of the country. The central bank has the power to influence the money supply in the country. It can use various methods of credit control to influence the banks to expand and contract credit.

Leaf-Cannon Criticism

Dr. Walter Leaf and Prof. Edwin Cannon raised a serious objection against the theory of credit creation. According to them, it is wrong to say that banks can create credit or are the manufacturers of credit. They are of the opinion that the initiative to create credit lies with the depositor and not with the bank. Banks create credit only because the depositors do not withdraw their deposits. The banks cannot grant loans more than the cash deposited by the customers.

Dr. Cannon finds no difference between a bank and cloak room. Suppose 100 members visit the club every night. Each member brings one umbrella which he deposits at the counter of the cloak room. The man at the counter knows by experience that only 10 members require unbrellas for an hour. He can therefore keep 10 umbrellas with him and rent out the remaining 90 umbrellas for the duration of the night and thus can earn some money. In such a case, can it be said that the counter-man has created 90 umbrellas ? The answer is : no. Similarly when the bank lends a part of its deposits and earns interest on it on the basis of its experience that all the depositors do no withdraw their money at one time, it does not imply that the bank has created money ; it has only lend out the deposit money of depositors. In the words of Cannon, *"The most abandoned cloak room attendent cannot lend out more umbrellas than have been entrusted to him and the most reckless banker cannot lend out more money than he has of his own plus he has to other people's"*[1].

1. Edwin Cannon : *Economist's Protest* p. 250.

Crowther's Answer. Crowther, however, rejects the Leaf-Cannon criticism of the theory of credit creation on both theoretical and practical grounds :

(*i*) Theoretically, Leaf-Cannon argument may be valid from the point of view of an individual banker, but it loses its strength when the banking system as a whole is taken into consideration. A single bank may not be able to create derivative deposits (or loans) more than its excess reserves because the borrowers will withdraw their loan money for making payments. But the banking system as a whole can create derivative deposits as a multiple of the original excess reserves. The loan money withdrawn from one bank will be deposited in some other bank and thus increase the cash reserves of that bank. This leads to multiple credit creation.

(*ii*) Practically, on the basis of empirical evidence of the U.K., Crowther points out that in reality the total deposits of the banks are many times more than their cash reserves.

Thus, **Crowther** concludes : *"To any body who analyses the matter, either theoretically or practically, beyond the first stage there cannot be any doubt that the banks 'create' their deposits. The only practical limit is set by the amount of cash available."*[1]

NEW TRENDS IN COMMERCIAL BANKING

Drastic changes have been experienced in both theory and practice of commercial banking the world over specially in the post-war period. Major changes are discussed below :

1. New Developments in Banking Theory. Traditional commercial loan theory has now been completely discarded and has given place to the modern shiftability and anticipated income theories. All the three theories attempt to resolve the liquidity-earning problem of the bank, *i.e.*, how a bank can achieve the two conflicting objectives of liquidity as well as profitability simultaneously. According to commercial loan theory, the banks can ensure sufficient liquidity by granting only short-term self-liquidating loans secured by goods in the process of production or goods in transit. The shiftability theory requirs the blanks to solve their liquidity problem by purchasing highly liquid assets which can be easily shifted to other banks in times of need for liquidity. According to the recent anticipated income theory, the banks can solve their liquidity problem even by advancing long-term loans if the borrowers repay the loans in series of continuous instalments. The application of shiftability theory and the anticipated income theory has enabled the commercial banks to adopt medium-term and long-term lending business along with providing sufficient liquidity.

2. Term Lending. In the post-war period, the liquidity of banks increased enormously. In order to improve their earnings, many banks decided to extend the term of their loans. The term loans which were virtually non-existent until 1930s now constitute more than one-third of all commercial bank loans in the U.S.A. and the U.K. Term loans are loans with a longer maturity than one year. Term loans not only increase earnings of the banks, but also improve their liquidity because such loans are almost always repaid on an instalment basis. The term loans are also beneficial to the borrowers. They are used to purchase machinery and equipment for the industries where the expected income flow from the investment will not be sufficient to repay a short-term loan. They are also used to supplement working capital in industries where the production is long. Other advantages of term-loans to the borrowers are : (*a*) negotiations can be conducted privately with a lender interested in promoting a sound long-run relationship; (*b*) maturities and conditions can be altered to fit changes in borrowing needs and other situations; (*c*) costs are often lower than those of alternative sources of such funds; and (*d*) funds are borrowed only when needed and can usually be repaid in advance without penalty.

