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SCHOOL OF MANAGEMENT STUDIES

UNIT– I – TREASURY MANAGEMENT – SBAA3005

INTRODUCTION

concept of treasury management – employment of statutory surplus -Need for specialised approach in the bank- scope and functions of treasury management – nature of treasury assets and liabilities – objectives of treasury – Role and functions of treasury department

Treasury generally refers to the funds and revenue at the disposal of the bank and day-to-day management of the same.

The treasury acts as the custodian of cash and other liquid assets.

The art of managing, within the acceptable level of risk, the consolidated fund of the bank optimally and profitably is called Treasury Management.

It is the window through which banks raise funds or place funds for its operations.

Treasury • Treasure - Gold, silver, jewelry, money

Treasury – Storage place of treasure • Treasury generally refers to the funds and revenue of the bank.

Treasury Management is an activity associated with managements of cash and funds in an organisation.

It is one of the core and most important activity of financial management and a finance manager should be aware about core aspects of treasury management

Treasure management means "To plan, organise and control cash and borrowings so as to optimise interest and currency flows, and minimise the cost of funds "

or in other words "the handling of all financial matters, the generation of external and internal funds for business, the management of currencies and cash flows, and the complex strategies, policies, and procedures of corporate finance"

It involves ensuring that proper funds are available with the company at the time of outflow required & also that funds are not kept untilised for a good long time...this requires investing/disinvesting funds in open ended mutual fund schemes.

The art of managing, within the acceptable level of risk, the consolidated fund of the bank optimally and profitably is called Treasury Management.

Treasury management (or treasury operations) includes management of a company's holdings, with the ultimate goal of managing the firm's liquidity and mitigating its operational, financial and reputational risk.

Treasury Management includes a firm's collections, disbursements, concentration, investment and funding activities.

Why management of money is needed?

• Until recently, no major efforts were made to manage cash.

• Competitive business environment resulting from the liberalization of the economy, there is a pressure to manage cash.

• The demand for funds for expansions coupled with high interest rates, foreign exchange volatility and the growing volume of financial transactions have necessitated efficient management of money.

5• Managing the daily cash flow and liquidity of funds within the bank.

• Handling the bank's investments in securities, foreign exchange, asset/liability management.

• Includes a bank's collections, disbursements, investment and funding activities.

Objectives of treasury management

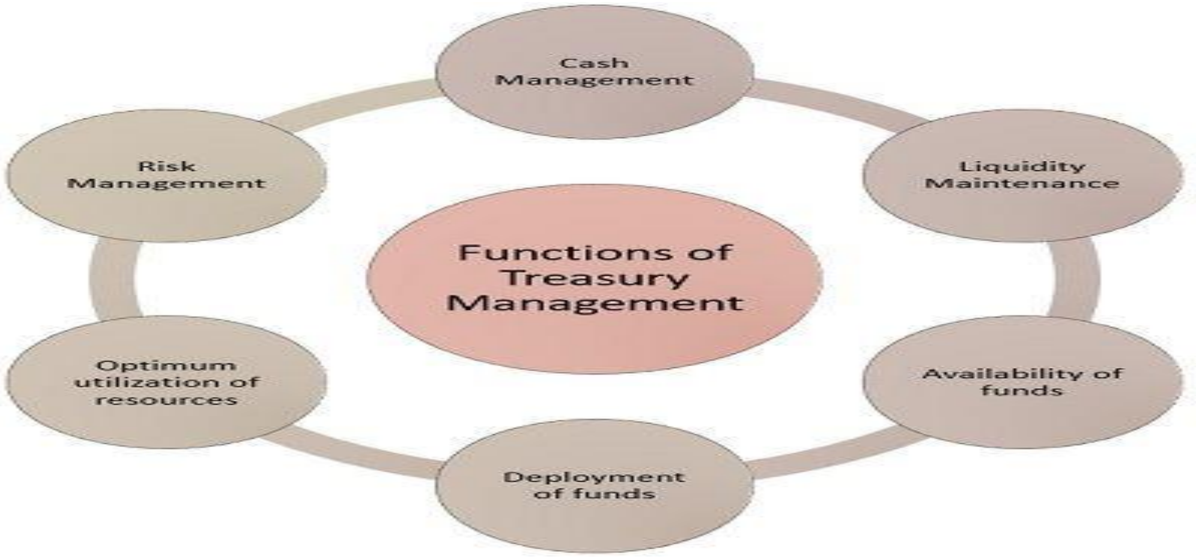
Availability of right quantity – It ensures that the funds have been arranged in the required quantity. This quantity is available to the firm either as external loans or as internal generation.

Availability at right time – The requisite funds for day to day working of the firm are available in time in addition to being available in quantity.

Deployment of fund in right quantity – It ensures that right quantity of funds is deployed. For developing the right amount of funds, the treasury manager keeps track of all receipts of funds and time table of deployment of funds is to be drawn up.

Deployment of fund in right time – A logical corollary of sourcing funds at the right time is that funds should be deployed at the right time. The treasury manager has to honour the outstanding commitments on working capital account within a short span of time.

Profiting from availability and deployment – One of the prime objectives of a treasury manager is to ensure timely procurement of right amount of funds and timely deployment of right amount of funds. The objective results in administrative smoothening and paves way for register achievement of performance targets of the form. Modern day treasury manager has another objective which is to profit from such sourcing and deployment.



Treasury Management aims to ensure that adequate cash is available with the organisation, during the outflow of funds. Further, it also contributes to optimum utilization of funds and makes sure that there are no unutilized funds kept in the firm for a very long term.

The functions of treasury management are discussed below:

Cash Management: Treasury Management includes cash management, and so it ensures that there are an effective collection and payment system in the organization.

Liquidity Management: An optimum level of liquidity should be maintained in the business, for the better and smooth functioning of the business, i.e. the company must be able to fulfil its financial obligation when they become due for payment, such as payment to suppliers, employees, creditors, etc.And to do so, cash flow analysis and working capital management act as the most important tool for treasury management, to achieve its strategic goals.

3.Availability of funds in adequate quantity and at the right time:

The treasury manager has to ensure that the funds are available with the organization in sufficient quantity, i.e. neither be more nor less, to fulfil the day to day cash requirement for the smooth functioning of the enterprise.

Further, timely availability of funds also smoothens the firm’s operations, resulting in the certainty as to the amount of inflows available with the company at a particular point in time.

4.Deployment of funds in adequate quantity and at the right time:

The deployment of funds has to be done in right quantity such as the acquisition of fixed assets, purchase of raw material, payment of expenses like rent, salary, bills, interest and so forth.

For this purpose, the treasury manager has to keep an eye on all receipts of funds and the application thereof.Further, the funds must be available at the time of need, which may be different for different firms and also for the purpose for which they are used.

The period may differ from a week to month when it comes to acquisition of the fixed assets and two to three days in case of working capital requirement.

5.Optimum utilization of resources: Treasury Management also aims at ensuring the effective utilization of the firm's resources, to reduce the operating costs and also prevent liquidity shortage in the coming time.

6.Risk Management:

One of the primary objectives of the treasury management is to manage financial risk to allow the enterprise to meet its financial obligations, as they fall due and also ensure predictable performance of the business. It tends to identify, measure, analyse and manage risk in order to mitigate losses, that has the potential to affect the company's profitability and growth in any way. Hence, treasury management is accountable for all types of risk that can influence the business entity.

SCOPE OF TREASURY MANAGEMENT

A treasury department is to control and manage the bank's money (in terms of capital and liquidity) and to make sure that all parts of the bank can readily access the cash they need for their business activities.

LIQUIDITY MANAGEMENT

MONEY MARKET TRANSACTION

CAPITAL MARKET TRANSACTION

CORRESPONDENT BANKING

FOREIGN EXCHANGE MANAGEMENT

RATE DETERMINATION

LIQUIDITY MANAGEMENT

The objective of liquidity management is to maintain adequate level of liquidity and raise profitability of the bank managing the surplus liquidity.

Bank will follow raising cash on short notice with low cost as possible in shortage of funds and convert funds in earnings assets if surplus funds are available.

In the situation of surplus liquidity, the treasury should use in money market lending, reverse repo, buying T-bills, and government securities.

When the bank is in situation of deficit of liquidity, treasury should go for any of interbank borrowings, borrowing against T- bills and bond or debentures or Repo, Standing liquidity facility by NRB, liquidation of Treasury bills and bonds, Accepting and calling deposits etc.

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MONEY MARKET TRANSACTION

Money market is market where short term security with high liquidity are traded.It is used as a means for borrowing and lending in the short term basis i.e. one year or less than one year.The investment in Treasury bills shall be done for the purpose of maintaining statutory liquidity ratio and managing returns and liquidity.The treasury department will purchase the Treasury bill within the approved limits.

CAPITAL MARKET TRANSACTION

Capital markets are the market where long term securities are traded. In capital market, long term debt and equity are buying and selling. This type of market is composed of the both the primary and secondary markets. Treasury department shall make the long-term investment in capital market instruments like government bond, corporate bonds, preference shares and equity shares.

CORRESPONDENT BANKING

Another scope of the Treasury is the correspondent banking. Correspondent banking provides credit, deposit, collection, clearing and payment services to banks and financial institutions. These types of services are limited to bank and financial institutions.

FOREIGN EXCHANGE MANAGEMENT

The foreign exchange market or forex market as it is often called is the market in which currencies are traded. This is because the value of one currency is determined by its comparison to another currency. The first currency of a currency pair is called the ―base currency, while the second currency is called the counter currency. The currency pair shows how much of the counter currency is needed to purchase one unit of the base currency.

RATE DETERMINATION

Treasury should use two way pricing system to publish rates. Normally, price will be moved freely on the basis of the forces of demand and supply in the market. Dealers are responsible for issuing daily exchange rates of each convertible foreign currency. These are fixed against Nepalese rupees at the start of the business each morning. The spread of buying and selling rate would be as determined by the authority. Dealers will issue revised rates during the business hours if market conditions change significantly.

ROLE OF TREASURY MANAGEMENT AND BENEFITS

In its broadest sense Treasury covers cash management, corporate finance and financial risk management. Closer inspection reveals that the Treasury function undertakes a range of complex and skilled tasks; liaises with internal and external stakeholders and plays a key role in the smooth functioning and value creation of an organization.

Although the role of the Treasury function is constantly evolving, it can be broken down into 6 broad but interlinked categories:

1. Planning and Operations

Key Activities	Key benefits
Cash flow forecasting	Subsidiary and Group financial management
Risk forecasting	Risks are identified early and mitigated
Investment appraisal	Resources are directed to the best opportunities
Tax planning	Clear and quantifiable approach to the future
Pensions planning	Tested contingencies in the event of exceptions
Co-operate with Board on strategic development	Operational risk management
Choose and operate Treasury systems	Transaction costs minimized
Negotiate, analyze and manage the fee's and margins of service providers	Smooth operations
Ensure quality standards of service providers	Efficiency gains

2. Cash and Liquidity Management

Key Activities	Key benefits
Manage internal capital market by investing and lending to subsidiaries	Minimize external borrowing requirement
Work with the business to optimize commercial cash flows	Optimize interest expense
Work with the business to optimize working capital	Optimize tax expense
Minimize idle cash through netting and cash concentration	Avoid future liquidity problems
Confirmation and reconciliation of receipts	Create 'cash is king' culture
Timely disbursement of payments	Smooth operations and supplier relationships

3. Funding and Capital Markets

Key Activities	Key benefits
Optimization of capital structure	Optimization of Weighted Average Cost of Capital (WACC)
Manage short, medium and long-term investments	Maximize yield on assets
Ensure adequate liquidity to support the business	Minimize interest expense
Ensure adequate liquidity to meet obligations as they fall due	Access to capital at the right time, price and conditions
Arrange liquidity for strategic events such as M&A, Divestiture and JV's	Removal of concentration risks
Diversify capital sources, partners and maturities	Ensure good credit ratings
Portfolio management of debt, derivatives and investments	Ensure limits accurately reflected the borrowing requirement (thus minimizing commitment fees)
Ensure contractual terms and covenants do not constrain the business	Ensure hedging matches the funding profile (no over hedging)

4. Financial Risk Management

Key Activities	Key benefits
Seek natural hedges and offsets within the business	Visibility of financial risks on an enterprise basis
Interest Rate risk management	Minimize external hedging requirement
FX risk management	Minimize impact of external risk on P&L and Balance Sheet
Commodity risk management	Reduce volatility
Counterparty risk management	Access to capital at the right time, price and conditions
Credit risk management	Improve asset quality
Liquidity risk management	Create 'risk aware' culture

5. Corporate Governance

Key Activities	Key benefits
Ensure accurate valuation of financial instruments	Ensure the financial profile represents and true and fair view
Ensure accurate accounting of Treasury transactions	Adequate internal controls
Implement and manage treasury policies and procedures	Demonstrate preparedness
Provision of covenant tests and information to investors	Reputational risk management
Provision of compliance information to regulators	
Ensure accurate transaction history and audit trail	
Work with internal and external auditors	

6. Stakeholder Relations

Key Activities	Key benefits
Provide performance and risk analytics to Board	Access to capital at the right time, price and conditions
Manage relationship with banks and other investors	Relationship benefit from proactive communication
Manage relationship with credit rating agencies	Reputational risk management
Co-operate with Board and Investor Relations on shareholder matters	Valuable knowledge and contacts from deep involvement with financial markets
Ensure the Treasury function is understood and valued within the business	Tangible financial results in the form of cost savings, efficiency gains, yield enhancement and protecting profitability

TOOLS OF TREASURY MANAGEMENT

Analytic and planning tools

In treasury function, planning and budgeting are essential to achieve targets and to keep effective control on costs. Analysis of the data and information is necessary for planning and budgeting.

Performance budgeting is referred to as setting of physical targets for each line of activity.

The financial outlay or expenditure needed for each is earmarked to choose the least cost mode of activity to achieve the targets.

Productivity and efficiency improves by decentralization of responsibility and that is achieved by performance budgeting, where each department or section is made a profit center and is accountable for its targets, financial involvement and profits in financial terms, relative to the targets in physical terms.

This type of planning involving performance budgeting is best suited for service industry say a financial services company or bank where every department can function in a decentralized manner and achieve the targets.

Zero Based Budgeting (ZBB)

Another tool of analysis and performance is ZBB wherein each manager establishes objectives for his function and gain agreement on them with top management.

Then alternate ways for achieving these targets are defined and most practical way for achieving the targets is selected.

This alternative is then broken into incremental levels of effort required to achieve the objective.

For each incremental level of activity, costs and benefits are assessed. The alternative with the least cost is then selected

3. Financial Statement Analysis

Financial analysis of a company is necessary to help the treasury manager to decide whether to invest in the company. Such analysis also helps the company in internal controls. The soundness and intrinsic worth of a company is known only by such analysis. The market price of a share depends, among other things on the sound fundamentals of the company, the financial and operational efficiency and the profitability of that company. These factors can be known by a study of financial statements of the company.

4. Internal Treasury Control All economic units have the goal of profit maximization or wealth maximization.

This objective is achieved by short-term and long-term planning for funds.

The plans are incorporated in the budget in the form of activities and corresponding targets are fixed accordingly.

The next step in the process is the control function to see that the budgets are being implemented as per plans.

Control is thus part of planning and budgeting in any organization. Control is a process of constant monitoring to ensure that the activities are being carried out as per plans.

It is also noticed whether there is any divergence from the plans, what are the reasons for the divergence and what remedial action can be suggested.

the treasury department occupies a central role in the finances of the modern corporation.

It takes responsible for the company’s liquidity—ensures that a company has enough cash available at all times to meet the needs of its primary business operations. It sounds easy, right? In fact it is not.

Treasury Role-1. Cash Forecasting

This is the beginning of all other roles carried on the operation of a treasury department.

