

Cash Management

Cash is the most liquid asset of all and is vital for existence of any business firm. Its efficient management is crucial to the solvency of the business because as we all know cash is the focal point of the funds flows in a business.

It can be understood in two senses, one is actual cash held by firm and deposits withdraw able on demand, and in another sense it includes marketable securities, which can be convertible into cash immediately. The goal of cash management is to reduce the amount of cash that is being used within the firm so as to increase profitability, but without reducing business activities or exposing the firm to undue risk in its financial obligations.

Cash flows in connection with credit serve to introduce the concept of FLOAT which is the time lag or delay between the moment of disbursement of funds on the part of the customer and the moment of receipt of funds on the part of the seller (i.e., mail time, processing time, and clearing time with the banking system).

What factors must be considered when deciding on the appropriate amount of cash to hold?

Cash in checking accounts must be held so that bills are paid on time (transactions balance), for emergencies such as strikes, weather disruptions, etc. (Precautionary balance), bank requirements for loans or other services provided (Compensating balance), and for taking advantage of bargains (speculative balance).

Motives for holding cash

1. **The transaction motive:** Firms are in existence to create products or provide services. The providing of services and creating of products results in the need for cash inflows and outflows. Firms hold cash in order to satisfy the cash inflow and cash outflow needs that they have.

2. **The precautionary motive:** Holding cash as a precaution serves as an emergency fund for a firm. If expected cash inflows are not received as expected cash held on a precautionary basis could be used to satisfy short-term obligations that the cash inflow may have been bench marked for.

3. **Compensating motive:** Banks provide a variety of services to business firms, such as clearance of cheque, supply of credit...etc., for which a minimum balance is required to be kept with the bank, this balance is to compensate banks for services rendered.

4. **The speculative motive:** Economist Keynes described this reason for holding cash as creating the ability for a firm to take advantage of special opportunities that if acted upon quickly will favor the firm. An example of this would be purchasing extra inventory at a discount that is greater than the carrying costs of holding the inventory.

Cash management is concerned with the managing of:

1. Cash flows into & out of the firm,
2. Cash flows within the firm
3. Cash balances held by the firm at a point of time by financing deficit or investing surplus cash.

Factors that affect the cash needs:-

Cash Cycle:

Cash Outflow Cash Inflow

Cost of Cash Balance

Other Considerations

FORMS OF LIQUIDITY AND CHOICE OF LIQUIDITY MIX:

While a company's demand for cash has already been discussed above, it does not always keep the entire amount in the form of cash balance in the current account for the simple reason that the opportunity cost of idle cash is considerably high. That is why, companies try to maintain, besides cash, other liquid assets which provide some return but at the with relatively low risk. Let us first consider the forms of liquidity and then the choice of liquidity mix.

Forms of Liquidity

Cash Balance in the Current Account: This is the highest form of liquid asset a company can conceive of, but the return provided by it is nil. However, companies maintain approximately four to five per cent of their total assets, on the average, in this form despite no returns for reasons already explained.

Keeping Reserve Drawing Power Under Cash Credit/ Overdraft Arrangement: This form of liquidity appears to be quite attractive as it can have access to bank borrowing. However, constraints imposed by to be. Close scrutiny of the quarterly budgets of the company by banks and imposition of penal interest of two per cent over and above the normal rate of interest on under- or over – utilization make this form more tedious and time consuming. However, a built-in cushion may possibly be included while preparing the quarterly budgets and during some periods the full amount may be drawn. The tax benefit on the interest makes effective after – tax – rate to be much less costly, even if part of it is held in the form of idle cash. This not only helps as a liquid source but also helps in obtaining equal or higher limits during the forthcoming year.

Marketable Securities: These are short – term securities of government such as treasury bills and other gilt edged securities whose default risk is nil and, for that very reason, the return is low. It is preferable to ensure the maturity structure of these short-term securities with the likely periods of excessive cash drain on the part of the company. Then, the transaction costs can be considerably minimized as early liquidation prior to maturity may result in low return from these assets.

Investment in Inter-Corporate Deposits: A company can invest money with other companies in the form of short – term deposits ranging from two or three months to five or six months at remunerative rates. However, these deposits being unsecured in nature, are subject to considerable risk, unless the companies accepting such deposits have excellent antecedents as to their paying habits.

From among the different forms of liquidity available to a company a deliberate choice has to be made in selecting an appropriate mix that suits the liquidity requirements of the company and disposition of its management towards risk.