In fact, since the World War II, banks have greatly diversified their banking business. They have been granting medium term and long-term loans to industry and trade ; they have been subscribing to the equity capital of financial institutions ; they have been holding in their portfolio new issues of debentures, preference shares etc.

3. Hire Purchase Finance. Hire purchase finance, which refers to the credit facilities for the purchase of durable goods on instalment basis, is another post-war development in commercial banking. The dealers selling on hire-purchase get advances from the banks by hypotheticating their

1. G. Crowther : *An Outline of Money*, 9140 , p. 50.

2. Changing Technology. Computer technology is undergoing very rapid changes all over the world. The rate of technology obsolence is very high and new products and processes are being announced regularly. A computer system purchased today may become obsolete in the next two years. This makes purchasing computer equipments a difficult management decision. This problem to some extent can be solved by adopting the policy of acquiring computer system on lease or rental basis. However, changing of hardware quite often will create problems in developing appropriate software for the purpose.

3. Estimation of Work Load. In order to make optimum utilisation of computer capacity, it is necessary to make a correct estimate of the work load. The absence of any past experience and a lack of computer knowledge to the user department has made this task quite problematic.

4. Un-realistic Time Schedules. There is tremendous pressure from Government of India and Reserve Bank of India to computerise banking operations. They are keen to achieve results in much shorter time than what is possible in many cases. This puts in computer professionals to work under lot of stress and in many cases they are not in a position to adhere to the declared schedule.

5. Lack of Computer Culture. In order to get maximum benefits from the computerised system it is necessary that the users develop an appreciation for understanding the computer intricacies and computer culture. Computer culture permeates gradually into an organisation through continuous work experience. Banking industry has its own distinct culture developed over the last hundred year. Of course, this culture differs marginally from bank to bank. However, one feature is common. This feature is : "resistance to change". In order to overcome this difficulty, it is necessary that sustained efforts are made to educate the bank staff about the utility of computers through all available means.

6. Lack of Infrastructural Facilities. Effective computerisation requires certain basic infrastructural facilities *e.g.* appropriate equipment, qualified man-power, continuous power supply, security of data and restricted access to computers. The Indian Banks lack in respect of many of these facilities. This all results in improper and under-utilisation of computer facilities.

In spite of all these limitations, there is no denying the fact that banking industry has to be computerised, if it has to move forward. Of course, effective computerisation will take quite some time, energy and resources. However, errors of judgement should not deter those who are in the banking industry and those who are outside to extend helping hand in it. Banking is a service industry and therefore, the bank employees must be prepared to provide a better service. It may be useful here to suggest that since the requirements of commercial banks in the fields of computerisation are quite different from those in other disciplines, it will be useful to develop an apex computer consultancy organisation for commercial bank.[1] The Reserve Bank of India can play a lead role in the respect. This is being done by the RBI to certain extent as given below.

Reserve Bank and Computerisation

As back as in July 1983, the Reserve Bank of India appointed a committee to draw a phased programme for the banking industry keeping in mind its future expansion. The committee comprised of eleven members with Dr. C. Rangarajan. Dy. Governor of RBI, in 1984, issued detailed guidelines for mechanisation of banking services. Initially the banks were advised to introduced mechanisation/ computerisation at branches in metropolitan and urban areas in a phased manner.

However, nothing much could be achieved in this direction due to lack of infrastructure facilities and opposition from the bank employee's unions. In March, 1987, the Indian Banking Association (IBA) and bank employees' unions entered into an agreement whereby public sector banks were allowed to instal 5,480 Advanced Ledger Posting Machines (ALPMs) at their branches. As on the same date, banks had also installed 218 mini-computer systems at their regional/zonal offices.