Dislike the accounting staffs who handle the cash receipt and disbursement activities on daily basis, treasury staffs need to draw all those accounting staffs records (within the organization including its subsidiaries if any), and compile it to generate a cash forecast (short and long-range). The forecast and all its components are needed to: determine if more cash is needed. If that is the case, then they can go on to plan for fund inquiry either through the use of debt or equity. plan for investment purposes, if the forecast results in surplus and cash excess shows up. plan its hedging operations by using the information at the individual currency level.

Treasury Role-2. Working Capital Management

Major usage of company’s cash is in the working capital area. Working capital is a key component of cash forecasting. It involves changes in the levels of current assets and current liabilities in response to a company’s general level of sales. The treasurer should be aware of working capital levels and trends, and advise management on the impact of proposed policy changes on working capital levels.

Treasury Role-3. Cash Management

Combining information in the cash forecast and working capital management activities, Treasury staff is able to ensure that sufficient cash is available for operational needs.

Treasury Role-4. Investment Management

When the forecast shows some excess funds at, the treasury staffs are responsible for the proper investment of it. Three primary goals of the role are: (a) maximum return on investment; (b) matching the maturity dates of investments with a company's projected cash needs; and most importantly is (c) not putting funds at risk.

Treasury Role-5.Treasury Risk Management

The treasury staffs are also responsible to create risk management strategies and implement hedging tactics to mitigate the whole company's risk—particularly in anticipating (a) market's interest rates may rise and leave the company pays on its debt obligations; and (b) company's foreign exchange positions that could also be at risk if exchange rates suddenly worsen.

Treasury Role-6. Credit Rating Agency Relations

A company may issue marketable debt. In this case a credit rating agency will review the company's financial condition and assign a credit rating to the debt. The treasury staff would need to show quick responds to information requests from the credit agency's review team.

Treasury Role-7. Bank Relation

A long-term relationship can lead to some degree of bank cooperation if a company is having financial difficulties, and may sometimes lead to modest reductions in bank fees. The treasurers should therefore, often meets with the representatives of any bank that the company uses to: discuss the company's financial condition, the bank ' s fee structure, any debt granted to the company by the bank, and foreign exchange transactions, hedges, wire transfers, cash pooling, and so on.

Treasury Role-8. Fund Raising

Maintaining an excellent relations with the investment community for fund raising purposes, is important—from the (a) brokers and investment bankers who sell the company's debt and equity offerings; to the (b) the investors, pension funds, and other sources of cash, who buy the company's debt and equity.

Other than those main roles, fundamentally the treasury staffs also monitor market conditions constantly, and therefore is an excellent resource for the management team should they want to know about interest rates that the company is likely to pay on new debt offerings, the availability of debt, and probable terms that equity investors will want in exchange for their investment in the company.

Treasury departments are structured in different ways to best meet the needs of an organisation.

They vary in size and structure according to the complexity of a business.

In smaller companies, treasury operations are sometimes carried out by just one person or may be a role conducted by a finance department. In a large, complex, international business, however, it is likely to involve a number of staff, who might be either professional managers, such as a regional treasurer, or specialists in particular treasury activities, such as foreign exchange dealers or investment managers. Because treasury activities involve transactions with large sums of money, processes are often set up so that no one single person carries out an end-to-end transaction

Most commonly a treasury department will be set up into three different departments:

1. Front office

Responsible for carrying out day-to-day analysis and transactions relating to the management of funding, risk, cash and liquidity.

2. Middle office

Only larger treasuries will have a middle office often picking up some of the roles under 'back office', commonly the reporting and analysis type roles, but it varies enormously by organisation.

3. Back office

Administers and supports the front office and its main functions are to validate (confirm and verify), settle, and account for deals.

Depending on the size of a company, treasury departments can be centralised, decentralised or a combination of both.

Companies that are geographically dispersed can benefit from decentralisation, particularly where local knowledge can be beneficial. Centralisation on the other hand is often more cost effective for an organisation.

In a decentralised set up, there will often be a small group of specialists located at the head office who act as advisors.

In a more centralised operation, treasury may undertake an agency role where the day-to-day treasury decisions are still made at local level by operational management but the execution is centralised to obtain efficiencies and economies of scale.

An in-house banking role is where the central treasury acts as an internal bank with which all the subsidiaries deal.

BASIS FOR COMPARISON	TREASURY MANAGEMENT	FINANCIAL MANAGEMENT
Meaning	Treasury Management is a part of financial management, which is concerned with the management of firm's cash and funds.	Financial Management refers to the managerial activity, that stresses on the management of firm's financial resources, to achieve the overall aim of the enterprise.
Plan	Implementation of financial plan.	Formulates, coordinate and administers financial plan, for controlling operations.
Focus on	Periodic examination of income and expense budgets.	Preparation and presentation of financial statements.
Strategy	Short term	Long term

treasury asset / liability which is created by corporate / treasury actions / decisions on funding / deployment, but is not tradable, is the Inter-bank Participation Certificate.

Loans and advances are specific contractual agreements between the bank and its borrowers, and do not form a part of the treasury assets, although these are obligations of the bank.

Some of the loan / assets can, however, become part of the treasury activity.

Treasury liabilities are distinguished from other liabilities by the fact that they are borrowings from the money (or bond) market. Deposits (current and savings account and fixed deposits) are not treasury liabilities, as they are not created by market borrowing.

Domestic Treasury Remittances: At the domestic or national level, the scope of treasury management function is to channelize the savings of the community into profitable investment avenues.

This job is performed by the Commercial Banks. Treasury management is a crucial activity of banks and financial institutions as they deal with the funds, borrowing and lending and investments.

By nature of their activity, they earn their profits through operations in money / near money claims. They borrow from the public in the form of deposits which along with other borrowings constitute their liabilities.

Their assets are mostly in the form of loans, advances and investments.

As their liabilities are mostly short and medium term in nature, funds management becomes critical for ensuring a proper matching of assets and liabilities according to the maturity of each and their costing.

Commercial banks being the creators of credit have an additional responsibility of maintaining their image of creditworthiness, safety and integrity.

The flow of funds i.e., sale or purchase of investment remittances that are happening in domestic treasury through: • Call / Notice Money lending. • Term Money Lending / Inter-bank Deposits. • Investment in CDs. • Commercial Paper. • Inter-bank Participation Certificates. • Derivative Usance Promissory Notes / Banker's or Corporate Acceptances. • Reverse Repos / CBLO – backed Lending through CCIL. • SLR Bonds (Notified as such by the RBI). o Issued by the Government of India as Securities and T Bills. o Issued by State Governments. o Guaranteed by Government of India. o Guaranteed by State Governments

Bonds (Issued by) o Financial Institutions. o Banks / NBFCs (Tier II Capital). o Corporates.

State-level Enterprises. o Infrastructure Projects. • Asset-backed Securities (PTCs). • Private Placements. • Floating Rate Bonds. • Tax-free Bonds. • Preference Shares. • Listed / Unlisted Equity. • Mutual Funds

The other Liabilities Product remittances are: • Call / Notice Money Borrowing. • Term Money Borrowing. • CD Issues. • Inter-Bank Participation Certificates. • Repos / CBLO – backed Borrowing through CCIL. • Refinance (RBI, SIDBI, NABARD, EXIM Bank, NHB). • Tier II Bonds (Issued by Bank).

TREASURY DEPARTMENT MUST ENGAGE IN THE FOLLOWING ACTIVITIES:

Cash forecasting. Compile information from around the company to create ongoing cash forecast. This information may come from the accounting records, the budget, capital budget, board minutes (for dividend payments) and even the CEO (for expenditures related to acquisitions).

2. Working capital monitoring. Review the corporate policies related to working capital, and model their impact on cash flows. For example, loose credit results in a larger investment in accounts receivable, which consumes cash.

3. Cash concentration. Create a system for funneling cash into a centralized investment account, from which cash can be most effectively invested. This may involve the use of notional pooling or cash sweeps

4. Investments. Use the corporate investment policy for allocating excess cash to various types of investments, depending on their rates of return and how quickly they can be converted into cash.

5. Grant credit. Issue credit to customers, which involves management of the policy under which credit terms are granted.

6. Fund raising. Determine when additional cash is needed, and raise funds through the acquisition of debt, sale of stock, or changes in company policies that impact the amount of working capital required to run the business

7. Risk management. Use various hedging and netting strategies to reduce risk related to changes in asset values, interest rates, and foreign currency holdings.

8. Credit rating agency relations. Keep any credit rating agencies informed of the company's financial results and condition, if these agencies are providing ratings on the company's marketable debt issuances.

9. Bank relations. Keep the company's bankers apprised of the company's financial condition and projections, as well as any forthcoming changes in its need for borrowed funds. The discussion may extend to the various services provided by the banks to the company, such as wire transfers, and so forth.

10. IT systems. The department maintains treasury workstations that provide it with information about cash holdings, projections, market conditions, and other information.

PRESENT STATUS OF TREASURY MANAGEMENT IN INDIA

Treasury management is still in its infancy in India. It is still considered as a sub-function of the financial management.

In most of the companies, it is the finance manager which is also taking care of the treasury function.

Treasury operations are carried out professionally and systematically by some banks and financial institutions.

The first stage of evolution in treasury management is the establishment of a treasury function.

The second stage is running it as a profit center. In India, treasury operations at the micro level are expected to grow at a fast pace with increasing integration of the Indian economy with the world economy.

Treasury management is the science of managing treasury operations of a firm.

Treasury in its literal sense refers to treasure or valuables of the Government.

The valuables are nothing but the coins and the currency which are the medium of financial transactions in the country.

In the earlier days when the level of governmental operations was comparatively smaller, there used to be a centralized treasury into which the revenue receipts of the government were credited and from which the payments of the government were withdrawn.

In a federal setup, both the central govt. and the state govts. had their treasuries for managing the inflows and outflows of government finances.

Today when we speak of treasury management, we refer to all activities involving the management of revenues, inflows and outflows of government, banks and corporates etc. It is a general concept applicable to overall fund management.

Government as the sovereign power is the fountainhead of all treasury operations. It creates money by printing currency and minting coins.

This money flows into various channels which take money to various users of currency and coinage as a medium of exchange.

Thus at the macro level, the treasury operations revolve around Reserve Bank of India. RBI as a banker to the govt. creates the currency on behalf of the govt. and manages public debt.

It is also a banker to the banks and in this role, it controls the credit creation of banks.

At the micro level the concept of treasury and its management is mirrored in small corporate units which manage the cash flows on a daily basis.

As we move from the macro level to the micro level, the nomenclature of treasury management becomes diffused.

The terms treasury management and fund management are used almost synonymously. Conceptually, the latter is a general term, applicable to the business sector, while treasury management refers to the management of cash, currency and credit of sovereign power of the country.

The term currency here includes both national currency and the foreign currencies dealt with by the government

Historically, the treasury of a sovereign included gold, silver and other precious metals which were used as a medium of exchange. As a ruler, the sovereign exercised un-challanged rights over all the precious metals extracted from the earth.

The booties earned from wars, foreign exploits and domestic plundering kept on adding to the treasure chest of the sovereign.

These metals were circulated in the form of coins which became a medium of all commercial transactions in due course, replacing the earlier system of barter.

The practice continued till the nineteenth century when paper currency began to be issued. Reserve Bank of India manages the macro treasury management of the country. This is done through – Issue of Currency notes – Distribution of small coins, one, two and five rupee coins and rupee notes on behalf of the government – Maintenance of currency chests.

TREASURY OPERATIONS IN BANKING

All banks/financial institution (core principals and brokers) should ensure that they should try to serve for giving best service in the market operation within code of conduct issued for time to time.

Core principals should be conducted non-investment business with private individuals should segregate them into retail or wholesale for smooth function of business within sound guidelines.

It is essential that all staff should be familiar to code of conducts, in professional manner while entering into dealing transactions. Banks/financial institution will be responsible for dealing actions of the staff members. So it should be segregated work for the staff members such as no staff member control the full operation.

Banks/financial institution should identify any potential or actual conflict of interest that might arise when undertaking wholesale market transactions; and take measures either to eliminate these practices and provide fair treatment to counter parties.

Banks/financial institution should know their counter party and their credit worthiness before entering into contract.

It is good practice for principals, subject to their own legal advice, to alert counter party to any legal or tax uncertainty which they know are relevant to a proposed relationship or transaction

All principals have the responsibility to assessing the credit worthiness of their counter parties, or potential counter parties whether dealing directly or through a brokers/ firms.

Bank/financial institution should take measure of risk control and meet proper legal obligation for each contract to minimize the loss.

It is better to prepare a dealing mandate for each transaction. The mandate will be helpful to clarify the extent of a relationship between core principals and their customers with responsibility

Banks/financial institutions should observe confidentiality. It is essential for the preservation of reputable and efficient market place for bank/financial institution.

The transactions should not be dealt in non-market rates. So this practice should be avoided.

Adequate safeguards should be established to prevent abuse of information by staff members with respect to non-public price-sensitive information.

TREASURY CONTROL MECHANIS

Treasury management relates to most of the highly volatile instrument’s market dealing.

The volume of transactions involved in the dealings are usually heavy and risk in operation are also heavy. So any inorganization operation will create heavy loss for the institution. Generally control system may be related to

(a) Internal control of different, dealing rooms, settlement offices and control offices.

(b) Checking of unhealthy insider trading system.

(c) Mutual and ammicable solution of different conflicts of interest in dealing operation.

(a) Internal control of different, dealing rooms, settlement offices and control offices.

(b) Checking of unhealthy insider trading system.

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Internal Control System: It relates to forming policies to check leakage of profit for the institution.

In treasury operation, the role of Central Offices are vital.

They should form suitable guidelines for the institution in respect of various treasury dealing operations.

There are advice dealing offices to bifract all treasury items into different classes according to risk involvement.

As treasury business is a risky business responsible positioned persons should be delegated powers to deal in treasury operation with imposition of different limits on their discretionary power.

Some important area should be taken

(i) fixation of rates for each treasury items and

(ii) fixing limits for dealers to deal with different counterparties, with proper observation of confidentiality and adherance to best market practice.

Treasury executive should be ensured that the transactions were carried in correct manner by cross checking during each dealing day.

For above facts the central offices should develop proper policies and guidelines for treasury operation and should advice the dealers to deal according to policies of the following :

(i) restriction on deal in one’s own account.

(ii) timely advice to dealing offices in respect of any adverse transactions received or excess reporting.

(iii) timely submission of returns to different statutory authorities.

(iv) review of security and contingency arrangement of different offices.

(v) proper verification of compliance given by lower offices for irregularities

LIQUIDITY MANAGEMENT VIS-A-VIS TREASURY MANAGEMENT

Liquidity management ensures that the right amount of cash is available, at the right time and in the right place, is firmly positioned as a pivotal task for every treasurer.

Over the past few years, many treasurers have made substantial progress towards increasing the visibility of their cash flow and centralising cash within countries or regions

However, industry surveys indicate year on year that liquidity management and particularly cash flow forecasting remain the greatest challenges facing treasurers.

With credit more expensive and elusive for many companies, it is now imperative to tackle these challenges effectively.

Working capital management of a financial institution or bank or company is some how different to that of other trading units, the process starts with tapping of funds at lower rate in shape of deposits/borrowing and ends with investing the same in higher rate to earn profit out of business with a margin of small portion of cash-in-hand kept to meet day to day operation.

