CH - 3
The Concept And Measurement Of Liquidity
INDEX

3.1 INTRODUCTION :

3.2 CONCEPT OF LIQUIDITY :

3.3 LIQUIDITY VS PROFITABILITY IN WORKING CAPITAL DECISION :

3.4 MEASUREMENT OF LIQUIDITY :

3.5 DETERMINANTS OF LIQUIDITY :

3.6 EFFECTS OF LIQUIDITY :

3.7 ANALYSIS OF LIQUIDITY :

Page No. 101
3.1 INTRODUCTION:

As per the accountant, working capital is a liquidity concept. Whether the firm will be able to pay off its debts using its cash flows is more important than what level of current or non-current assets it maintains. Viewed thus, the difference between current assets and current liabilities is more important than the size of investment either in current assets or current liabilities. The efficiency of working capital management finally depends upon the liquidity that is maintained by the firm. Through several other factors may decide the liquidity of a firm, changes in cash flows, consequent upon the change in working capital items are highly pertinent. If cash flows were certain, less working capital would be required, usually the problem stems from the difficulty in forecasting inflows, vis-à-vis outflows.

3.2 CONCEPT OF LIQUIDITY:

By the term ‘liquidity’ is meant the debt-repaying capacity of an undertaking. It refers to the firm’s ability to meet the claims of suppliers of goods, services and capital. According to Archer and D’Ambrosio, liquidity means cash and cash availability, and it is from current operations and previous accumulations that cash is available, to take care of the claims of both the short-term suppliers of capital and the long-term ones. It has two dimensions; the short-term and the long-term liquidity.
Short-term liquidity implies the capacity of the undertaking, to repay the short-term debt which means the same as the ability of the firm in meeting the currently maturing obligations from out of the current assets. The purpose of the short-term analysis is to derive a picture of the capacity of the firm to meet its short-term obligations out of its short-term resources, that is, to estimate the risk of supplying short-term capital to the firm.

Analysis of the firm’s long-term position has for its rationale the delineation of the ability of a firm to meet its long-term financial obligations such as interest and dividend payment and repayment of principal. Long-term liquidity refers to the ability of the firm to retire long-term debt and interest and other long-run obligations. When relationships are established along these lines, it is assumed that in the long-run assets could be liquidated to meet the financial claims of the firm. Quite often the expression ‘liquidity’ is used to mean short-term liquidity of the companies.

In the present study, liquidity is taken to mean the short-term liquidity which refers to the ability of the undertakings to pay off current liabilities. This is chosen because the study relates to the management of short-term assets and liabilities. In other words, the long-run success of an undertaking lies in its ability to survive in the immediate future. Further, a company may have tremendous potential for profitability in the longrun but may languish due to inadequate liquidity. It is, therefore, short-term liquidity that has been considered crucial to the very existence of an enterprise.
3.3 LIQUIDITY VS PROFITABILITY IN WORKING CAPITAL DECISION:

All decisions of the financial manager are assumed to be geared to maximization of shareholders' wealth, and working capital decisions are no exception. Accordingly, risk-return trade off characterizes each of the working capital decision. There are two types of risks inherent in working capital management, namely, liquidity risk and opportunity loss risk. Liquidity risk is the non availability of cash to pay a liability that falls due. It may happen only on certain day. Even so, it can cause not only a loss of reputation but also make the work condition unfavorable for getting the best terms on transaction with the trade creations. The other risk involved in working capital management is the risk of opportunity loss is risk of having too little inventory to maintain production and sales or risk of not granting adequate credit for realizing the achievable level of sales. In other words, it is the risk of not being able to produce more or sell more or both, and therefore not being able to earn the potential profit because there were not enough funds to support higher inventory and book debts. Thus, it would not be out of place to maintain that it is only theoretical that the current assets could all take zero values. Indeed, it is neither practicable nor advisable. In practice all current assets take positive values because firms seek to reduce working capital risks. However if more funds are deployed in current assets, the higher would be the cost of funds employed, and therefore, lesser the profit.
If liquidity goes up, profitability goes down. The risk-return trade-off involved in managing the firm's liquidity via investing in marketable securities is illustrated in the following example. Firms A & B are identical in every respect but me. Firm B has invested Rs.5000 in marketable securities, which has been financed with equity. That is the firm sold equity shares and raised Rs.5000/-. Note that firm A has a current ratio 2.5 (reflecting net working capital of Rs.15000/-) and earns a 10% return on its total assets. Firm B, with its larger investment in marketable securities has a current ratio of 3 and has net working capital of Rs.20000/-. Since the marketable securities earn a return of only 9% before taxes (4.5 per cent after taxes with a 50% tax rate). Firm B earn only 9.7 percent on its total investment. Thus investment in current assets and profitability in marketable securities does have a favorable effect on firm's liquidity, but it also has an unfavorable effect on the firm's rate of return earned on investment fund. The risk-return trade-off involved in holding more cash and marketable securities, therefore, is one of added liquidity versus reduced profitability. In the use of current versus long term debt for financing working capital needs also the firm takes risk-return, trade off other things remaining the same, the greater its reliance upon short-term debt or current liabilities in financing its current assets investments, the lower will be its liquidity on the other hand, the use of current liabilities offers some very real advantages to the user in that they can be less costly than long-term financing as they provide the firm with a flexible means of financing its fluctuating needs for current assets.
3.4 MEASUREMENT OF LIQUIDITY:

Liquidity of an enterprise can be studied in two ways, namely, (i) Technical liquidity, and (ii) Operational liquidity. The difference between the two methods of liquidity measurement depends upon whether one assumes the ‘liquidation concept’ of business as in case of the technical liquidity or the ‘going concern concept’ of business as in the case of the operational liquidity.

The first method of computation of liquidity is based on the assumption that the firm might become insolvent at any time and whether, in such an event, the current assets held by the undertakings would be sufficient to pay-off the current liabilities. On the other hand, the computation of ‘operational liquidity’ attempts the measurement of the firm’s potential to meet the current obligations on the basis of net cash flows originating from out of its own operations with the view that a manufacturing enterprise cannot pay off current liabilities from its current assets when it is in the rain. It is assumed under this approach that firms are going firms and hence the liabilities are met through the net cash flows arising out of their operations.

[I] TECHNICAL LIQUIDITY:
Technical liquidity is normally evaluated on the basis of the following ratios in a business enterprise.

1. Current Ratio  
2. Liquid Ratio / Quick Ratio
3. Acid-Test Ratio  
4. Net working Capital Ratio
[II] OPERATIONAL LIQUIDITY:

The efficiency ratios are particularly useful to the manager trying to improve the operational efficiency of the enterprise. Numerous ratios can be calculated and used for analysing the efficiency of the working capital but generally the following three important ratios are used:

(i) Inventory Turnover ratio,
(ii) Debtors Turnover ratio or Debt-Collection period, and
(iii) Working Capital Turnover ratio.

3.5 DETERMINANTS OF LIQUIDITY:

So far, the measurement of liquidity was accomplished by comparing current assets with current liabilities. But, focus has not been thrown on the factors that determine liquidity. Several factors influence the liquidity position of an undertaking. Significant among them are:

(a) the nature and volume of business;
(b) the size and composition of current assets and current liabilities;
(c) the method of financing current assets;
(d) the level of investment in fixed assets in relation to the total long-term funds; and
(e) the control over current assets and current liabilities.

Firstly, the nature and volume of business influence the liquidity of an enterprise. Depending upon the nature of the units, some firms require more of working capital than others. For some of the concerns like public utilities, less proportion of working capital is needed, vis-
à-vis, manufacturing organizations. Besides, an increasing volume of business also enhances the funds needed to finance current assets. In these situations, if the firm does not divert some funds from the long-term sources, the liquidity ratios would be adversely affected.

Secondly, the size and the composition of current assets and current liabilities were the basic factors that determine the liquidity of an enterprise. If a higher investment is made in the current assets in relation to current liabilities, there would be a corresponding rise in the current ratio. While quick and other ratios depend on the composition of current assets.

Thirdly, the method of financing current assets causes changes in the liquidity ratios. If greater part of the current assets is financed from long-term sources, greater also would be the current ratio. On the other hand, if the concern depends much on the outside sources for financing current assets, the ratio would fall.

Fourthly, the absorption of funds by fixed assets is one of the major causes of low liquidity. As more and more of the firm’s total funds are absorbed in this process, there will be little left to finance short-term needs and therefore liquidity ratios fall. Hence, the degree of liquidity is determined by the attitude of the management in the allocation of permanent funds between fixed and current assets.

