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## **UNIT16 CASH MANAGEMENT**

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## **16.1 INTRODUCTION**

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In the previous unit, you learned that Working capital is an integral part of managing a business and therefore its efficient and effective management can ensure incessant earning to the business without hindering its liquidity position. This unit explains that cash is one of the focus areas of the Management and it is absolutely necessary that cash should be sufficient for the survival of the company. Accordingly, cash management strategies are concerned with managing liquidity as well as profitability efficiently so that company can combat the unpredictable changes in cash. The cash management is examined from the four aspects and these are;

- a) Managing level of Cash
- b) Managing Cash Inflows
- c) Managing Cash Outflows and
- d) Optimal investment of surplus cash

Now let us learn about these aspects and their method in this unit.

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## 16.2 OBJECTIVES

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After reading this unit you will be able to:

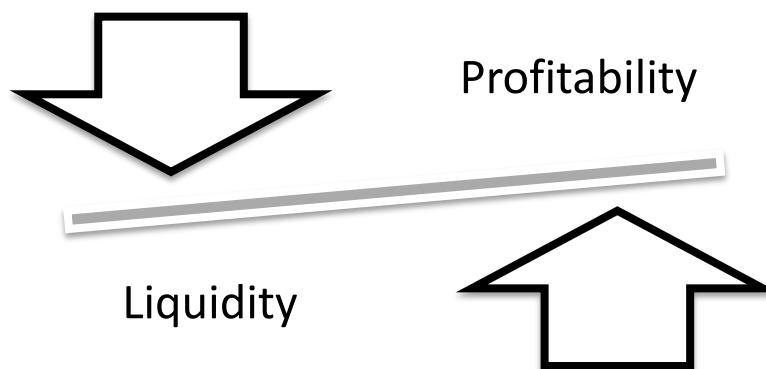
- Assess the importance of cash management.
- Identify the motives for holding cash.
- Conversant with estimating firm's cash conversion cycle.

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## 16.3 ABOUT CASH MANAGEMENT

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Cash management is one of the prime concerns of the Finance Managers. It is the most crucial aspect of any business organization. Cash Management means managing cash effectively in the firm so that the firm can achieve appropriate liquidity and maximum profitability. Therefore, it involves devising strategies for optimum utilization of liquid assets so that there are proper raising, disbursement, allocation, and investments of cash and near-cash assets. The optimum cash balance is the position when the company neither has excessive liquid funds nor is facing a cash crunch during its functioning. So managing a business with this optimum level of cash is termed as ideal cash level. Cash management strategies are concerned with managing liquidity as well as profitability so that company may have a win –win situation on these fronts. But balancing these twin objectives is challenging for a company. This happens if a company is holding excessive cash then the company will carry opportunity cost of profits or returns and on the contrary, if a company has a cash shortage due to excessive investments then it will severely impact the manufacturing process. Thus, a finance manager has this responsibility of managing an appropriate cash level in the company as well as balancing liquidity and profitability simultaneously.



**Fig 16.1 Cash Management Twin Objectives- Balancing Liquidity and Profitability**

“Cash should be held by the company until the time marginal value of the liquidity it gives is equal to the value of the interest lost. (Kishore Ravi). Thus, the basic objective for the Cash

Management is to ensure that cash is sufficient to fulfill current commitments while ensuring that there are no unused funds available in the organization.

Waltson and Head (2007) explained Cash Management as the concept which is concerned with optimizing the amount of cash available, maximizing the interest earned by spare funds not required immediately, and reducing losses caused by delays in the transmission of funds.

According to Zimmerer et al (2008) cash management is the process of forecasting, collecting, disbursing, investing, and planning for cash a company needs to operate smoothly. They further added that cash management is a vital task because it is the most important yet least productive asset that a small business owns. A business must have enough cash to meet its obligations or it will be declared bankrupt. Creditors, employees, and lenders expect to be paid on time and cash is the required medium of exchange

The following are the key functions of Management regarding managing cash;

- (i) Regulation of Cash Level in the Company
- (ii) Regulation of Cash Inflows in the Company.
- (iii) Regulation of Cash Outflows in the Company.
- (iv) Optimum Investment or appropriate investment in surplus cash and near-cash assets.

As per ICAI, the following terms are used in Accounting Standard for Local Bodies (ASLB) Financial Reporting under the Cash Basis of Accounting with the meaning specified:

- “Cash comprises cash on hand, demand deposits and cash equivalents.
- Cash basis means a basis of accounting that recognises transactions and other events only when cash is received or paid.
- Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.
- Cash flows are inflows and outflows of cash.
- Cash payments are cash outflows.
- Cash receipts are cash inflows.
- Control of cash arises when the entity can use or otherwise benefit from the cash in pursuit of its objectives and can exclude or regulate the access of others to that benefit.”