Computerisation of branch operations got a major boost in 1993-94 consequent on the agreement between the Indian Banks' Association (IBA) and the employees' unions in October, 1993. As a result of this agreement as on June 30, 1996, 4,523 branches of public sector banks were eligible for computerisation. Of these around 2,900 branches were identified for full computerisation by end of March, 1997. At the end of June 1996 1,394 branches were fully computerised.

1. Bajwa K.S. issues before Banks in Computerisation, PNB Monthly Review, November, 1988.

At the end of June 1996, public sector banks had installed 13,372 Advanced Ledger Posting Machines (ALPMs) at 4,238 branches. At their regional/zonal offices, so far 454 mini-computers have been installed at these banks. Due attention was being paid to be billingrealisation efforts as well with the facility available at 1770 sites.

The year 2000 (Y2K) problem was a major supervisory challenge address by the financial system supervisors across the world. The preparations made by the banks and financial institutions were closely monitored and reviewed during the year. Year 2000 risk assessments, mitigation measures, validation processes and outcomes were documented and subjected to independent verification. Contingency plans, conforming to the minimum parameterisation recommended by the Reserve Bank were drawn up for the operationalisation in the event of system failure. Moreover, hard copies of all important books, including customer accounts and treasury operation, were prepared and kept in readiness to ease temporary switch over to manual processing in the event of need. With elaborate preparations, all banks and financial institutions have reported successful transition across the century date change. Banks and financial institutions have reported a smooth leap year and financial year transition as well.

10. ECONOMIC LIBERALISATION AND BANKING SECTOR REFORMS

New Economic Policy

Since July 1991, the Government of India took up the task of redesigning its economic policy through the following measures : (*a*) controls to be replaced by liberalisation ; (*b*) private sector to be expanded in place of public sector ; (*c*) private foreign investment to be stimulated ; (*d*) improved technology of production to be introduced ; (*e*) modernisation of agriculture to be encouraged ; (*f*) trade policy, fiscal policy and monetary policy to be suitably amended ; (*g*) budgetary deficit to be checked.

The thrust of the new economic policy is towards creating a more competitive environment in the economy as a means to improve the productivity and efficiency of the system. To achieve the objectives of the new economic policy, various reforms have been introduced in the industrial policy, trade policy, fiscal policy and monetary policy.

Various reforms under the new economic policy (1991) may be broadly divided into two parts:

1. Structural Reforms. These reforms relate to consolidating the supply side of the economic system of the country. They include : (*a*) liberalism, (*b*) privatisation, (*c*) globalisation, and (*d*) competitive public sector.

2. Stabilisation Reforms. These reforms relate to consolidating the demand management and include monetary and fiscal policy reforms.

Economic Liberalisation

Economic liberalisation is the most important aspect of the new economic policy of the government (1991). Liberalisation means liberalising the trade and industry from unnecessary restrictions and making them more competitive and efficient.

The following liberalisation measures were taken under the new economic policy :

(*i*) Excepting 18 industries, all other industries were delicensed. In other words, to set up these other industries, no licensing is required.

(*ii*) Most of the industries are free to expand themselves according to the needs of the market.

(*iii*) Producers are free to decide, on the basis of the conditions in the market, what commodity they are to produce.

(*iv*) While taking investment decisions, the firms need not obtain prior sanction from the government.

(*v*) Industries are free to buy foreign exchange from the open market and make necessary imports.

Past Performance of Indian Banking

Since nationalisation (1969), Indian banking system has made a remarkable progress in extending its geographical spread and financial reach. But, despite this progress, there has been a gradual fall

in its operational efficiency. A number of factors were responsible for the decline in the efficiency and profitability of the banking sector : (*a*) massive and uneconomic expansion of bank branches ; (*b*) directed investment ; (*c*) directed credit programmes ; (*d*) inadequate attention to portfolio quality; (*e*) weakness in the internal organisational structure of banks ; (*f*) lack of sufficient delegation of authority ; and (*g*) inadequate internal controls.