Question bank

1. Why management of money is needed?
2. Mention the objectives of treasury management
3. List down the tools of treasury management
4. Compare treasury management and financial management
5. Examine the statement –treasury department effectively deals with capital market transactions
6. Explain the key benefits of planning and operations of treasury management
7. Compare liquidity management and treasury management

PART B

1.Summarize the functions of treasury management

2.Discuss the scope of treasury management

3.Distinguish between treasury management and financial management

4.Analyze the role of treasury management in banking sector

5.Recommend the appropriate tools for treasury management

6.Evaluate the activities involved in treasury department

REFERENCE BOOKS

1. FINANCIAL TREASURY AND FOREX MANAGEMENT, THE INSTITUTE OF COMPANY SECRETARIES OF INDIA
2. Treasury Management: The Practitioner's Guide

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SCHOOL OF MANAGEMENT STUDIES

UNIT – II – TREASURY MANAGEMENT –SBAA3005

Liquidity management

Liquidity management – objectives .sources and deployment-CRR-SLR-CCIL, Netting/Elimination of exposures- RTGS

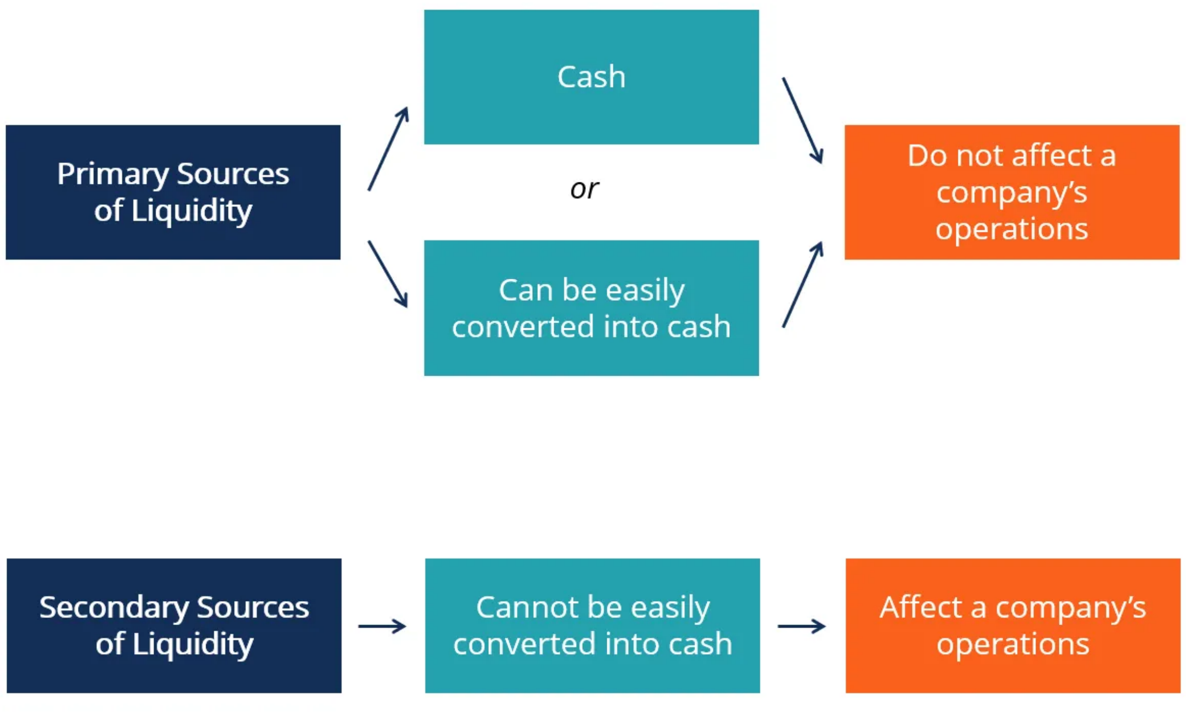
Liquidity management is a set of ongoing strategies and processes that ensure your business is able to access cash as needed — to pay for goods and services, make payroll and invest in new opportunities that arise

What are Sources of Liquidity?

For a company, its sources of liquidity are all the resources that can be used to generate cash. There are generally two major classes of sources of liquidity for a company

The primary sources of liquidity, which are either cash or other resources that can be converted into cash very easily; and

The secondary sources of liquidity, which usually can't be converted into cash as easily and fast as the primary sources and may imply asset sales or other actions that would affect a company's operations



Primary Sources of Liquidity

Primary sources of liquidity can be easily used to generate liquidity for the company. They are generally cash and other near-cash assets. More specifically, they include:

1. Cash balances (generally in a bank account)

They can be either actual cash already stored in bank accounts or cash that can be generated by the liquidation of short-term securities (which comes with a maturity of less than 90 days). On the balance sheet, such sources of liquidity are generally indicated by the item "cash and cash equivalents."

2. Short-term funds

They include commercial credit (i.e., trade payables), bank credit, and short-term securities not maturing within 90 days.

3. Cash flow management

They are related to the company's ability to manage cash effectively and the level of decentralization of cash inflows and outflows. For example, a company with a highly decentralized collection system may find it more difficult to access cash resources promptly.

Secondary Sources of Liquidity

Unlike the primary sources of liquidity, the secondary sources usually cannot be converted into cash without an effect on the company's operations. For example, it can be the case of a company that has run out of cash and near-cash assets and needs to liquidate assets, such as inventory, plants, and equipment, to pay its bills. More specifically, a company's secondary sources of liquidity include:

1**. Negotiating its debt obligations**

A company can generate liquidity by getting more favorable terms on its debt, i.e., by renegotiating maturities, the size and timing of principal repayments, and interest rates.

2. Liquidating assets

It can involve relatively liquid assets, such as inventory, or other less liquid assets, such as plant, equipment, and real estate properties. The urgency with which the cash is needed in the situations where liquidation is necessary generally implies that the assets are sold at a discount to their usual price.

3. Bankruptcy protection and reorganization

Sources of Liquidity and Business Health

Liquidity is a key factor in assessing a company's creditworthiness. To fully pay what it owes on time, a company must have access to proper sources of liquidity. Generally speaking, a financially healthy company should be able to meet its obligations relying on its primary sources of liquidity.

If access to secondary resources is needed, it means that the company has experienced, or is experiencing, liquidity issues. While it can be due to temporary conditions, it's often a sign of deeper fundamental problems in the business.

Ratios, Business Fundamentals, and Sources of Liquidity

For an analyst or a manager, it's usually possible to assess whether a company is likely going to need to use secondary resources of liquidity by assessing its financial health. The process generally relies on, but is not limited to, the analysis of the following aspects of a business:

1. Free cash flow generation, margins, and overall business trends

For example, other conditions being equal, a company that produces large and rising cash flows will be better equipped to face its current obligations without access to secondary sources of liquidity than a company with small and declining cash flows.

2. Liquidity ratios (Current ratio, quick ratio, and accounts receivable turnover)

For example, a deterioration in the ratio between cash and current liabilities can put a company in dangerous territory. Indications that a company is finding it difficult to collect payments can also contribute to increasing the risk of reliance on secondary sources of liquidity.

3. Competition, business risks, and other factors

Additional factors that are not visible in financial statements can indicate that a company's primary sources of liquidity will not be enough to face obligations. For example, it can be the case of a company that is going to face a large fine or a business that is going to face a sudden increase in competition or whose cash has been seized by authorities

The Bank Rate Policy:

From the very inception of the Reserve Bank of India (1935) until November 1951, the bank rate was kept unchanged at 3 p.c.

However, since then, it has been raised from time to time. Bank rate remained virtually inoperative between 1981 and 1991 as the RBI pegged it at 10 p.c. for the period 1981-91.

It was raised to 11 p.c. on 3 July, 1991 and to 12 p.c. on October 1991 for curbing money supply and reducing liquid-ity, credit and hence aggregate demand.

Credit Control Objective # 1. To Stabilise the Internal Price Level:

The important objective of credit control is to establish stability in the internal price-level. But this is possible only when if there is a proper adjustment between the demand and supply of credit.

If the supply of credit is less than the commercial requirements, i.e., demand, there is sure to be a decline in the price-level.

On the contrary, if the supply of credit exceeds the commercial requirements, i.e., demand, the internal price-levels are bound to go up. Therefore, the Central Bank should try to bring about a proper adjustment between the supply of credit and the commercial requirements of the country.

Credit Control Objective # 2. To Stabilise the Rate of Foreign Exchange:

The second important objectives of credit control are to maintain stability in the foreign exchange rates. The instability in exchange rates can have harmful repercussions on the foreign trade of the country. Therefore, the Central Bank in those countries whose foreign trade is important should pay special attention to the elimination of violent fluctuations in foreign exchange rates through credit control policy.

Credit Control Objective # 3. To Stabilise the Money Market in the Country:

Next important point to consider is that the credit control policy of the Central Bank should aim at the stabilisation of the money market in the country. To achieve this point the Central Bank should neutralize seasonal variations in the demand for funds.

Credit Control Objective # 4. To Control the Activities of Business Cycle:

Business cycles are a common phenomenon of capitalist countries which lead to periodic fluctuations in production, prices and employment. Therefore, the credit control policy of the Central Bank should be to eliminate or at least to reduce the havoc caused by the business cycle. By varying the supply of credit, the Central Bank can, to some extent, control the operation of the business cycle.

Credit Control Objective # 5. Promotion of Economic Growth in Shortest Possible Period:

It should be remembered that the chief objectives of the credit control policy in underdeveloped countries should be to promote economic growth within the shortest possible period. For economic growth backward countries suffer from financial crisis. Therefore, the Central Bank in those countries should try to solve the problem of financial crisis through planned expansion of bank credit.

credit Control Objective # 6. To Meet Business Needs:

According to Burgess and eminent economist—that "Credit is needed to meet the requirements of trade and industry. As business expands large quantity of credit is needed and when business Contracts Less Credit is needed. Therefore it is the Central Bank only which can need the requirements of business by controlling credit."

Background of RTGS

In June 1998, the Reserve Bank of Australia (RBA)implemented Real Time Gross Settlement (RTGS)

purpose of achieving finality of payments and enhancing stability in the financial and securities settlements can be completed have changed.

In india this system was launched on March 26, 2004 (on pilot basis by involving 4 banks) by RBI for large value transactions for banks and their clients.

 RBI expects 120 scheduled commercial banks and primary dealers to become part of the real time gross settlement system by June 2004.

Definition of RTGS v RTGS system is a funds transfer mechanism where transfer of money takes place from one bank to another on a "real time" and on "gross" basis. v This is the fastest possible money transfer system through the banking channel. v Settlement in "real time" means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. v "Gross settlement" means the transaction is settled on one to one basis without bunching with any other transaction.

Advantage & disadvantage of RTGS Real-time Payment Settlement:

Payments settled in real time on a transaction-by-transaction basis, as soon as they are accepted by the system. No Credit Risk :- There is no credit and settlement risk involved in RTGS system for receiving participant as each payment transaction is settled instantly. Predictability of Cash Flows:- RTGS facilitates predictability of cash flows as customers know when their accounts will be debited or credited. Benefits to Economy : The instant finality of payments ensures fast, secure and irrevocable settlement of major business and financial market transactions the only disadvantage of RTGS systems is the fact that it requires more liquidity than net settlement systems, as liquidity has to be available for each individual payment. several way to mitigate this liquidity problem. The system could have rules for how fast payments should be made in the system. RTGS system and the participants can develop queuing features, and algorithms that calculate the order of which payments should be made in order to get a smooth flow of payments

RTGS different from NEFT NEFT is also an electronic funds transfer system that operates on deferred net settlement (DNS) basis which settles transactions in batches. In DNS, the settlement takes place at a particular point of time. All transactions are held up till that time. NEFT Settlement take place 6 times a day during the week days (9.00 AM,11.00AM, 12.00 noon, 1.00PM, 3.00PM and 5.00 PM) and 3 times during Saturdays (9.00AM, 11.00 AM and 12.00 noon), Any transaction initiated after a designated settlement time would have to wait till the next designated settlement time. Contrary to this, in RTGS, transactions are processed continuously throughout the RTGS business hours

The Clearing Corporation of India Ltd

The Regulations framed hereunder shall be called "The Clearing Corporation of India Ltd. (Forex Settlement Segment) Regulations, 2009". (As amended in January, 2015)

APPLICABILITY These Regulations shall be applicable to all Members admitted to the Forex Settlement Segment of Clearing Corporation of India Ltd. hereinafter referred to as "Clearing Corporation".

APPLICATION FOR MEMBERSHIP

1. Every entity desirous of seeking Membership shall submit an application in the prescribed

format to Clearing Corporation complete in all respects together with all requisite

enclosures as required to be submitted in terms of the Application Form;

2. The application shall clearly specify that the applicant desires to seek Membership to the

Forex Settlement Segment of Clearing Corporation;

3. The application form shall be submitted along with the fees prescribed therefor.

B) PROCESSING OF APPLICATIONS

1. Every such application received in terms of clause (A) above shall be submitted to the

Approving Authority for consideration;

2. Clarifications and/or additional information sought by Approving Authority shall be furnished by the applicant. Such applications shall be processed further only upon receipt of complete particulars called for by Approving Authority; 3. Mere submission of completed application forms and/or additional information sought by Approving Authority does not by itself confer any right on the applicant to claim grant of

Membership to Clearing Corporation;

4. Upon receipt of approval of Approving Authority, Clearing Corporation shall communicate such approval to the applicant advising it to complete the other formalities outlined in these Regulations;

Upon receipt of the said advice, the applicant shall complete the other formalities stipulated in these Regulations and execute necessary documents in such form and manner as may be prescribed by Clearing Corporation from time to time. The necessary documents shall be executed by duly authorised signatory(ies) of the applicant.

C) MEMBER ID

1. On the applicant being admitted as a Member of Clearing Corporation it shall be allotted a unique Member ID;

Every Member shall incorporate the unique Member ID in all Trades reported to Clearing

Corporation for Clearing and Settlement;

3. Every Member shall incorporate the unique Member ID in all its communications to

Clearing Corporation;

4. Non-incorporation of the unique Member ID by a Member in any Trade or communication by a Member shall absolve Clearing Corporation of liabilities or consequences, if any,arising out of such inaction by the Member;

5. Every Member shall ensure that incorporation and/or use of its unique Member ID is

restricted to authorised personnel only and such Member shall be responsible for any loss

or consequences that may arise on account of unauthorized and/or wrongful use of unique

Member ID;

6. Clearing Corporation and/or any of its officials shall not be in any way responsible for

any loss or consequences that may arise on account of unauthorized and/or wrongful use

of unique Member ID.

D) CLEARING MEMBER

A Member may be admitted as a Clearing Member for this segment. Such Member would

be entitled to have USD/INR trades of its constituents cleared and settled in terms of

policies and procedures to be notified by the Clearing Corporation effective from a date notified by Clearing Corporation.

KINDS OF TRADES

1. Clearing Corporation shall notify the kind of forex Trades that it undertakes for Clearing

and settlement by giving an advance notice of 30 days;

2. The kinds of forex Trades that Clearing Corporation shall undertake for Clearing and settlement shall be based on its tenor and currency;

3. Clearing Corporation shall undertake Clearing and Settlement of inter-bank INR/USD

Cash, Tom, Spot and Forward Trades as per details hereunder:

4. The tenor based forex Trades shall be:

a) Cash Trades

Forex Trades where the value date for settlement is the same as the relative trade date

b) Tom Trades

Forex Trades where the value date for settlement is the next business day from the

relative trade date.

c) Spot Trades

Forex Trades where the value date for settlement is the second business day from

the relative Trade date.

d) Forward Trades

Forex Trades where the value date for the settlement falls beyond the Spot date.

The Trades shall include Fx-swaps. Provided that in the case of swap Trades:

i. Members shall ensure that both legs of the Trade are reported separately;

ii. Members shall ensure to include a SWAP identifier as notified by Clearing Corporation to link both legs. A SWAP identifier is a 16 digit alpha numeric field used in the IFN300 to identify the SWAP trades.