CHOICE OF LIQUIDITY MIX

The choice of selecting the portfolio of cash and near cash assets also known as the choice of liquidity mix is governed by a variety of factors which are briefly explained below:

Uncertainty Surrounding Cash Flow Projections: It is generally said that the only certain factor in the corporate environment is its uncertainty. Even if cash flow projections have been made with the utmost care the general uncertainty can at times make the projections go awry. However the degree of uncertainty is more in certain types of industries than in others. For example general engineering industry is more recession prone than others. Consequently, the onset of recession which was not anticipated may call for a thorough revision of cash flows and policy changes in respect of products plans, dividend payments etc. Similarly tea plantations can get adversely affected with an untimely hailstorm. Even within the same company which is stable and growing certain types of cash flows, especially collections and payables tend to be more uncertain than others. When the degree of uncertainty is high as evidenced by the sensitivity of cash forecasts to adverse changes in some of the underlying assumptions, the company will do well to have the liquidity mix tilted largely towards cash balance and in so far as possible reserve drawing power under the cash credit / overdraft arrangement and to a less extent gilt – edged securities. On the other hand certain types of industries such as synthetic fabrics, electrical appliances enjoy stable and growing demand. Once a company has established its image the degree of uncertainty surrounding cash flow projections will be comparatively less. Consequently the liquidity mix of such companies will be tilted more towards marketable securities and inter-corporate deposits.

Attitude of the Management towards Risk: When the management of the company attaches greater importance to a given percentage increase in return than to the same percentage increase in liquidity, the portfolio of liquidity mix chosen tends to have a higher proportion of cash balance and marketable securities and cash balances.

When the attitude of the management towards risk is quite conservative the liquidity mix chosen tends to have a higher proportion of cash balance and marketable securities and a lower proportion of intercorporate deposits.

Ability to Raise Non – bank funds and / or Control its Cash Flows: When a company is favourably placed in a position have ready access to non – bank funds it can afford to have less proportion of cash and more of intercorporate deposits and marketable securities. This ind of a situation arises mostly in the case of group companies. For example, when a manufacturing company promoted by a group faces cash shortage, a

Finance and Investment Company promoted by the same group can come to its rescue by providing funds. Such a company need not maintain a large portion of its liquid assets in the form of cash. Similarly, companies, which can control its cash flows effectively, need not hold a large proportion of idle cash in their liquidity mix. This kind of situation can arise in the cash of companies that have horizontal or vertical integration. For example a manufacturing company, which has got substantial interest and / or has promoted another company for the supply of raw materials the company can exercise greater control on payables. On the other hand, companies which do not enjoy ready access to non – bank sources of funds and / or not in a position to control cash flows may have to have greater proportion of cash and reserve drawing power in their liquidity mix.

Cash Planning

Cash planning is a technique to plan and control the use of cash. Cash Forecasting and Budgeting

- Cash budget is the most significant device to plan for and control cash receipts and payments.
- Cash forecasts are needed to prepare cash budgets.

Short-term Cash Forecasts The important functions of short-term cash forecasts

- To determine operating cash requirements
- To anticipate short-term financing
- To manage investment of surplus cash.

Short-term Forecasting Methods

- » The receipt and disbursements method
- » The adjusted net income method.

Receipt and Disbursements Method

The virtues of the receipt and payment methods are:

It gives a complete picture of all the items of expected cash flows.

It is a sound tool of managing daily cash operations.

This method, however, suffers from the following limitations:

Its reliability is reduced because of the uncertainty of cash forecasts. For example, collections may be delayed, or unanticipated demands may cause large disbursements.

It fails to highlight the significant movements in the working capital

items.

Adjusted Net Income Method

The benefits of the adjusted net income method are:

It highlights the movements in the working capital items, and thus helps to keep a control on a firm's working capital.

It helps in anticipating a firm's financial requirements.

The major limitation of this method is:

It fails to trace cash flows, and therefore, its utility in controlling daily cash operations is limited.

Long-term Cash Forecasting

The major uses of the long-term cash forecasts are:

It indicates as company's future financial needs, especially for its working capital requirements.

It helps to evaluate proposed capital projects. It pinpoints the cash required to finance these projects as well as the cash to be generated by the company to support them.

It helps to improve corporate planning. Long-term cash forecasts compel each division to plan for future and to formulate projects carefully.

Managing Cash Collections and Disbursements

Accelerating Cash Collections

- Decentralised Collections

Controlling Disbursements

- Lock-box System
- Disbursement or Payment Float

Features of Instruments of Collection in India

<i>Instrument</i>	<i>Pros</i>	<i>Cons</i>
1.Cheques	• No charge • Payable through clearing • Can be discounted after receipt • Low discounting charge • Requires customer limits which are inter-changeable with overdraft limits	• Can bounce • Collection times can be long • Collection charge
2.Drafts	• Payable in local clearing • Chances of bouncing are less	• Cost of collection • Buyers account debited on day one
3.Documentary bills	• Low discounting charge • Theoretically, goods are not released till payments are made or the bill is accepted	• Not payable through clearing. • High collection cost • Long delays
4.Trade bills	• No charge except stamp duty • Can be discounted. • Discipline of payment on due date.	• Procedure is relatively cumbersome • Buyers are reluctant to accept the due date discipline.
5.Letters of credit	• Good credit control as goods are released on payment or acceptance of bill. • Seller forced to meet delivery schedule because of expiry date.	• Opening charges • Transit period interest • Negotiation charges • Need bank lines to open LC. • Stamp duty on usance bills

How to accelerate cash collections?