Objectives of Financial (Banking) Sector Reforms

In order to meet the changing needs of the liberalised economy, the government has introduced many banking sector reforms. The broad objectives and directions of these reforms, as stated in the Eighth Five Year Plan Document, are as follows :

(*i*) The Narasimham Committee's recommendations will form the starting point of financial sector reforms.

(*ii*) The financial sector reforms will be aimed at improving the financial strength of the banks and other financial institutions and will cover (*a*) the reduction of directed credit, (*b*) adequacy of reserves of banks and other financial institutions, (*c*) framing prudential norms and guidelines, (*d*) stock market reforms.

(*iii*) Diversification of variety of institutions in the financial sector will be encouraged; and their entry and exit will be eased.

(*iv*) Diversification the financial instruments will be encouraged.

(*v*) The central control on the rates of return on various financial instruments and investments will be relaxed.

(*vi*) Financial market prices and investment practices will be such as to direct funds efficiently and to harmonise the rates of return.

(*vii*) Special arrangements will continue to be necessary to ensure that funds flow to new, small and rural enterprises and investments of high social priority.

(*viii*) The overall thrust of these reforms will be to ensure that the financial system operates on the basis of operational flexibility and financial autonomy with a view to increase efficiency, productivity and profitability.

11. NARASIMHAM COMMITTEE REPORT–2 ON BANKING REFORMS

The Narasimham Committee on banking sector reforms submitted its second report to the Finance Minister, Mr. Yashwant Sinha, on April 23, 1998. The agenda of the committee was to review the progress in the reforms in the banking sector over the past six years and suggest a future course of action. According to the report, since 1991-92, several steps have been taken to improve productivity, efficiency and profitability of the banking sector on the one hand and provide it greater operational flexibility and functional autonomy in decision making on the other.

In its report, the Committee suggested the second phase of banking reforms which would focus on (*a*) strengthening the foundations of banking system, (*b*) streamlining procedures, (*c*) upgrading technology and human resources development and (*d*) making structural changes in the system, including three-tier banking system.

The important recommendations of the Committee are stated below :

(*i*) The Committee suggests the merger of strong banks because such merger will have a multiplier effect on industry.

(*ii*) The committee is against the merger of strong banks with the weak banks because it will have a negative effect on the asset quality of the strong bank.

(*iii*) Some large Indian banks should be given an international character.

(*iv*) Concept of narrow banking can be tried to rehabilitate weak banks.

(*v*) Small, local banks should be confined to states or cluster of districts in order to serve local trade, small industry and agriculture.

(*vi*) Government role in the public sector should be reexamined on the issue whether real autonomy and flexibility of banks is consistent with public ownership.

(*vii*) Functions of boards and managements should be reviewed so that the boards remain responsible for enhancing shareholder value.

(*viii*) Minimum prescriptions for capital adequacy needs to be reviewed because, among other things, banks are getting more exposed to off-balance sheet risks.

(*ix*) Reserve Bank of India Act, Banking Regulation Act, Nationalisation Act, and State Bank of India Act should be updated. Some of the provisions of these Acts are required to be amended to bring them in line with the current needs of the banking industry.

(*x*) Regulations of associated supervision should be concerned with laying down prodential and disclosure norms and sound procedures and to ensure adherence to these, instead of getting involved in day-to-day management.

(*xi*) Non-Bank Financial Companies' lending activities should be integrated with the financial system.

(*xii*) Rural credit facilities should be linked with other constituents of the financial system.

(*xiii*) Recruitment procedures, training and remuneration policies should be reviewed.

(*xiv*) There is a need for public sector banks to speed up computerisation and focus on relationship banking.

12. USE OF INFORMATION TECHNOLOGY (IT) IN BANKING

Financial institutions have been using information technology (IT) since the middle of the 20th century. They use it for gathering, processing, analysing and providing information according to the needs of customers. The technological revolution in banking began in 1950s when the first automated book-keeping machines were installed at a few U.S. banks. Second revolution occured in 1970s with the advent of electronic payment technology. Today, IT has become inseparable part of banking industry.