TIMINGS

1. Clearing Corporation may specify the time schedule for reporting of Trades by Members

to Clearing Corporation as also for various other activities incidental to the Clearing and

Settlement process;

2. The time schedule prescribed by Clearing Corporation in terms of clause (1) above is contained in Annexure (I) and (VI);

3. Clearing Corporation, shall have the authority to alter, modify, add, and delete time schedules for the various activities prescribed in clause (1) above, and notify the Members of such changes at least 30 days before such changes shall take effect; Notwithstanding anything contained above, Clearing Corporation may, if it is of theopinion that it is in interest of the market, alter, modify, add and delete time schedule by notifying such changes at least 24 hours before such changes take effect.

4. The Member shall adhere to the time schedules prescribed by Clearing Corporation. Clearing Corporation shall not be responsible for Trades received after the cut-off times prescribed.

QUESTION BANK

PARTA

1 Why management of money is needed?

2 Mention the objectives of treasury management

3 List down the tools of treasury management

4 Compare treasury management and financial management

5 Examine the statement –treasury department effectively deals with capital market transactions

6 Explain the key benefits of planning and operations of treasury management

7 Compare liquidity management and treasury management

8 Examine two roles played by treasury department with example

9 Difference between Treasure and treasury

10 State the two main objectives of treasury department

PART B

1 Summarize the functions of treasury management

2 Discuss the scope of treasury management

3 Distinguish between treasury management and financial management

4 Analyze the role of treasury management in banking sector

5 Recommend the appropriate tools for treasury management

6 Evaluate the activities involved in treasury department

REFERENCE BOOKS

1.An Introduction to Banking: Liquidity Risk and Asset–Liability Management
Dr Moorad Choudhry publisher John Wiley & Sons
2. iquidity Risk Management by Baranyai, Eszter
publisher Vdm Verlag

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SCHOOL OF MANAGEMENT STUDIES

UNIT – III – TREASURY MANAGEMENT – SBAA3005

MONEY MARKET INSTRUMENTS AND PLAYERS

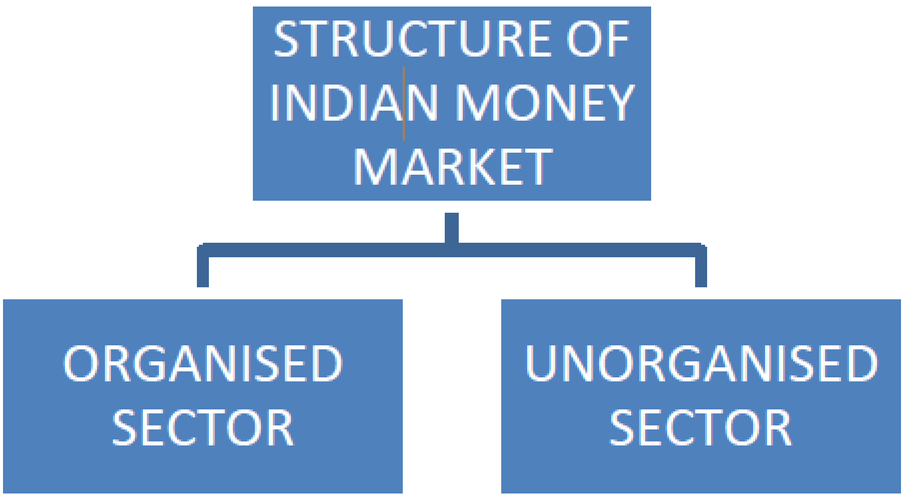
Money market – instruments an players-Government securities – Treasury bill-CP-CD-Call money bankers and specified institutions

Meaning

The Money Market is a market for lending and borrowing of short-term funds. It deals in funds and financial instruments having a maturity period of one day to one year. It covers money and financial assets that are close substitutes for money. The instruments in the money market are of short term nature and highly liquid.

Discuss the structure (OR) components of Indian money market.

The Indian money market consists of two segments, namely organized sector and unorganized sector. The RBI is the most important constituents of Indian money market. The organized sector is within the direct purview of RBI regulation. The unorganized sector comprises of indigenous bankers, money lenders and unregulated non-banking financial institutions. The structure or components of Indian money market is depicted in the chart 5.1.



ORGANISED SECTOR

Call and Notice Money Market

- Treasury Bills Market
- Commercial Bills Market
- Market for Certificates of Deposits (CDs)
- Market for Commercial Papers (CPs)

• Repos Market

• Money Market Mutual Funds (MMMFs)

UNORGANISED SECTOR

• Discount & Finance House of India (DFHI)

• Indigenous Bankers

• Money Lenders

• Unregulated Non-Bank Financia

• Intermediaries (Chit Funds, Nidhis and

Loan Companies)

• Finance Brokers

Organized Money Market Instruments and Features

1. **Call and Notice Money Market**: Under call money market, funds are transacted on overnight basis. Under notice money market funds are transacted for the period between 2 days and 14 days. The funds lent in the notice money market do not have a specified repayment date when the deal is made. The lender issues a notice to the borrower 2-3 days before the funds are to be paid. On receipt of this notice, the borrower will have to repay the funds within the given time. Generally, banks rely on the call money market where they raise funds for a single day. The main participants in the call money market are commercial banks (excluding RRBs), co-operative banks and primary dealers. Discount and Finance House of India (DFHI), Non-banking financial institutions such as LIC, GIC, UTI, NABARD etc. are allowed to participate in the call money market as lenders.

2. **Treasury Bills (T-Bills):** Treasury bills are short-term securities issued by RBI on behalf of Government of India. They are the main instruments of short term borrowing by the Government. They are useful in managing short-term liquidity. At present, the Government of India issues three types of treasury bills through auctions, namely – 91 days, 182-day and 364-day treasury bills. There are no treasury bills issued by state governments. With the introduction of the auction system, interest rates on all types of TBs are being determined by the market forces.

3. **Commercial Bills**: Commercial bill is a short-term, negotiable, and self-liquidating instrument with low risk. They are negotiable instruments drawn by a seller on the buyer for the value of goods delivered by him. Such bills are called trade bills. When trade bills are accepted by commercial banks, they are called commercial bills. If the seller gives some time for payment, the bill is payable at future date (i.e. usance bill). Generally the maturity period is upto 90 days. During the usance period, if the seller is in need of funds, he may approach his bank for discounting the bill. Commercial banks can provide credit to customers by discounting commercial bills. The banks can rediscount the commercial bills any number of times during the usance period of bill and get money.

4. **Certificates of Deposits (CDs):** CDs are unsecured, negotiable promissory notes issued at a discount to the face value. They are issued by commercial banks and development financial institutions. CDs are marketable receipts of funds deposited in a bank for a fixed period at a specified rate of interest. CDs were introduced in India in June 1989. The main purpose of the scheme was to enable commercial banks to raise funds from the market through CDs. According to the original scheme, CDs were issued in multiples of Rs.25 lakh subject to minimum size of an issue being Rs.1 crore. They had the maturity period of 3 months to one year. They are freely transferable but only after the lock in period of 45 days after the date of issue.

5.Commercial Papers (CPs): Commercial Paper (CP) is an unsecured money market instrument issued in the form of a promissory note with fixed maturity. They indicate the short-term obligation of an issuer. They are quite safe and highly liquid. They are generally issued by the leading, nationally reputed, highly rates and credit worthy large manufacturing and finance companies is the public as well as private sector. CPs were introduced in India January 1990. CPs were launched in India with a view to enable highly rated corporate borrowers to diversify their sources of short-term borrowings and also to provide an additional instrument to investors.

RBI has modified its original scheme in order to widen the market for CPs. Corporates and primary dealers (PDs) and the all India financial institutions can issue CPs. A corporate can issue CPs provided they fulfill the following conditions: (a) The tangible net worth of the company is not less than Rs.4 crore. (b) The company has been sanctioned working capital limit by banks or all India financial institutions, and (c) The borrowed account of the company is classified as a standard asset by the financing institution or bank.

6.Repos: A **repo** or **reverse repo** is a transaction in which two parties agree to sell and repurchase the same security. Under repo, the seller gets immediate funds by selling specified securities with an agreement to repurchase the same at a mutually decided future date and price. Similarly, the buyer purchases the securities with an agreement to resell the same to the seller at an agreed date and price. The repos in government securities were first introduced in India since December 1992. Since November 1996, RBI has introduced “Reverse Repos”, i.e. to sell government securities through auction.

7. Discount and Finance House of India (DFHI): It was set up by RBI in April 1988 with the objective of deepening and activating money market. It is jointly owned by RBI, public sector banks and all India financial institutions which have contributed to its paid up capital. The DFHI deals in treasury bills, commercial bills, CDs, CPs, short-term deposits, call money market and government securities. The presence of DFHI as an intermediary in the money market has helped the corporate entities, banks, and financial institutions to invest their short-term

Money Market Mutual Funds (MMMFs): RBI introduced MMMFs in April 1992 to enable small investors to participate in the money market. MMMFs mobilizes savings from small investors and invest them in short-term debt instruments or money market instruments such as call money, repos, treasury bills, CDs and CPs. These instruments are forms of debt that mature in less than a year.

(B) UNORGANIZED SECTOR OF INDIAN MONEY MARKET The unorganized Indian money market is largely made up of indigenous bankers, money lenders and unregulated non-bank financial intermediaries. They do operate in urban centers but their activities are largely confined to the rural sector. This market is unorganized because it's activities are not systematically coordinated by the RBI.

The main components of unorganized money market are:

1. Indigenous Bankers: They are financial intermediaries which operate as banks, receive deposits and give loans and deals in hundies. The hundi is a short term credit instrument. It is the indigenous bill of exchange. The rate of interest differs from one market to another and from one bank to another. They do not depend on deposits entirely, they may use their own funds.

2. Money Lenders: They are those whose primary business is money lending. Money lenders

Money lenders predominate in villages. However, they are also found in urban areas. Interest rates are generally high. Large amount of loans are given for unproductive purposes. The borrowers are generally agricultural labourers, marginal and small farmers, artisans, factory workers, small traders, etc.

3. Unregulated non-bank Financial Intermediaries: Theconsist of Chit Funds, Nithis, Loan companies and others.

(a) Chit Funds: They are saving institutions. The members make regular contribution to the fund. The collected funds is given to some member based on previously agreed criterion (by bids or by draws). Chit Fund is more famous in Kerala and Tamilnadu.

(b) Nidhis: They deal with members and act as mutual benefit funds. The deposits from the members are the major source of funds and they make loans to members at reasonable rate of interest for the purposes like house construction or repairs. They are highly localized and peculiar to South India. Both chit funds and Nidhis are unregulated.

4. Finance Brokers: They are found in all major urban markets specially in cloth markets, grain markets and commodity markets. They are middlemen between lenders and borrowers.

Examine the defects of Money Market in India.

Several steps were taken in the 1980s and 1990s to reform and develop the Indian money market. Despite these efforts, Indian money market continues to remain lopsided, thin and extremely volatile. Indian money market is relatively underdeveloped when compared to advanced markets like London and New York money markets. Its main defects are explained below:

1. **Existence of Unorganized Money Market:**This is one of the major defects of Indian money market. It does not distinguish between short term and long term finance, and also between the purposes of finance. Since it is outside the control and supervision of RBI, it limits the RBI's control of over money market.
2. **Lack of Integration:**The Indian money market is broadly divided into two sectors, the organized money market and the unorganized market. The organized market constitutes several institutions such as RBI, State Bank of India, commercial banks, cooperative banks and financial institutions. RBI as an apex body regulates their working. The unregulated sector is not homogenous in itself. It constitutes indigenous bankers, loan companies, money lenders, etc. There is no uniformity in their practices and there is multiplicity of functionaries.
3. **3. Multiplicity in Interest Rates:** There exists too many rates of interest in the Indian money market such as the borrowing rate of government, deposits and lending rates of cooperative and commercial banks, lending rates of financial institutions, etc. This is due to lack of mobility of funds from one section of the money market to another. The rates differ for funds of same durations lent by different institutions.
4. **4. Inadequate Funds:** Generally there is shortage of funds in Indian money market on account of various factors like inadequate banking facilities, low savings, lack of banking habits, existence of parallel economy, etc. However, the banking development particularly branch expansion, has improved the mobilization of funds to some extent in the recent years.
5. **Seasonal Stringency of Money:** The seasonal stringency of money and high rate of interest during the busy season (November to June) is a striking feature of Indian money market. There are wide fluctuations in the interest rates from one season to another. RBI has been taking various measures to avoid such fluctuations in the money market by adding money into the money market during the busy season and withdrawing the funds during the slack season.
6. **6. Absence of Bill Market:** A well organized bill market is necessary for linking up various credit agencies effectively to RBI. The bill market is not yet developed on account of many factors such as the practice of banks keeping a large amount of cash for liquidity purposes, preference for borrowing rather than discounting bills, dependence of indigenous bankers on one another, widespread practice of using cash credit, high stamp duty on usance bill, etc.
7. **7. Inadequate Credit Instruments:**The Indian money market did not have adequate short term paper instruments till 1985-86. There were only call money and bill markets. Moreover there were no specialist dealers and brokers dealing in the money market. After 1985-86, RBI has introduced new credit instruments such as 182-day treasury bills, 364-day treasury bills, CDs and CPs. These instruments are still in underdeveloped state in India. The above defects of Indian money market clearly indicate that it is relatively less developed and has yet to acquire sufficient depth and width. Thus, it cannot be compared with developed money markets such as London and New York money markets.

Explain briefly about the reforms undertaken in Indian money market.

The Committee to Review the Working of Monetary System chaired by S. Chakravarty made several recommendations in 1985 to develop Indian money market. As a follow-up, the RBI set up a Working Group on money market under the chairmanship of N. Vaghul, in 1987. Based on the recommendations of Vaghul Committee, RBI initiated a number of measures to widen and deepen the money market. The main measures are as follows.

1. **Deregulation of Interest Rates:** From May 1989, the ceiling on interest rates on the call money, inter-bank short-term deposits, bills rediscounting and inter-bank participation was removed and the rates were permitted to be determined by the market forces. Thus, the system of administered interest rates is being gradually dismantled.

2.Introduction of New Money Market Instruments: In order to widen and diversify the Indian money market RBI has introduced many new money market instruments such as 182-days treasury bills, 364-day treasury bills, CDs & CPs. Through these instruments the government, commercial banks, financial institutions and corporate can raise funds through the money market. They also provide investors additional instruments for investments. In order to expand the investor base for CDs and CPs the minimum amount of investment and the minimum maturity periods are reduced by RBI

. **3. Repurchase Agreements (Repos):** RBI introduced repos in government securities in December 1992 and reverse repos in November 1996. Repos and reverse repos help to even out short-term fluctuations in liquidity in the money market. They also provide a short-term avenue to banks to park their surplus funds. Through changes in repo and reverse repo rates RBI transmits policy objectives to entire money market.

4. Liquidity Adjustment Facility (LAF): RBI has introduced LAF from June 2000 as an important tool for adjusting liquidity through repos and reverse repos. Thus, in the recent years RBI is using repos and reverse repos as a policy to adjust liquidity in the money market and therefore, to stabilize the short-term interest rates or call rates. LAF has, therefore, emerged as a major instrument of monetary policy.

5. Money Market Mutual

Money Market Mutual Funds (MMMF):RBI introduced MMMFs in April 1992 to enable the individual investors to participate in money market. To make the scheme flexible and attractive, RBI has brought about many modifications. The important features of this scheme as of now are: (i) It can be set up by commercial banks, financial institutions and private sector. (ii) Individual investors, corporates and others can invest in MMMFs. (iii) Resources mobilized through this scheme can be invested in money market instruments as well as rated corporate bonds and debentures with a maturity period upto one year. (iv) The minimum lock in period is now 15 days.

6.Discount and Finance House of India (DFHI): In order to impart liquidity to money market instruments and help the development of secondary market in such instruments, DFHI was set up in 1988 jointly by RBI, public sector banks and financial institutions.