Finally, stringent control over the current items causes fluctuations in the liquidity ratios. If investment in current assets is not taken care of
properly the firm may accumulate excess liquidity, which may adversely affect the profitability.

On the contrary, unduly strict control of the investment in all types of current assets may eventually endanger the existence of the firm owing to non-compliance of claims because of the shortage of funds. Similarly, control over current liabilities also plays an important role in determining liquidity of an enterprise by requiring the firm to contribute necessary funds from long-term sources to keep up the liquidity position.

3.6 EFFECTS OF LIQUIDITY:

Liquidity of a business is one of the key factors determining its propensity to succeed or fail. Both excess and shortage of liquidity affect the interest of the firm. By excess liquidity in a business enterprise, it is meant that it is carrying higher current assets than are warranted by the requirements of production.

Hence, it indicates the blocking up of funds in current assets without any return. Besides, the firm has to incur costs to carry them overtime. Further, the value of such assets would depreciate in times of inflation, if they are left idle. Owing to thecornering of capital, the firm may have resort to additional borrowing even at a fancy price.

On the other hand, the impact of inadequate liquidity is more severe. The losses due to insufficient liquidity would be many. Production may have to be curtailed or stopped from the lack of necessary funds.
As the firm will not be in a position to pay off the debts, the credit worthiness of the firm is badly affected. In general, the smaller the amount of default, the higher would be the damage done to the image of the unit. In addition, the firm will not be able to secure funds from outside sources, and the existing creditors may even force the firm into bankruptcy. Further, insufficient funds will not allow the concern to launch any profitable project or earn attractive rates of return on the existing investment.

Between the excess and inadequate liquidity, the latter is considered to be more detrimental, since the lack of liquidity may endanger the very existence of the business enterprise. Besides, both the excess and inadequate liquidity adversely affect the profitability, but liquidity itself is influenced by the low profitability. If the firm is earning very low rates of return or incurring losses, there would be no funds generated by the operations of the company which are essential to retire the debts. In fact, there is a tangle between liquidity and profitability, which eventually determines the optimum level of investment in current assets. Of the liquidity and profitability, the former assumes further importance since profits could be earned with ease in subsequent periods, once the image of the unit is maintained. But, if the firm loses its face in the market for wants of liquidity, it requires herculean efforts to restore its position. Instances are not lacking of great industrial giants, with comfortable book profits coming to grief for want of liquidity.
3.7 ANALYSIS OF LIQUIDITY:

The concept of liquidity within a business is vital to the understanding of financial management as it is the basic criteria of testing the short term liquidity position of the enterprise.

For the analyzing of liquidity of co-operative milk Industry following ratio have been computed.

1. **Current Ratio**
2. **Liquid Ratio / Quick Ratio**
3. **Acid-Test Ratio**
4. **Net working Capital Turnover Ratio**

(1) **CURRENT RATIO:**

The current ratio is a measure of the firm's short-term solvency. It explains the relationship between the correct assets and current liabilities. The current ratio is calculated by dividing current assets by current liabilities.

\[
\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}
\]

This ratio indicates the availability of current assets in rupees for every one rupee of current liabilities. A ratio of greater than one means that concern has more current assets than current liabilities. As a conventional rule, a current ratio of 2 : 1 or more is considered satisfactory. Tandon committee has recommended that ideal current ratio for bank financing is 1.33 : 1. However the current ratio is a crude-and-quick measure of the firm's liquidity.
If Income-tax paid in Advance is shown on Assets side of B/S,. it must be deducted from Provision for Taxation and net amount of Provision should be shown as Current Liability. ‘

It is generally believed that 2 : 1 ratio shows a comfortable working capital position, i.e. the current assets should be twice the current liabilities. However, this rule should not be taken as a hard and fast rule, because a ratio which is satisfactory for one business may not be satisfactory for the other. There may be instances when an enterprise may function satisfactorily even with a current ratio of one to one or less and some enterprises require much higher ratio than 2 to 1. If the amount of stock-in-trade is unduly large, then the 2 to 1 ratio may not be satisfactory. The Tandon Committee appointed by RBI had recommended a Current Ratio of 2:1. But later on the Chore Committee appointed by RBI recommended a satisfactory Current ratio of 1.33 : 1. The adequacy of this ratio depends upon a number of factors like the nature of business, the efficiency of collection department, the composition of current assets, the turnover of stock etc. If the turnover is quick and the collection is efficient, the business may be successfully carried on with a low current ratio.