New Concept

As a result of the application of IT, the banking sector has undergone innovative changes. Technological innovations have brought about both external as well as internal changes. The external innovations can be found in product and service offering. The internal innovations are found in operational functioning of the banks.

The use of IT in banks has resulted in the introduction of several new concepts of banking–such as on-line banking, telephone banking, internet banking, universal banking, automatic telling machines (ATMs), E-banking, etc.–with quick electronic services to the customers. All these new types of banking services have become essential in the modern age (*a*) to face the challenge of globalisation and liberalisation in the economy, and (*b*) to reap the benefits of IT revolution.

1. On-line Banking. Keeping in line with the development of modern information technology, banks are now fast going on line. On-line banking (or mobile banking) refers to total automation of banking system. It enables the banks to conduct transaction and provide information any time, anywhere and through any mode (including internet-friendly cellular phones).

On-line banking service allows customers to manage their money from any type of browser devise including mobile phones, internet-enabled TV and even small hand electronic organisers. Using a personal computer (PC) to access your accounts, transfer funds, pay creditors and check if payment has been made, etc, is called on-line banking. It allows customers to have constant access to accounts at any time of the day. Bankers automated clearing system (BACS) has been introduced in on-line banking to reduce paper cost and risk of security.

On-line banking ensures the following services to the customers : (*a*) checking the position of account; (*b*) moving the spare cash into an interest bearing account ; and (*c*) making high value payments without risk; (*d*) one can also send short message via mobile phone.

2. Telephone Banking. Telephone banking refers to dialling one telephone number using any telephone to access account, transfer funds, request statements or cheque books. Simply by following a recorded message and touching the key on your phone, it allows a customer to check account at a convenient time and get things done without visiting the bank. Telephone banking aims at providing 24 hour service which is fast, convenient and secured for all customers.

3. **Internet Banking.** The internet in the form of Web service can have a significant impact on banking. It provides a platform to build system within the banks and between banks and their partners. With the internet banking, various normal banking transactions, like balance inquiry, statement of account, transfer of funds, request for cheque book, demand draft, stop payment of cheque and payment of utility bills, can be performed just by the click of mouse.

Thus, internet brings the following benefits :

(*i*) It offers safe and convenient ways not only for banking transactions but also web-shopping.

(*ii*) In internet banking, accounts can be accessed 24 hours a day and financial transactions can be done conveniently.

(*iii*) This service increases communications with customers and are free to cost.

(*iv*) It helps to make good choices and decisions which avoid scams in banking.

4. **Universal Banking.** The adoption of IT in banking industry developed the concept of universal banking. The banking system, which provides services relating to saving and loans besides investments is called universal banking. This is very common in Eurrope. IT has made provision for automated credit transfer as common way of paying benefits by the government.

In recent years, the concept of universal banking is getting into post offices. The idea is to have access to basic accounts of banking through post offices.

Benefits. (*a*) IT in universal banking ensures benefits such as modernisation of welfare payments, improving the standards of customer's service, etc. (*b*) In universal banking, customers will have the opportunity to use the post office for over-the-counter banking, credit card accounts, basic banking accounts and other on-line banking transactions.

5. **ATM-cum-Debit Card.** ATM is an automatic Teller Machine that disburses cash once the ATM card is inserted and a PIN (Personal Identification Number) is keyed in. ATMs not only disburse cash but also give details of the balance, deposit cash and cheques and accept mail. However, the VISA ATM service provides the service of withdrawing cash and not other services.

All the ATMs are open 24 hours. None of the ATMs are inside a bank branch. Thus, the customer has access to it round-the-clock. It is in this sense, the ATM facility is commonly known as 'all time money' or 'any time money' facility.

The individual banks have their own ATMs and this facility is being offered as an additional service on a best effort basis. The customer can withdraw upto a certain specified percentage (say 40%) of his credit limit subject to a maximum of specified amount (say ₹ 10,000) per day. He cannot choose the denominations of currency notes. Most machines, however, issue either ₹ 500 or ₹ 100 notes.

Procedure for using ATM. For using ATM, proper procedure is to be followed :

(*i*) Insert the ATM card into the machine as directed and wait till the machine indicates to key in the PIN.