7. Development of Inter-bank Call and Notice Money Market: The call and notice money market is an inter-bank market the world over and therefore the Narsimham Committee has recommended that we adopt the same in India. However RBI in the past had given permission to non-bank institutions to participate in the call money market as lenders. As per the recommendations of Narsimham Committee RBI in 2001-02 has underlined the need for transforming the call money market into a pure inter-bank money market.

8. Regulation of NBFCs: The RBI Act was amended in 1997 to provide for a comprehensive regulation of NBFC sector. According to the amendment, no NFBC can carry on any business of a financial institution, including acceptance of public deposit, without obtaining a Certificate of Registration (CoR) from RBI.

9. The Clearing Corporation of India Limited (CCIL): The CCIL was registered on April 30, 2001 under the Companies Act, 1956, with the State Bank of India as the chief promoter. The CCIL clears all transactions in government securities and repos reported on the Negotiated Dealing System (NDS) of RBI.

Difference Between Capital Market and Money Market:

Capital Market	Money Market
1. It is a market for borrowing and lending long-term funds required business enterprises.	1. It is global financial market for borrowing and lending Of short-term financial assets
2. It is regulated by SEBI	2. It is regulated by RBI
3. Maturity period of capital market instruments are more than one year.	3. Maturity period of money market instrument is one year or less.
4. In capital market, there is classification between primary market and secondary market.	4. In money market, there is no classification between primary market and secondary market.
5. In capital market instruments are issued to finance long-term project as capital contribution.	5. Money market instruments are issued to meet working capital requirements of business.
6. Capital market instruments are riskier both with respect to returns and financial repayments.	6. Money market is generally much safer with minimum risk of default.
7. Capital market instruments include Shares, Long-term debentures, Bonds etc.	7. Money market instruments include Treasury Bills, Commercial Papers, Certificate of deposit, call money etc.
8. Participants of capital market include Mutual funds, Financial institutions, investors etc.	8. Participants of money market are Financial Institutions, Government, RBI, Banks etc.
9. Capital market has wider scope than money market.	9. To compared with capital market, the scope of money market is narrow.

SPECIALISED INSTITUTIONS DEALS IN MONEY MARKET

Commercial banks are the back bone of the money market. They form one of the major constituents of the money market. These banks use their short term deposits for financing trade and commerce for short periods.

The commercial banks invest their funds in the discounting of bills of exchange, i.e. both exchange bills or commercial bills and treasury bills or government bills to facilitate trade and commerce by mobilising the flow of money.

The commercial banks lend against promissory notes and through advances and overdrafts. The call money loans are also provided by these banks to the bill brokers and dealers in the stock exchange market. The commercial banks put their excess reserves in different forms or channels of investments which satisfy their conflicting principles of liquidity and profitability.

The aim is that the funds invested not only remain liquid in from but also earn high interest or yield income on them. A noteworthy point is that in addition to commercial banks there are cooperative banks, savings banks, financial companies, etc. also which form part of the money market.

Institution # 2. Central Bank:

The central bank plays a vital role in the money market. It is the monetary authority and is regarded as an apex institution. No money market can exist without the central bank. The central bank is the lender of the last resort and controller and guardian of the money market.

The member banks may approach the central bank for loans and advances during emergency. It controls and guides the institutions working in the money market.

It raises or reduces the money supply and credit to ensure economic stability in the economy. In other words, it helps in averting the possibilities of inflation and deflation. A pertinent point is that the performance of the central bank depends on the character and composition of the money market.

But the central bank does not enter into direct transactions; it controls the money market through changes in the bank rate and open market operations.

Institution # 3. Acceptance Houses:

The acceptance houses and bills brokers are the main institutions dealing in the bill market. The institution of acceptance houses developed in England where merchant bankers transferred their headquarters to London Money Market in the late 19th and the early 20th century.

They function as intermediaries between importers and exporters, and between lenders and borrowers in the short period. In the London Money Market the acceptance houses performed a very useful role as merchant bankers. These houses specialised in the acceptance of trade bills/commercial bills.

They accepted those bills which were drawn on merchants whose financial standing was not known in order to make the bills negotiable in the London Money Market. In this way, they handled the international transactions without any problem a noteworthy point is that by accepting a trade bill, they guaranteed the payment of the bill on maturity. For this guarantee, these houses charged a commission.

The discounting of such accepted bills was done by another specialised agency known as ‘discount houses’. This institution was an important segment of the London Money Market in the past but now its importance has declined because the commercial banks have undertaken the business of acceptance houses.

Discount and Finance House of India Limited (DFHI) in April 1988.

DFHI is the apex body in the Indian money market and its establishment is a major step towards developing a secondary market for money instruments. DFHI, which commend its operations from April 25, 1988 deals in short-term money market instruments.

As a matter of policy, the aim of the DFHI is to increase the volume of turnover rather than to becomes the repository of money market instruments. The initial paid up capital of DFHI is Rs. 150 crores. Apart from this, it has lines of refinance from RBI and a line of credit from the consortium of public sector banks.

As the apex agency in the Indian money market, the DFHI has been playing an important role ever since its inception. It has been promoting the active participation of the scheduled commercial banks and their subsidiaries, state and urban cooperative banks and all-Indian financial institutions in the money market.

The objective is to ensure that short-term surplus and deficits of these institutions are equilibrated at market-related rates through inter-bank transactions and various money market instruments. In 1990-91 the DFHI opened its branches at Delhi, Calcutta, Madras, Ahmedabad and Bangalore in order to decentralise its operations and provide money market facilities at the major money market centres in the country.

DFHI has been providing secondary market for money instruments and Government of India Treasury Bills.

Institution # 4. Non-banking Financial Intermediaries:

In addition to commercial banks, there are non-banking financial intermediaries who resort to lending and borrowings of short term funds in the money market. In non- banking financial intermediaries we include savings banks, investment houses, insurance companies, building societies, provident funds and other business corporations like chit funds.

Institution # 5. Bill Brokers:

In the developed money market like the London Money Market and the New York Money Market, private companies act as discount houses. The main function of these companies is to discount bills on behalf of others.

Besides these companies, there are bill-brokers who work as intermediaries between the borrowers and lenders by discounting bills of exchange at a small commission. In an under-developed money market, bill brokers are quite important intermediaries.

Measures to Improve Indian Money Market:

The activities of the indigenous banks should be brought under the effective control of the Reserve Bank of India.

(ii) Hundies used in the money market should be standardised and written in the uniform manner in order to develop an all-India money market,

(iii) Banking facilities should be expanded especially in the unbanked and neglected areas,

(iv) Discounting and rediscounting facilities should be expanded in a big way to develop the bill market in the country.

(v) For raising the efficiency of the money market, the number of the clearing houses in the country should be increased and their working improved.

(vi) Adequate and less costly remittance facilities should be provided to the businessmen to increase the mobility of capital.

(vii) Variations in the interest rates should be reduced.

Reserve Bank and Indian Money Market:

The Reserve Bank of Indian has taken various measures to improve the existing defects and to develop a sound money market in the country.

Important among them are:
(i) Through the introduction of two schemes, one in 1952 and the other in 1970, the Reserve Bank has been making efforts to develop a sound bill market and to encourage the use of bills in the banking system. The variety of bills eligible for use has also been enlarged.

(ii) A number of measures have been taken to improve the functioning of the indigenous banks. These measures include- (a) their registration; (b) keeping and auditing of accounts; (e) providing financial accommodation through banks; etc.

(iii) The reserve bank is fully effective in the organised sector of the money market and has evolved procedures and conventions to integrate and coordinate the different components of money market.

Due to the efforts of the Reserve Bank, there is now much more coordination in the organised sector than that in the unorganised sector or that between organised and unorganised sectors.

(iv) The difference between various sections of the money market has been considerably reduced. With the enactment of the Banking Regulation Act, 1949, all banks in the country have been given equal treatment by the Reserve Bank as regards licensing, opening of branches, share capital, the type of loans to be given, etc.

(v) In order to develop a sound money market, the Reserve Bank of Indian has taken measures to amalgamate and merge banks into a few strong banks and given encouragement to the expansion of banking facilities in the country,

(vi) The Reserve Bank of India has been able to reduce considerably the differences in the interest rates between different sections as well as different centres of the money market.

Now the interest rate structure of the country is much more sensitive to changes in the bank rate. Thus, the Reserve Bank of India has succeeded to a great extent in improving the Indian money market and removing some of its serious defects.

But, there are certain difficulties faced by the Reserve Bank in controlling the money market:
(i) The absence of bill market restricts the Reserve Bank’s ability to withdraw surplus funds from the money market by disposing of bills.

(ii) The existence of indigenous bankers is the major hurdle in the way of integrating the money market.

(iii) Inadequate development of call money market is another difficulty in controlling the money market. The banks do not maintain fixed ratios between their cash reserves and deposits and the Reserve Bank has to undertake large open market operations to influence the policy of the banks.

Working Group on Money Market:

In, 1986, the Reserve Bank of India set up a Working Group under the chairmanship of Mr. N. Vaghul to examine the possibilities of enlarging the scope of money market and to recommend specific measures for evolving other suitable money market instruments.

The Working Group submitted its Report in January, 1987. It has made a number of recommendations for activating and developing the Indian money market.

Some Important recommendations are as follows:

(i) Measures should be taken to improve the operation of the call money market,

(ii) Rediscounting market should be developed with a view to facilitating the emergence of genuine bill culture in the country.

(iii) A short-term commercial paper should be introduced.

(iv) An active secondary market for Government paper, especially a ‘182 days Treasury Bill’ Refinance facility, should be developed.

(v) A Finance House should be set up to deal in short-term money market instruments.

(vi) Banks and private non-bank financial institutions should be encouraged to provide factoring services.

(vii) There should be continuing development and refinement of money market instruments, and every new instrument must be approved by the Reserve Bank.

QUESTION BANK

1	List down the sources of liquidity
2	State the objectives of credit control
3	Expand the word RTGS
4	Explain the primary sources of liquidity
5	Examine the aspects of business in liquidity
6	Expand the word CCIL
7	Define liquidity
8	Draw the flow chart for liquidity management
9	Give reasons why credit control is necessary for economic development
10	Differentiate between CRR and SLR

PART B

1	Discuss the different kinds of traders in CCIL
2	Elaborate the settlement process in CCIL
3	Explain the advantages and disadvantages of RTGS
4	Explain the background of RTGS
5	Analyze the sources of liquidity and business health
6	Classify the different types of primary and secondary liquidity
7	Examine the operations of bank rate policy

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UNIT –IV TREASURY MANAGEMENT – SBAA3005

LIQUIDITY PLANNING AND MANAGING CASH ASSETS

Liquidity -planning and control of liquidity cash management systems (both domestic and international), role of working capital management in liquidity

Introduction to Liquidity Management:

Liquidity means an immediate capacity to meet one's financial commitments. The degree of liquidity depends upon the relationship between a company's cash assets plus those assets which can be quickly turned into cash, and the liabilities awaiting payments could be met immediately. The liquidity and the Investments are two corners opposite to each other.

If more earning is required more and more investment is to be made which may result into less degree of liquidity, which may result ,on account of not fulfilling the commitments, into penalties/high rate of interests or other type of losses

In case and also in view of being fully capable of meeting any sort of financial commitments if sufficient liquidity is maintained and the funds are kept idle just to maintain the liquidity and are therefore not invested, this situation may also bring a stage of losses.

If the liquidity is kept at high level under the fear of not being capable of meeting financial requirements in time and the funds available are not invested is sure to count on losses for no returns on the funds available.

In case all the funds available are invested without care for even minimum requirement of liquidity/cash, in case of urgent need the financial commitments made may not meet the dead line and may also result in losses in form of penalty or very high rate of interest.

Management of Liquidity and Cash by Banks:

In case of banks investments are made out of the cash available with it, deposits received from public, companies, institutions and all other types of deposits both demand deposits and term deposits. Additionally a part of profit earned by the bank is also available. The main problem is a fact that every bank is bound by law that the deposits held with it are payable according to the obligation terms to depositors.

Demand deposits should always be kept ready by bank to be able to make immediate payment in case any demand arises. This very fact requires every bank to have sufficient liquidity to meet the contractual obligations as and when they arise without any delay.

Now the opposite or contrary picture also appears to be true because every bank wants to deploy maximum funds in advances and investments in hope of getting maximum possible returns. If all the funds available with any bank are lent or invested, there may be possibility that such funds are not recovered by the bank immediately and the bank is not able to meet its obligations towards its customers.

In order to retain the customer base the banks must adopt a liquidity/investment policy to be able to repay to depositors on demand. Incase bank deploys its maximum funds in loans/investment without caring for the requisite amount of liquidity to able to meet the immediate financial requirements particularly towards demand depositors, it may tarnish its image which can be a fatal event for any bank.

Yes if a bank under the fear of protecting its image to be able to meet all the demand requirements instantly keeps a large portion of its funds in liquid form either in cash with itself or deposits with the Central Bank i.e. RBI without earning sufficient returns or at low level of interest, naturally may face a situation of loss.

investments by banks are its assets and demand and term deposits are liabilities.

Derived from above discussion it may be observed that an investment policy of a Bank should be a balanced approach for managing its assets and liabilities. In case of enhancing or increasing assets without taking into account the proportion of liabilities may bring more profit or income but the bank may likely fail in meeting its obligations.

In reverse position of quantum of liquidity is more than the required limit it may be a cause of losses. It may please be understood that Profitability and Liquidity stand against each other and are required to be managed in a planned manner.

Steps in Cash and Liquidity Management:

For cash and liquidity management by banks following steps are adopted:

1) Cash:

Cash is complete liquidity consisting of cash in hand held by the bank itself or deposited with Central Bank (RBI). The quantum of cash to be kept by a bank is regulated by statutory requirements known as SLR (Statutory liquidity Ratio) and CRR (Current Reserve Ratio). In addition to rules and regulations the practical experience of bankers also play a vital role in deciding the quantum of cash to be kept as cash in hand. Any idle cash kept earns no income.

It is therefore every bank adopts a system of complete cash management and investment management in order to measure and manage the liquidity needs. Measuring liquidity is a ticklish task and mostly gauged by Assets and Liability management system.

(2) Investments:

Investment by banks is largely regulated by specific guidelines as discussed above in portfolio management. Likewise cash management is also subject to SLR and CRR norms.

(3) Loans and Advances:

Commercial Banks function as financial intermediaries. They mobilise funds through various deposit schemes and a large portion of these funds are deployed as bank credit in various sectors of economy. In a way banks also function like trustee of savings and idle funds of the society.

he quality of the credit portfolio decides their efficiency of discharging their duty. In providing loans to different sectors of society is best suited method of managing excess cash by banks as this sector is more secure than making investment in capital market.

(4) Inter Relationship of Cash, Liquidity, Asset and Liability Management:

If the management of cash, liquidity and liabilities are put under one umbrella it would be seen as a process where all of them are inter linked and no single item can be managed separately without having look on other items.

Following brief description about these items may help to understand the position:

A. Asset and Liability Management:

It is a process of effectively managing a bank portfolio mix of assets, liabilities and when applicable off-balance sheet contracts. This process involves two primary financial risks, interest rate and foreign exchange, and directly relates to sound over all liquidity management.

B. Interest Rate Risk:

It is the process of the exposure of a bank's financial condition to adverse movements in interest rates. Changes in interest rates can have significant impact on a banks earnings as well as the underlying economic value of a bank assets, liabilities and off balance sheet items.

C. Liquidity:

The ability to fund all contractual obligations of the bank. Notably lending and investment commitments and deposit withdrawals and liability maturities, in the normal course of business, that is the ability to fund increases in assets and meet obligations as they come due.

D. Liquidity Management:

It is an on-going process to ensure that cash needs can be met at reasonable cost in order for a bank to maintain the required level of reserves with RBI (CRR) and to meet expected and contingent cash needs. Required CRR/SLR with the RBI should not be considered to be a routine source of liquidity.