Before giving any opinion about the liquidity of the company on the basis of current ratio, the types of assets, and the size must be considered. Sometimes, the current ratio seems to be high, because of excessive stock included in current assets. The reason may be low sales. Due to the a high proportion of obsolete, slow moving stock, the current ratio may be high, but its capacity to pay current liabilities on maturity will be definitely weak.

Page No. 112
(2) **Liquid Ratio** :

A variant of current ratio is the liquid ratio or quick ratio which is designed to show the amount of cash available to meet immediate payments. It is obtained by dividing the liquid assets by liquid liabilities.

Liquid assets are obtained by deducting stock-in-trade from current assets. Stock is not treated as a liquid asset because it cannot be readily converted into cash as and when required. The current ratio of a business does not reflect the true liquid position, if its current assets consist largely of stock-in-trade.

The liquid liabilities are obtained by deducting bank overdraft from current liabilities. Bank overdraft is not included in liquid liabilities because bank overdraft is not likely to be called on demand and is treated as a sort of permanent mode of financing. Hence, it is not treated as a quick liability.

Suppose, the liquid assets of a business are worth Rs. 1,20,000 and liquid liabilities are Rs. 1,00,000 then Liquid Ratio or Quick Ratio will be as follows:

\[
\text{Liquid Ratio} = \frac{\text{Liquid Assets}}{\text{Liquid Liabilities}} = \frac{1,20,000}{1,00,000} = 1.2 : 1
\]
(3) **Acid-Test Ratio:**

The measure of absolute liquidity may be obtained by comparing only cash and bank balance as well as readily marketable securities with liquid liabilities. This is a very exacting standard of liquidity and it is satisfactory if the ratio is 0.5 : 1. It is computed by dividing the value of quick assets by liquid liabilities. Here, quick assets do not include both stock and debtors, because payments from debtors would not generally be received immediately when liquid liabilities are to be paid. Thus the quick assets comprise only cash balance, bank balance and readily marketable securities only. Some writers call this ratio as **Absolute Liquidity Ratio**, (or Absolute Cash Ratio) e.g. The company has cash on hand Rs. 10,000; bank balance Rs. 45,000 and readily marketable securities Rs. 25,000. It means that its quick assets are worth Rs. 80,000; If the liquid liabilities are Rs. 1,20,000; then the acid-test ratio will be

\[
\text{Acid-test Ratio} = \frac{\text{Quick Assets}}{\text{Liquid Liabilities}}
\]

\[
\frac{80,000}{1,20,000} = \frac{2}{3} = 0.67 : 1
\]

It means that quick Assets are 2/3rd of Quick Liabilities
(4) **Net working Capital Turnover Ratio**

Working capital is also needed to meet the liquidity requirements of the enterprise. Cash is the most liquid form of assets. It is that form towards which most of the current assets are moving. The trade debtors and bills receivable accounts are but one step removed from cash. The purpose of every enterprise is to find out ways in which cash can be managed efficiently so as to contribute to the overall objective of the enterprise.

Ratio of cash to current assets explains the relationship between cash and current assets, as a whole. If most of the current assets are made up of cash alone, the profitability of an enterprise decreases, because cash by itself does not yield any profit. According to Brigham, “Cash is a non-earning asset, so excessive cash balances simply lower the total asset turnover, thereby, reducing both the rate of return on net worth and the value of the stock.” Choudhary observes, “The carrying of excess cash balances is costly, since while cash is being held earnings are being lost.”

Cash is the least profitable of all the assets. Therefore, maintaining an unduly heavy amount of cash, which may be more than the business needs, indicates that management is not able to employ usefully its surplus cash. The proportion of cash to total current assets should be kept as low as possible, considering the problems which may arise if cash balance is too low. Keeping the profitability into consideration the dairies want to hold a little amount of cash with them.
There have been attempts to lay down some rule as to the proper proportion between cash and the other accounts that make up the working capital, but no rigid rule seems applicable. The part cash plays in the working capital depends on the nature of the business. There is, then, no fixed proportion between cash and current assets.

Cash management is an important part of working capital management. In order to keep only a limited amount of cash, policies with regard to safety stock of cash as well as the quantum of cash requirement will have to be formulated. Excess cash balances should be in vested. They may be invested in short-term high grade securities.