Decentralized collections

Lock-box system

Prompt payment by Customers

Early conversion of payment into cash

Objective of Cash Management

- i) Meeting the cash outflows
- ii) Minimizing the Cash Balance

Ways to Improve Collection of Cash

A. Changing customer paying habits

1. Letters, telephone calls, or personal visits
2. Economic incentive for paying bills faster; offer discounts

B. Improve the Delivery system (reduce the negative float)

1. Regional banking (customers pay bills to banks since they can transfer funds more quickly than mail order delivery).
2. Lockbox collection system (firm rents a post office box in a particular city and the bank monitors the lockbox periodically).
3. Electronic communications (i.e., data-phone wire systems).

C. Bypass the problem (Factoring of receivables).

ii)

Optimum Cash Balance

Optimum Cash Balance under Certainty: Baumol's Model

Optimum Cash Balance under Uncertainty: The Miller–Orr Model

Baumol's Model–Assumptions

The firm is able to forecast its cash needs with certainty.

The firm's cash payments occur uniformly over a period of time.

The opportunity cost of holding cash is known and it does not change over time.

The firm will incur the same transaction cost whenever it converts securities to cash

Baumol's Model

The firm incurs a holding cost for keeping the cash balance. It is an opportunity cost; that is, the return foregone on the marketable securities. If the opportunity cost is k , then the firm's holding cost for maintaining an average cash balance is as follows:

$$\text{Holding cost} = k(C / 2)$$

The firm incurs a transaction cost whenever it converts its marketable securities to cash. Total number of transactions during the year will be total funds requirement, T , divided by the cash balance, C , i.e., T/C . The per transaction cost is assumed to be constant. If per transaction cost is c , then the total transaction cost will be:

$$\text{Transaction cost} = c(T / C)$$

The total annual cost of the demand for cash will be:

$$\text{TOTAL COST} = k (C/2) + c(T/C)$$

The optimum cash balance, C^* , is obtained when the total cost is minimum. The formula for the optimum cash balance is as follows:

$$C^* = \sqrt{\frac{2cT}{k}}$$

Illustration–Baumol's Model

Advani Chemical Limited estimates its total cash requirement as Rs 2 crore next year. The company's opportunity cost of funds is 15% per annum. The company will have to incur Rs 150 per transaction when it converts its short-term securities to cash. Determine the optimum cash balance. How much is the total annual cost of the demand for the optimum cash balance? How many deposits will have to be made during the year?

$$C^* = \sqrt{2cT/k}$$
$$C^* = \sqrt{\frac{2(150)(20,000,000)}{0.15}} = \text{Rs } 200,000$$

The annual cost will be:

$$\begin{aligned} \text{Total cost} &= 150(2,00,000/2,00,000) + 0.15(2,00,000/2) \\ &= 150(100) + 0.15(1,00,000) = 15,000 + 15,000 = \text{Rs } 30,000 \end{aligned}$$

The Miller–Orr Model

The MO model provides for two control limits—the upper control limit and the lower control limit as well as a return point.

If the firm's cash flows fluctuate randomly and hit the upper limit, then it buys sufficient marketable securities to come back to a normal level of cash balance (the return point).

Similarly, when the firm's cash flows wander and hit the lower limit, it sells sufficient marketable securities to bring the cash balance back to the normal level (the return point).

The Miller-Orr Model The difference between the upper limit and the lower limit depends on the following factors:

— the transaction cost (c)

— the interest rate, (i)

the standard deviation (σ) of net cash flows

The formula for determining the distance between upper and lower control limits (called Z) is as follows:-

Upper limit – lower limit = $(3/4 * \text{transaction cost} * \text{cash flow variance int.rate})$

$$\text{Upper Limit} = \text{Lower Limit} + 3Z$$

$$\text{Return Point} = \text{Lower Limit} + Z$$

The net effect is that the firms hold the average the cash balance equal to:

$$\text{Average Cash Balance} = \text{Lower Limit} + 4/3Z$$

Investing Surplus Cash in Marketable Securities

Selecting Investment Opportunities:

- *safety,*
- *Maturity, and*
- *marketability*

Short-term Investment Opportunities:

- *Treasury bills*
- *Commercial papers*
- *Certificates of deposits*
- *Bank deposits*
- *Inter-corporate deposits*
- *Money market mutual funds*