Good management information systems, analysis of net funding requirements under alternative scenarios, diversification of funding sources, and contingency planning are crucial elements of sound liquidity management.

E. Liquidity Risk:

It is a risk of loss to a bank resulting from its liability to meet its needs for cash or from inadequate liquidity levels, which must be covered by funds, at excess cost.

F. Net Funding Requirements:

The liquid assets necessary to fund a bank cash obligations and commitments going forward determined by performing a cash flow analysis, all cash inflows against all cash outflows, to identify potential net shortfalls.

Principles of Liquidity Management:

The Bank for International settlements' Basel Committee on Banking Supervision in its document No. 69 February, 2000 has provided principles and details of key elements for effective management of liquidity.

Banks should formally adopt and implement these principles for use in overall liquidity management process:

A. Banks must develop a structure for liquidity management:

1. Each bank should have an agreed strategy for day-to-day liquidity management. This strategy should be communicated throughout the organization.

2. A Bank Governing board should approve the strategy and significant policies related to liquidity management. The governing board should also ensure that senior management of the bank takes the steps necessary to monitor and control liquidity risk. The Governing Board should be informed regularly of the liquidity situation of the bank and immediately if there are any material changes in the bank current or prospective liquidity position.

3. Each Bank should have a management structure in place to effectively execute the liquidity strategy. This structure should include the on-going involvement of members of senior management. Senior management must ensure that liquidity is effectively managed, and that appropriate policies and procedures are established to control and limit liquidity risk. Banks should set and regularly review limits on the size of their liquidity positions over particular time horizons.

4. Banks must have adequate information systems for measuring, monitoring, controlling and reporting liquidity risks. Reports should be provided on a timely basis to the banks governing board, senior management and central bank. (In case of India Reserve Bank of India)

B. Banks must measure and monitor net funding requirements:

1. Each bank should establish a process for the ongoing measurement and monitoring of net funding requirements.

2. Banks should analyze liquidity utilizing a variety of scenarios.

3. Banks should frequently review the assumptions utilized in managing liquidity to determine that they continue to be valid.

C. Banks should Manage market access:

Each banks should periodically review its efforts to establish and maintain relationships with liquidity holders, to maintain the diversification of liabilities, and aim to ensure its capacity to sell assets.

D. Banks should have contingency plans:

Banks should have contingency plans in place that address the strategy for handling liquidity crises and which include procedures for making up cash flow shortfalls in emergency situations.

E. Banks should manage their foreign currency Liabilities:

1. Each bank should have measurement, monitoring and control system for its liquidity positions in the major currencies in which it is active. In addition to assessing its aggregate foreign currency liquidity needs and the acceptable mismatch in combination with its domestic currency commitments, a bank should also undertake separate analysis of its strategy for each currency individually.

2. Subject to analysis undertaken, a bank should, where appropriate, set and regularly review limits on the size of its cash flow mismatches over particular time horizons for foreign currencies in aggregate and for each significant individual currency in which the bank operates.

F. Each bank must have an adequate system for internal controls over its liquidity risk management process. A fundamental component of the internal control system involves regular independent reviews and evaluations of the effectiveness or enhancements to internal controls are made.

G. Each bank should have in place a mechanism for ensuring that there is an adequate level of disclosure of information about the bank in order to manage public perception of the organization and its soundness.

WORKING CAPITAL MANAGEMENT

INTRODUCTION

It has been often observed that the shortage of working capital leads to the failure of a business. The proper management of working capital may bring about the success of a business firm. The management of working capital includes the management of current assets and current liabilities. A number of companies for the past few years have been finding it difficult to solve the increasing problems of adopting seriously the management of working capital.

A firm may exist without making profits but cannot survive without liquidity. The function of working capital management in an organization is similar that of the heart in a human body. Also it is an important function of financial management. The financial manager must determine the satisfactory level of working capital funds and also the optimum mix of current assets and current liabilities. He must ensure that the appropriate sources of funds are used to finance working capital and should also see that short term obligation of the business are met well in time.

DEFINITION OF WORKING CAPITAL

"Working Capital is the excess of C.A. over current liabilities."

CONCEPT OF WORKING CAPITAL MANAGEMENT

There are two concepts of working capital viz .quantitative and qualitative. Some people also define the two concepts as gross concept and net concept.

According to quantitative concept, the amount of working capital refers to 'total of current assets'. Current assets are considered to be gross working capital in this concept.

The qualitative concept gives an idea regarding source of financing capital. According to qualitative concept the amount of working capital refers to "excess of current assets over current liabilities." L.J. Guthmann defined working capital as "the portion of a firm's current assets which are financed from long–term funds." The excess of current assets over current liabilities is termed as 'Net working capital'. In this concept "Net working capital" represents the amount of current assets which would remain if all current liabilities were paid.

Both the concepts of working capital have their own points of importance. "If the objectives is to measure the size and extent to which current assets are being used, 'Gross concept' is useful; whereas in evaluating the liquidity position of an undertaking 'Net concept' becomes pertinent and preferable. It is necessary to understand the meaning of current assets and current liabilities for learning the meaning of working capital, which is explained below.

Current assets – It is rightly observed that “Current assets have a short life span. These type of assets are engaged in current operation of a business and normally used for short– term operations of the firm during an accounting period i.e. within twelve months. The two important characteristics of such assets are, (i) short life span, and (ii) swift transformation into other form of assets. Cash balance may be held idle for a week or two; account receivable may have a life span of 30 to 60 days, and inventories may be held for 30 to 100 days.

Current liabilities – The firm creates a Current Liability towards creditors (sellers) from whom it has purchased raw materials on credit. This liability is also known as accounts payable and shown in the balance sheet till the payment has been made to the creditors. The claims or obligations which are normally expected to mature for payment within an accounting cycle (1 year) are known as current liabilities. These can be defined as “those liabilities where liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets, or the creation of other current assets, or the creation of other current liabilities.”

TYPES OF WORKING CAPITAL

According to the needs of business, the working capital may be classified into following two basis:

1) On the basis of periodicity

2) On the basis of concept

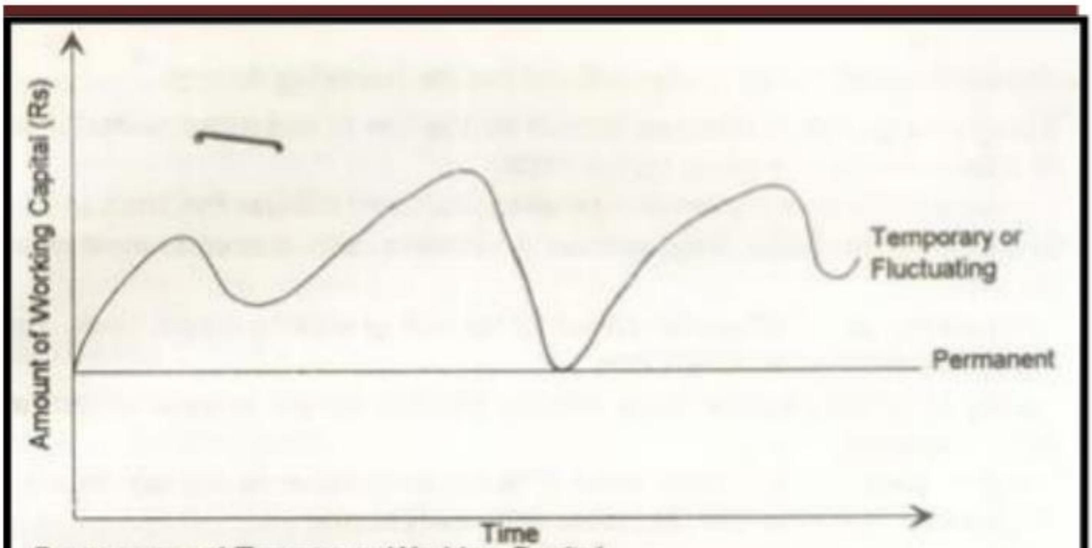
On the basis of periodicity:

The requirements of working capital are continuous. More working capital is required in a particular season or the peck period of business activity. On the basis of periodicity working capital can be divided under two categories as under:

1. Permanent working capital

2. Variable working capital

(a) Permanent working capital: This type of working capital is known as Fixed Working Capital. Permanent working capital means the part of working capital which is permanently locked up in the current assets to carry out the business smoothly. The minimum amount of current assets which is required to conduct the business smoothly during the year is called permanent working capital.



Permnent and Temporary Working Capital

Depending on the change in production and sales, the need of working capital, over and above the permanent working capital, will fluctuate. It is shown in below figure that permanent working capital is stable over time, while temporary working capital is fluctuating-sometimes increasing and sometimes decreasing. However, the permanent working capital line need not be horizontal if the firm's requirement for permanent capital is increasing or decreasing over period. For a growing firm, the difference between permanent and temporary working capital can be depicted the figure as under.

For example, investments required to maintain the minimum stock of raw materials or to cash balance. The amount of permanent working capital depends upon the size and growth of company. Fixed working capital can further be divided into two categories as under:

1. Regular Working capital:

Minimum amount of working capital required to keep the primary circulation. Some amount of cash is necessary for the payment of wages, salaries etc.

2. Reserve Margin Working capital:

Additional working capital may also be required for contingencies that may arise any time. The reserve working capital is the excess of capital over the needs of the regular working capital is kept aside as reserve for contingencies, such as strike, business depression etc.

(b) Variable or Temporary Working Capital:

The term variable working capital refers that the level of working capital is temporary and fluctuating. Variable working capital may change from one assets to another and changes with the increase or decrease in the volume of business.

The variable working capital may also be subdivided into following two sub-groups.

1. **Seasonal Variable Working capital:**

Seasonal working capital is the additional amount which is required during the active business seasons of the year. Raw materials like raw-cotton or jute or sugarcane are purchased in particular season. The industry has to borrow funds for short period. It is particularly suited to a business of a seasonal nature. In short, seasonal working capital is required to meet the seasonal liquidity of the business.

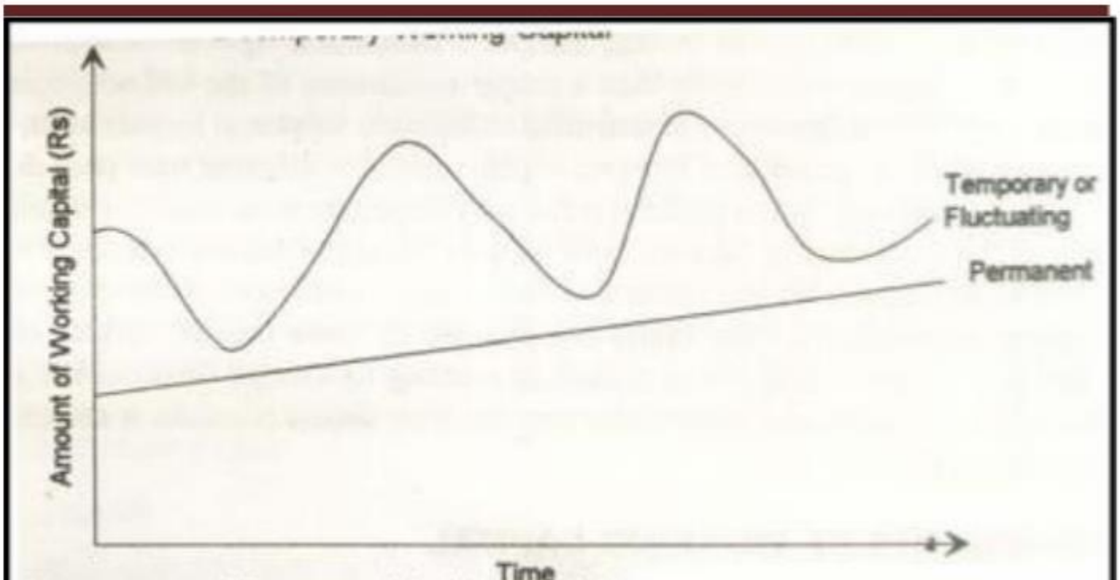
2. Special variable working capital:

Additional working capital may also be needed to provide additional current assets to meet the unexpected events or special operations such as extensive marketing campaigns or carrying of special job etc.

Difference Between Permanent and Variable Working Capital:

The distinction between permanent or fixed working capital and variable working capital or temporary working capital is of great importance in operating cycle and raising the funds. However, there is always a minimum level of current assets which is continuously required by the firm to carry on its business operations. This minimum level of current assets is referred to as permanent or fixed working capital and is permanent in the same way as the firm’s fixed asset. Depending on the change in production and sales, the need of working capital, over and above the permanent working capital, will fluctuate.

It is shown in below figure that permanent working capital is stable over time, while temporary working capital is fluctuating-sometimes increasing and sometimes decreasing. However, the permanent working capital line need not be horizontal if the firm's requirement for permanent capital is increasing or decreasing over period. For a growing firm, the difference between permanent and temporary working capital can be depicted the figure as under.



Permnent and Temporary Working Capital

2) On the basis of concept:

on the basis of concept working capital is divided into two categories as under:

(A) Gross Working Capital:

Gross working capital refers to total investment in current assets. The current assets employed in business give the idea about the utilization of working capital and idea about the economic position of the company. Gross working capital concepts is popular and acceptable concept in the field of finance.

(B) **Net Working Capital:**

Net working capital means current assets minus current liabilities. The difference between current assets and current liabilities is called the net working capital. If the net working capital is positive, business is able to meet its current liabilities. Net working capital concept provides the measurement for determining the creditworthiness of company.

FACTORS DETERMINING WORKING CAPITAL

The following factor determine the amount of working capital

1. **Nature of Companies:**

The composition of an asset is a function of the size of a business and the companies to which it belongs. Small companies have smaller proportions of cash, receivables and inventory than large corporation. This difference becomes more marked in large corporations. A public utility, for example, mostly employs fixed assets in its operations, while a merchandising department depends generally on inventory and receivable. Needs for working capital are thus determined by the nature of an enterprise.

2. **Demand of Creditors:**

Creditors are interested in the security of loans. They want their obligations to be sufficiently covered. They want the amount of security in assets which are greater than the liability.

3. **Cash Requirements:**

Cash is one of the current assets which are essential for the successful operations of the production cycle. A minimum level of cash is always required to keep the operations going. Adequate cash is also required to maintain good credit relation.

4. **Nature and Size of Business:**

The working capital requirements of a firm are basically influenced by the nature of its business. Trading and financial firms have a very less investment in fixed assets, but require a large sum of money to be invested in working capital. Retail stores, for example, must carry large stocks of a variety of goods to satisfy the varied and continues demand of their customers. Some manufacturing business, such as tobacco manufacturing and construction firms also have to invest substantially in working capital and a nominal amount in the fixed assets.

5. **Time:**

The level of working capital depends upon the time required to manufacturing goods. If the time is longer, the size of working capital is great. Moreover, the amount of working capital depends upon inventory turnover and the unit cost of the goods that are sold. The greater this cost, the bigger is the amount of working capital.

6. **Volume of Sales:**

This is the most important factor affecting the size and components of working capital. A firm maintains current assets because they are needed to support the operational activities which result in sales. They volume of sales and the size of the working capital are directly related to each other. As the volume of sales increase, there is an increase in the investment of working capital-in the cost of operations, in inventories and receivables.

7. **Terms of Purchases and Sales:**

If the credit terms of purchases are more favourable and those of sales liberal, less cash will be invested in inventory. With more favourable credit terms, working capital requirements can be reduced. A firm gets more time for payment to creditors or suppliers. A firm which enjoys greater credit with banks needs less working capital.

8. **Business Cycle:**

Business expands during periods of prosperity and declines during the period of depression. Consequently, more working capital required during periods of prosperity and less during the periods of depression.