(*ii*) Wait for a few seconds till the machine processes the PIN.

Instructions for Safe Use of ATM

(*i*) Ensure to sign on the signature panel on the reverse of the ATM card as soon as the card is received.

(*ii*) Report the loss of card immediately to the bank, if the card is misplaced or stolen, to prevent misuse.

(*iii*) Do not disclose the PIN to any one.

(*iv*) Do not hand over the card to any unauthorised person, even if he claims to be representative of the bank.

(*v*) Do not write down the PIN on the card or anywhere. Memorise it.

(*vi*) Keep the card safe and donot leave it unattended.

Debit card Facility. Some ATM cards are also debit cards which can be used in shops and super-markets. The purchase amount is deducted immediately from the customer's account. The debit card

service is meant for withdrawals against the balance already available in designated account. It is the ATM card holder's obligation to maintain sufficient balance in the designated account to meet withdrawals and service charges.

6. **E-Banking.** E-banking is related to three channels : (*a*) ATM, (*b*) internet banking, and (*c*) tele-banking. These channels can supplement each other in ensuring the conventional way of delivering banking services. In a way, it is difficult to define the concept of E-banking as it is associated with different channels of banking.

Impact of IT in Banking Sector

The impact of IT in banking sector is not easy to assess due to the difficulty of measuring productivity accurately, particularly when the quality of service is changing as a result of such factors as convenience, speed and lower risk. However, the following reasons can be identified for the banks to make investment in information technology.

(*i*) The banks anticipate reduction in operating costs through such efficiencies as the streamlining office processing and elimination of error-prone manual input data.

(*ii*) Banking institutions see opportunities to serve their current customers by offering new products and services.

(*iii*) Banks are able to develop and implement sophisticated risk, information management system and techniques with more powerful data storage and analysis technologies.

(*iv*) Investment in IT in banking sector has forced them to switch on to automation of existing processing.

(*v*) Cost sharing between customers and products and its analysis forced banks to go for information technology.

(*vi*) Banks have recognized that they need to offer the conveniencies of new technology to retain their existing customers.

(*vii*) As a result of investment in IT, the banks have been forced to bring about general changes in their business.

Impact of IT can also be assessed keeping the interest of management, employees and customers in banking industry in mind.

1. **Management.** The adoption of IT has positive effect on banking management. The tasks of financial reconciliation, financial control, collection of information about branches, etc. become easy for policy decisions. All balances and reconciliation are done on computers, which reduce errors. Management reports and reviews now provide information to the managers about the working of the banks at a glance.

2. **Employees.** The information system brings technology to the counter. Now the employees can have information at their fingertips. The IT has removed manual labour and has replaced the old control room with one operator. The employees can easily process loan applications, credit analysis and other transactions with computers.

3. **Customers.** IT has increased the accessibility of customers to the banks. The new banking concepts, such as online banking, internet banking, ATM, telephone banking, etc., have made banking transactions easy and convenient. Thus, the use of IT in banking ensures good and quick service with low transaction cost to the customers.

Conclusion. IT has a lot of influence on banking business. Unfortunately, in certain areas, the employees and customers may not be satisfied with the application of IT in banking organisation. This is due to the fact that they lack sufficient knowledge about the IT and suffer from techno-phobia. There is fear of fraud with increased use of telephones or computers. Customers are greatly confused with the new concepts of banking. Thus, the success of the use of IT in banking depends upon the spread of knowledge and awareness among the employees and customers about IT, through organising training-cum-awareness programmes.

Questions

1. What do you mean by Commercial Bank? Discuss the functions of Commercial Banks.

2. What do you mean by Commercial Bank? Discuss the types of Commercial bank.

3. What do you mean by Commercial Bank? Discuss the credit creation function of Commercial Bank.

4. What do you mean by Commercial Bank? Discuss the Balance sheet of Commercial Bank.

5. What do you mean by Commercial Bank? Discuss the portfolio Management of Commercial Bank.

6. What do you mean by Banking Sector Reform? Discuss how it will increase the productivity of Banking Sector.