9. **Production Cycle:**

The time taken to convert raw materials into finished products is referred to as the production cycle or operating cycle. The longer the production cycle, the greater is the requirements of the working capital. An utmost care should be taken to shorten the period of the production cycle in order to minimize working capital requirements.

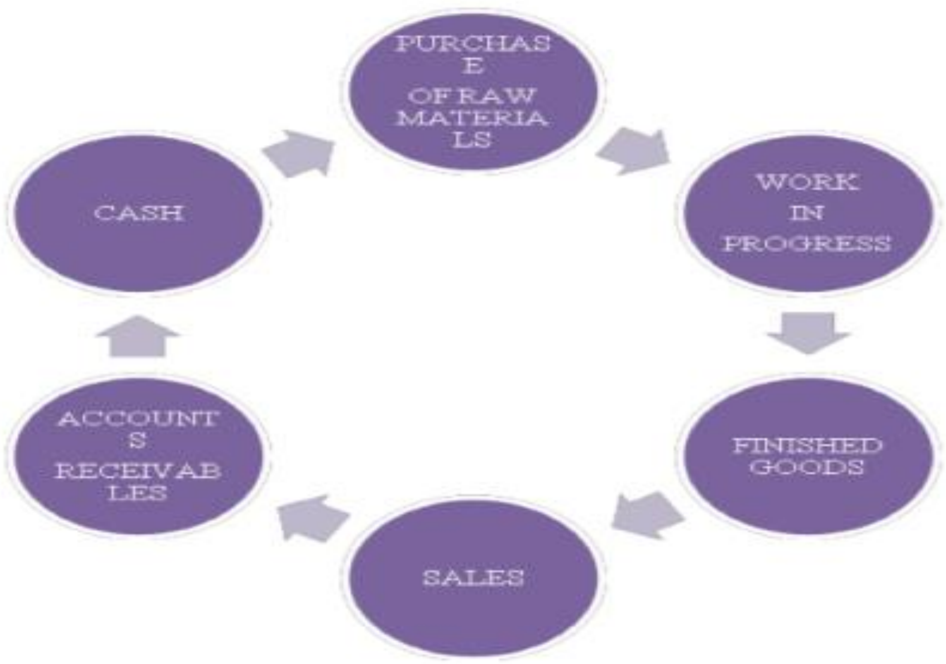
10. **Liquidity and Profitability:**

If a firm desires to take a greater risk for bigger gains or losses, it reduces the size of its working capital in relation to its sales. If it is interested in improving its liquidity, it increase the level of its working capital. However, this policy is likely to result in a reduction of the sales volume, and therefore, of profitability. A firm, therefore, should choose between liquidity and profitability and decide about its working capital requirements accordingly.

11. **Seasonal Fluctuations:**

Seasonal fluctuations in sales affect the level of variable working capital. Often, the demand for products may be of a seasonal nature. Yet inventories have got to be purchased during certain seasons only. The size of the working capital in one period may, therefore, be bigger than that in another.

OPERATING CYCLE

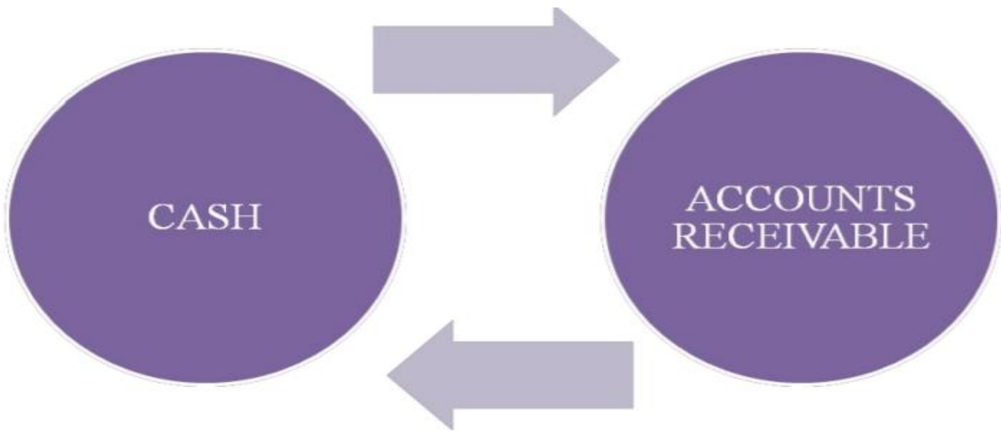


The duration of time required to complete the sequence of events right from purchase of raw material / goods for cash to the realization of sales in cash is called the operating cycle, working capital cycle or cash cycle.

Operating Cycle of Manufacturing Cycle:
The above operating cycle in figure relates to a manufacturing firm where cash is needs to purchase raw materials and convert raw materials into work-in-process is converted into finished goods. Finished goods will be sold for cash or credit and ultimately debtors will be realized.

Operating Cycle of Non-Manufacturing Firm
The non-manufacturing firms, such as whole sellers and retailers, will not have the manufacturing phase; they will have rather direct conversion of cash into finished stock, into accounts receivables and then into cash. The operating cycle of a non-manufacturing firm is shown as

Operating Cycle of Service and Financial Firms
In addition to this, some service and financial concerns may not have any inventory at all. Such firm have the shorter operating cycle.



The firm would make just enough investment in current assets, if it were possible to estimate working capital needs exactly. Under perfect certainty, the current assets holdings would be at the minimum level. A ledger investment in current assets under certainty would mean a low rate or return investment for the firm, as excess investment in current assets will not earn enough return. A smaller investment in current assets, on the other hand, would mean interrupted production and sales, because of frequent stock-outs and inability to creditor in time to restrictive credit policy.

As it is not possible to estimate working needs accurately, the firm must decide about the levels of current assets to be carried. The current assets holdings of the firm will depend upon its working capital policy. It may follow a conservative or an aggressive policy. These polices have different risk-return implications.

A conservative policy means lower return and risk, while an aggressive policy produces higher return and risk.

The two important aims of the working capital management are: profitability and solvency.

Solvency, used in the technical sense, refers to the firm's continuous ability to meet maturing obligations. Lenders and creditors expected prompt settlement of their claims as and when due. To ensure solvency, the firm maintains a relatively large investment in current assets holdings. If the firm maintains a relatively large investment in current assets, it will have no difficulty in paying the claims of the creditors when they become due and will be able to fill all sales orders and ensure smooth production. Thus, a liquid firm has less risk of insolvency; that is, it will hardly experiences a cash shortage or stock-outs.

However, there is a cost associated with maintaining a sound liquidity position.

A considerable amount of the firm's funds will be tied up in current assets. And to the extent this investment is idle, the firm's profitability will suffer.

To have high profitability, the firm may sacrifice solvency and maintain a relatively low level of current assets. When the firm does so, its profitability will improve as less funds are tied up in idle current assets, but its solvency would be threatened and would be exposed to greater risk of cash shortage and stock-outs.

Therefore, the firm should balance the profitability solvency tangle by minimizing the total cost of liquidity and cost of illiquidity.

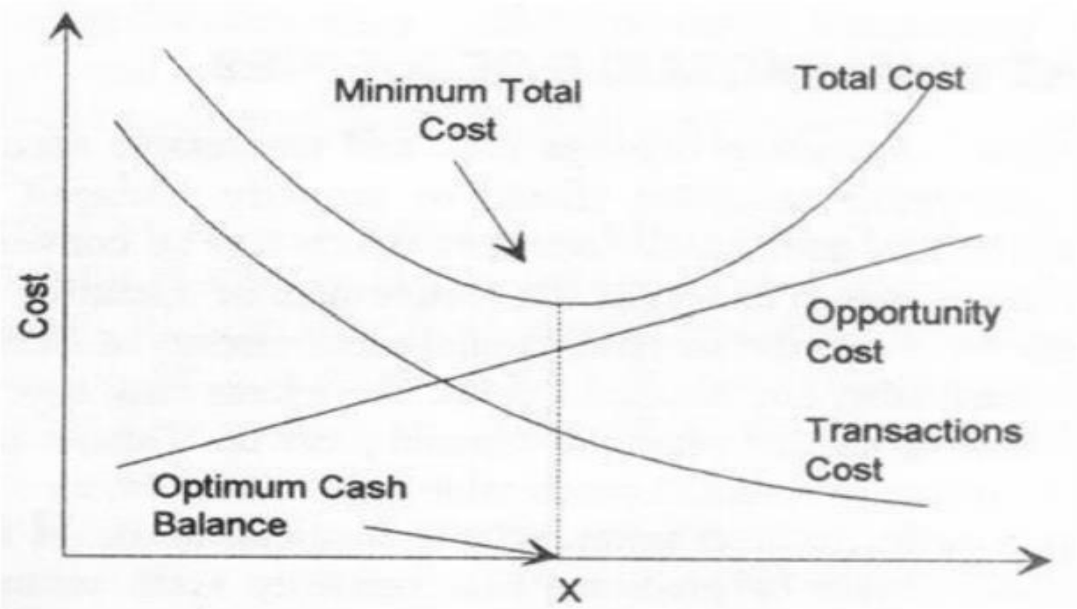
The Cost Trade-off:

A different way of looking into the risk-return trade of is in terms of the cost of maintaining a particular level of current assets. There are two different kinds of costs involved.

First there is the cost of liquidity. If the firm carries too much liquidity, the firm's rate of return will be low. Funds tied up in idle cash and excess inventory earn nothing, and receivables levels that are too large also reduce the firm's profitability. Thus, the cost of liquidity increases with the level of current assets.

There is the cost of liquidity, which is the cost of having too little invested in current assets. If the firm carries too little cash, it may not be able to pay bills promptly at they mature. This may force the firm to borrows at high rates of interest. This will also adversely affect the credit-worthiness of the firm and it will face difficulties in obtaining funds in future. This all may force the firm into insolvency.

If the firm's inventory level too low, sales may be lost and customers may shift to competitors. Also, low level of book debts may be due to tight credit policy, which would impair sales further. Thus, the low level of current assets involves cost which increases as this level falls.



QUESTION BANK

PART A

1	Mention two important characteristics of current assets
2	Why working capital is important to company?
3	Infer the concept of working capital management
4	List out the types of working capital
5	Explain the Grass working capital
6	Define liquidity management
7	Draw the operating cycle
8	Identify four important factors affecting working capital
9	Interpret permanent working capital with the help of graph
10	Classify the industrial Securities Market

PART B

1	Determine the factors affecting working capital management
2	Explain how management of liquidity and cash in banks
3	Evaluate the principles of cash and liquidity management in general
4	Classify the working capital management according to the needs of business
5	Compare liquidity and profitability based on the risk-return tangle
6	Draw operation cycle and explain each step to complete the cash cycle

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SCHOOL OF MANAGEMENT STUDIES

UNIT – V – TREASURY MANAGEMENT – SBAA3005

TREASURY RISK MANAGEMENT

Treasury risks-functions the market risk -role of asset liability management (ALM)-interest risk

All the organizations aim to run risk free operations, however the truth is that no matter how careful they are there is always a danger of exposure to unexpected and unplanned for threats. Implementing a risk management policy throughout an organization is the best way of identifying and managing these threats before they become costly problems.

Embedding such a policy within daily operations also helps with making well informed choices as decision-makers better understand and evaluate the wider impact their actions have

FRAMEWORK

A good risk management policy builds a sound framework for (i) Risk assessment and identification, (ii) Risk ranking, (iii) Action Plan, (iv) Assessment and review, (v) Compliance and (vi) Feedback and Improvement

So far, we have been considering risk management from the standpoint of the corporate treasurer, and the concept of financial risk that was used was that which the treasurer has responsibility for managing. In the 1990s the idea of managing risk throughout the organization was relatively new and most companies focused on specific, mainly financial and insurable risks.

Companies have come to pay particular attention to the management of risks throughout their organization due to a combination of: legal and compliance requirements on companies; the increasing need to communicate a company‘s risk management processes to various stakeholders; and a recognition of the benefits that an active, and corporate-wide, risk management programme can have on achieving the strategic aims of the organization and building shareholder value.

An assessment of the system of internal control is as relevant for the smaller listed company as it is for larger ones, since the risks facing such companies are generally increasing. Risk management is essential for reducing the probability that corporate objectives will be jeopardized by unforeseen events.

It involves proactively managing those risk exposures that can affect everything the company is trying to achieve. Among the steps involved in implementing and maintaining an effective risk management system are:

Identifying risks ¬ Ranking those risks ¬ Agreeing control strategies and risk management policy ¬ Taking action ¬ Regular monitoring ¬ Regular reporting and review of risk and control.

Identifying risks Risks are often classified into:

business, operational, financial and compliance risks.

Business risks

These arise from being in a particular industry and geographical area, and from the strategy the company has chosen to undertake. The risks can range from wrong business strategy, bad or failed acquisitions and inability to obtain further capital, to competitive pressures on price and market share, political risks or the decline of an industry sector.

Operational risks

These relate to the various administrative and operational procedures that the business uses to implement its strategy. They may include skills shortages, stock-out of raw materials, physical disasters, loss of physical assets, quality problems, loss of key contracts or poor brand management.

Financial risks

In addition to those already discussed in relation to treasury risk management, financial risks can also comprise: going concern problems, overtrading, misuse of financial resources, and occurrence of fraud, misstatement risk relating to published financial information, unrecorded liabilities and penetration of IT systems by hackers. Compliance risks These derive from the necessity to ensure compliance with those laws and regulations that, if infringed, can damage a company. They can include breach of listing rules, breach of Companies Act requirements, VAT problems, tax penalties, health and safety risks and environmental problems.

In Identifying risks, it is important to avoid selecting them from some form of generic list. The risks need to be specific to the industry sector and specific circumstances of the company. It is also useful to relate them to the likely obstacles facing the critical success factors that underpin the achievement of the company‘s objectives.

Quantifying and ranking risks

As with the measurement of treasury-related financial risks, the company is faced with the problem of quantifying or measuring the identified risks. While many treasury financial risks relate to movement in market prices and thus the possible impact of adverse price movements within certain ranges can be calculated, many of the identified enterprise risks are incapable of such direct measurement. Most organizations therefore rank such risks according to: ¬ High likelihood of occurrence–high impact: Consider for immediate action. ¬ Low likelihood of occurrence–high impact: Consider for action and have a contingency plan. ¬ High likelihood of occurrence–low impact: Consider action. ¬ Low likelihood of occurrence–low impact: Keep under periodic review. The impacts should be considered not merely in financial terms, but more importantly in terms of their potential effect on the achievement of the company‘s objectives.

Economic risks

Economic risks may be particularly important in regard to exchange rates, economic volatility, industry structure and international competitiveness.

Exchange rate risks In recent years, the risk of foreign exchange rate movements has become a paramount consideration, as has the risk that a government may simply lack the economic capacity to repay its loans.

Country Risk Management Country Risk refers to the possibility that economic and political conditions, or an event in a foreign country, could adversely impact an institution‘s exposure in that country. The institutions engaged in international lending or having other cross border exposure are exposed to country risk, in addition to the customary credit risk.

Types of Country risk

Risk Country risk can be broadly classified into sovereign, transfer/convertibility and contagion risk.

Sovereign risk denotes a foreign government‘s capacity and willingness to repay its direct and indirect (i.e. guaranteed) foreign currency obligations.

Transfer/Convertibility risk arises if changes in government policies, or any event, result in a barrier to free conversion or movement of foreign exchange across countries. Under such conditions, a borrower may not be able to secure foreign exchange to service its external obligations.

Contagion risk refers to the possibility that any adverse economic or political factor in one country has an impact on other countries in that region.

Liquidity risk is defined as the possibility that the bank would not be able meet the commitments in the form of cash outflows with the available cash inflows. This risk arises as a result of inadequacy of cash available and near cash item including drawing rights to meet current and potential liabilities.

Liquidity risk is categorized into two types;

Trading Liquidity Risk

Trading liquidity risk arises as a result of illiquidity of securities in the trading portfolio of the bank. Trading liquidity risk is common to all the institutions having exposure to same set of securities which may turn illiquid or less liquid. Liquidity or otherwise can be measured security-wise on the basis of statistics generated from market trades such as volume traded, no. of trades, percentage of volume traded to the total outstanding volume of a security etc. on a day-to-day basis.

This can be used to ascertain the extent of liquid securities in the trading portfolio to the total size of the portfolio. As liquidity and return are negatively related, i.e., higher returns can be expected by accepting an illiquid security over a liquid one, strict policy measures to contain the extent of illiquidity in the portfolio need to be set up and monitored on a frequent basis.

In fact, one of the important considerations for the inclusion of securities in the trading portfolio is on the basis of its liquidity status. As the trading portfolio is short-term in nature with the regulator-constrained maximum holding period of 90 days, it is logical to include only those securities which are not only liquid at the time of creation, but are expected to be liquid over the holding period of the portfolio

Funding Liquidity Risk.

Funding liquidity risk that arises as a result of the cash flow mismatch pointed out above is very much an outcome of difference in balance sheet strategies pursued by different institutions in the same industry.

It is perfectly possible for a few banks to have excess funding liquidity while other banks may suffer shortage of liquidity. Of course, the presence of surplus and deficit is the precondition for an active money market to exist to move the funds from surplus segment to deficit segment in the form of lending and borrowing.

An example of funding liquidity risk at this stage is appropriate. Let us assume a single asset and a single liability in the balance sheet of a bank for the sake of simplicity.

The asset is a three-year loan and the liability is a six-month term deposit. The bank would face funding liquidity risk six-months from today when the six-month term deposit matures for payment since the liability in the form of six-month deposit would require a cash out flow while the asset would not return any cash flow (ignoring possible interest flows from the loan) six-months from today

This is typically the funding mismatch that the bank has to manage either by rolling-over the maturing deposit or acquiring a fresh deposit or sourcing money in any other way suitable for the bank.

Quantifying and ranking risks

As with the measurement of treasury-related financial risks, the company is faced with the problem of quantifying or measuring the identified risks. While many treasury financial risks relate to movement in market prices and thus the possible impact of adverse price movements within certain ranges can be calculated, many of the identified enterprise risks are incapable of such direct measurement. Most organizations therefore rank such risks according to: ¬ High likelihood of occurrence–high impact: Consider for immediate action. ¬ Low likelihood of occurrence–high impact: Consider for action and have a contingency plan. ¬ High likelihood of occurrence–low impact: Consider action. ¬ Low likelihood of occurrence–low impact: Keep under periodic review. The impacts should be considered not merely in financial terms, but more importantly in terms of their potential effect on the achievement of the company‘s objectives.

Tools of Liquidity Risk Measurement:

There are two approaches to measure liquidity risk at balance sheet level.

They are:

1. Liquidity Gap Analysis, and

2. Structural Balance Sheet Ratios

Liquidity Gap Analysis

Liquidity gap report which is useful for measuring short-term liquidity risk is prepared by placing assets and liabilities into various time buckets on the basis of timing of cash inflows from the assets and the timing of cash outflows from the liabilities. The cash flows from assets and liabilities include both principal and interest cash flows. For the purpose of regulatory reporting of liquidity mismatches, the RBI has prescribed a liquidity gap report with the following time buckets:

1 – 14 days 15 – 28 days 29 – 3 months 3 – 6 months 6 – 12 months 1 – 3 years 3 – 5 years Above 5 years

Structural Balance Sheet Ratios

A part from the gap analyses, structural balance sheet ratios are also used to assess the liquidity position taking into consideration the structure of the assets and liabilities in the balance sheet. A few of them are indicated below: l Call borrowing to total borrowing: Extent of dependence on call money market for funding the assets

Purchased funds to liquid assets: As purchased funds are volatile to market conditions, the extent to which they are matched by liquid assets. l Core Deposits to Core Assets: Extent to which retail deposits are used to fund core assets such as Loans and approved securities. l Liquid assets to total assets: To ascertain asset liquidity. l Liquid assets to deposits: Extent of liquid assets available to meet deposit outflows in an abnormal environment. l Liquid securities to total investments: To estimate the extent of liquid securities in the investment portfolio which is otherwise illiquid.

Interest Rate Risk (IRR) arises as a result of change in interest rates on rate earning assets and rate paying liabilities of a bank. The scope of IRR management is to cover the measurement, control and management of IRR in the banking book. As indicated elsewhere, with the deregulation of interest rates, the volatility of the interest rates have risen considerably. This has transformed the business of banking forever in our country from a mere volume driven business (as volume would take care of profitability in a regulated environment) to a business of careful planning and to achieve targets of profitability by choosing the appropriate assets and liabilities to be employed.

Approaches to IRR The two basic approaches to IRR are:

1. Earnings Approach, and

2. Economic Value Approach

Earnings Approach to IRR

The earnings approach is otherwise known as accounting approach. The main focus of the approach is on the impact of interest rate changes on assets and liabilities on the Net Interest Income (NII).

Economic Value Approach of IRR Earnings approach of IRR has a short-term focus and covers only an initial part of the life of assets & liabilities in the balance sheet. It does not cover the long-term impact of the exposure to the changes in interest rates. The Economic Value Approach, which is known by many names such as Market Value Approach, Net Portfolio Value Approach etc. considers the long-term impact of interest rate changes by covering the entire life of all the assets and liabilities

MARKET RISK

Market Risk arises as a result of volatility in price of assets (and liabilities) due to changes in: l Interest Rates l Currency Prices l Commodity Prices, and l Equity Prices

Price risk of the assets in the trading book is the prime decision point in market risk management. Of the above, the most significant exposure is to the interest rates in the form of a sizeable portfolio of Government and other securities. Hence the major concentration would be on interest rates.

Tools for Measurement of Market Risk Measures for market risk are broadly categorized as under:

l Factor Sensitivity Measures l Volatility Based Measures

Factor Sensitivity Measures:

Factor sensitivity measures assess the impact of change in the major factors (which determine the market value of the positions) on the market value of the portfolio. The most prominent factor sensitivity measure is the modified duration explained in the previous section.

Volatility Based Measures: While factor sensitivity measures are still very popular in our country and are practiced widely, in the recent past, volatility based measure popularly known as Value-at-Risk (VAR) has gained a lot of prominence among the trading and risk management communities

ASSET LIABILITY MANAGEMENT

As indicated in the previous chapter on risk management, risks can have an impact on either the accounting earnings which are periodically reported and or Value of equity **which is relatively a new dimension.**

The Asset Liability Management (ALM) function involves planning, directing, and controlling the flow, level, mix and rates on the bank assets and liabilities. The ALM responsibilities are fully aligned to the overall objectives at the bank level. There was no need for an elaborate ALM function till the interest rates were guided by the regulator and the business of banking was purely volume driven. Deregulation of interest rates, interest rate volatility and increasing competition in the financial market place has made the ALM function a significantly important function in today's environment.

Categorisation of Bank Balance Sheet

At this juncture, it is important to understand how the assets & liabilities in the balance sheet of a bank are classified into Banking Book and Trading Book. The following are the points distinguishing one from the other:

Held-till-maturity vs. Short-term holding period

The intention of the bank in case of banking books is to hold the assets and liabilities till maturity whereas in case of trading book the holding period is extremely short and may vary between a few hours (or minutes in some cases) to a maximum of 90 days (as per the RBI's stipulation of holding period)

Accrual Income vs. Price Change

Asset Liability Management The assets & liabilities in the banking book accrue income and expenses respectively over time. The target variable in case of the banking book is the net accrual income. In case of the trading book, price appreciation (or depreciation) due to fluctuation in market price is the main target variable as the holding period is very short

Historical cost vs. Mark-to-market Value The assets & liabilities in the banking book are valued at historical cost. Change in the values of assets and liabilities are not recognized in the P&L account. The norm in case of trading book is periodic valuation (mark-to-market) and reflection of the market value of the assets and liabilities in the balance sheet. Any appreciation or depreciation with reference to the value prior to valuation would pass through the P&L account as profit or loss.

Scope of ALM

ALM is a part of overall risk management of a bank which addresses the following

risks:

l Liquidity Risk: Risk arising out of unexpected fluctuation in cash flows from

the assets and liabilities – both in banking and trading books.

l Interest Rate Risk: Risk arising out of fluctuations in the interest rates on assets

and liabilities in the banking book.

l **Market Risk**: Risk of price fluctuations due to market factors causing changes

in the value of the trading portfolio.

NATURE OF ALM RISKS AND ITS ORGANISATION

The nature of risks addressed by ALM is the ones which need to be and are centralized at the bank treasury level for efficient management. In other words, interest rate and liquidity risks may be created by branches of a bank in the process of their intermediation between depositors and borrowers, but these risks need to be pooled at the highest level and managed.

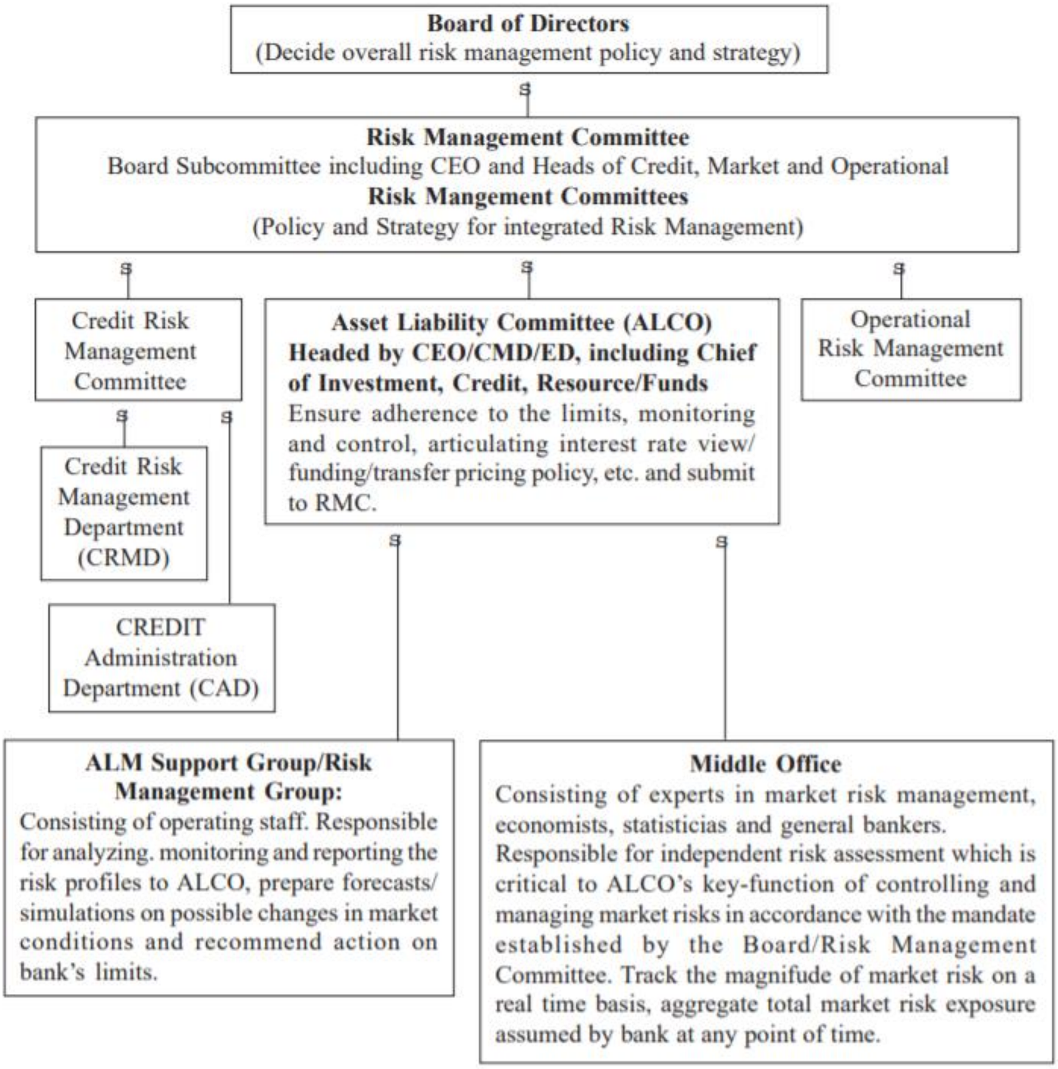
This is because these risks arising at a branch is not relevant as they need to be offset by exactly opposite positions in some other branch of the same bank. Hence, what is significant to be managed is the net position arising at the bank treasury level rather than individual positions arising at a number of branches. In other words, branch heads do not have anything to with the management of interest rate and liquidity risks at their own level.

Their job at present is restricted to providing accurate and timely data for the assessment of the risks which are centralized. By its very nature, as the trading portfolio is managed at the treasury level, no further centralization is warranted.

Like in many countries, the RBI has entrusted the job of ALM in each bank to the Asset-Liability Committee (ALCO) to be set up in each bank. ALCO, consisting of senior executives of a bank, is the apex decision making unit responsible for managing all the three risks that come under the purview of ALM in an integrated manner.

As per RBI requirements, the ALCO is required to meet periodically to assess the bank's position in terms of the risks and provide strategic guidance to achieve the overall targets and objectives set. With the above introduction, the concentration of the following section is on the three risks that the ALCO is supposed to address.

The typical organizational structure for Risk Management with specific reference to ALM defined by the RBI is as under:



BALANCE SHEET STRUCTURE: IMPLICATIONS FOR ALM

Balance Sheet Structure: Assets l Advances - A significant portion linked to Prime Lending Rate (PLR) in the form of CC/OD, Demand loan & term loans - PLR linked loans – Absence of reset dates (future dates on which the rates would be reset is unknown)

Pattern of repayment based on behavioural studies - Unavailed portion of CC/OD – Uncertainty of utilisation - Borrower Option to prepay in case of Fixed Rate Term loans

Investments - Major portion Fixed Rate - Medium to long duration portfolio - Illiquidity of a significant portion of the portfolio – no or very low flexibility for reshuffling (altering the structure)

Balance Sheet Structure: Liabilities l Deposits – Savings and Current - Non-maturity – No date of maturity - High volatility of balances in case of current account - Customer Option to freely introduce or withdraw money at any time - Administered interest rates unrelated to market interest rates l Term Deposits: Cumulative, Non-Cumulative and Recurring - Overwhelming majority in Fixed Rates - Customer Option (put option valuable when interest rates go above the contractual fixed rate) - The reinvestment risk in case of cumulative deposits - Uncertain instalment payments in case of recurring deposits - Floating Rate (a recent development)

Borrowings - Fixed or Floating Rate - Various tenor - Usually no options, hence no uncertainty about the term

It can be understood from the above structure that a significant portion of liabilities in the form of term deposits have a fixed-rate meaning that the rates would remain unchanged till the maturity or till the deposit remains with the bank. 'Borrowings' which is a smaller portfolio in the liabilities are at market related rates.

QUESTION BANK

PART A

1	List down the types of risk
2	State the frame work of risk management policy
3	How to do Quantifying and ranking risks
4	How Economic value approach can improve the company's image
5	Categorize different types of Bank Balance Sheet
6	Illustrate and explain market risk
7	Identify the Scope of ALM
8	Expand the term ALCO
9	Explain the Types of country risk
10	Mention the importance Trading Liquidity Risk

PART B

1	Elaborate the Tools of Liquidity Risk Measurement:
2	Discuss the tools for measurement of market risk
3	Summarize the nature of ALM risks and its organisation
4	Analyze the balance sheet structure and implications for ALM
5	Classify the types of risk in treasury management
6	Explain the two types of liquidity risk

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