Since there is a lack of synchronization between cash outflows and cash inflows, therefore, it is pertinent to identify the timings and amount of future cash flows. Seasonal industries generally follow a conservative approach in holding cash as they witness asymmetry in cash receipts and cash payments.

Effective Cash management involves the management of cash inflows and outflows which involves (Kishore Ravi);

- a) Appropriate estimation of cash flows
- b) The symmetry between cash inflows and outflows

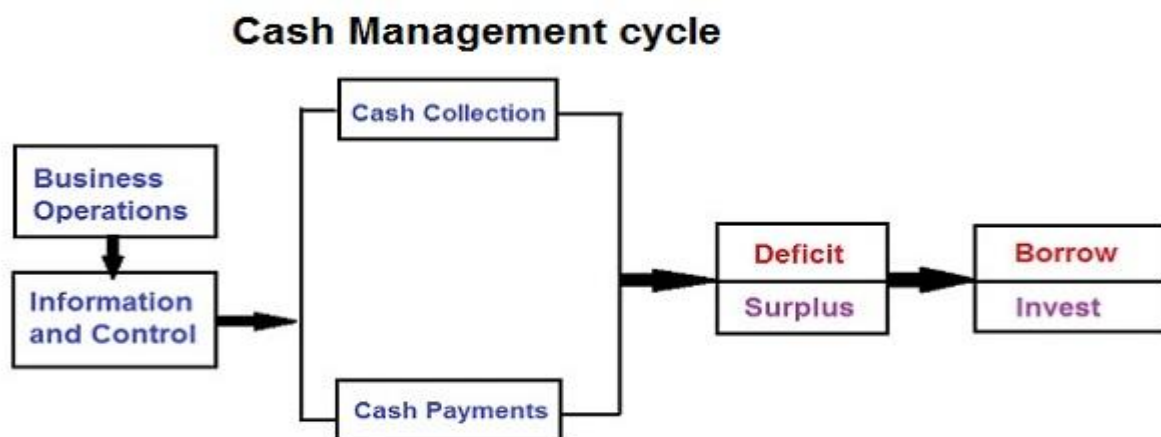
- c) Using Floats
- d) Increasing Collections
- d) Availability of funds whenever needed
- e) Controlling disbursements

Therefore, the main objective of cash management is short term forecasting of cash and near-cash assets position in an enterprise and taking steps for financing cash deficit during a given point of time and investing cash surplus if any at a given point of time.

### 16.3.1 CASH MANAGEMENT CYCLE

The main objective of working capital management is to reduce the cash conversion cycle to manageable limits. The company can achieve this by reducing the raw material work in progress and receivables conversion periods and by increasing the Average Payable Period.

Raw material Conversion Period+ Work in Progress Conversion Period+ Finished Goods Conversion Period+ Receivables Conversion Period- Average Payable Period =Cash Conversion Cycle



**Fig 16.2 Cash Management Cycle (Source Pandey I.M, Chapter 30 Cash Management, page No. 640)**

Hence, the main aspect of cash management is managing cash collections, cash payments, and cash surplus held. From cash management cycle it can be inferred that from where cash results and where it is disbursed for the payments. Further, if there is surplus cash then it has to be invested for earning returns and on the contrary, if there is deficit then funds is borrowed to meet the remaining payments. The ideal cash management accomplishes the above with the minimum cost. However, this ideal cash management depends upon organization structure, market position, industry's norms, economic position, sales level, competition, etc. Accordingly, a company needs to hold cash balances to have sufficient

liquidity. Therefore, there are certain motives due to which a company holds cash balances. Let us study this in the next section;

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## 16.4 MOTIVES OF HOLDING CASH

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The firm needs to keep an optimum level of cash in an organisation because of the following three motives;

**Transaction Motive** – Cash is required for meeting day to day obligation of the business, Firm requires cash for the payments of raw material, purchases, wages and salaries, operating expenses, dividends, interests, installation charges, etc. Since there is a time lag between receipts and payments of cash therefore the company needs to keep sufficient amount of cash for the routine expenses. For meeting these routine expenses, the working cash inflows should be in surplus than the working capital outflows. The company may also invest funds in marketable securities for meeting out funds required for transactions, as marketable securities are also considered as near cash assets. Generally, companies invest cash in securities whose maturity matches the payments required for dividends, interest charges, etc. Cash is kept for the transactionary motive to meet payments whose timing is not perfectly matched with cash inflows. However, online banking, e-payments apps, online transfers have changed the scenario of keeping an additional buffer for transaction purposes.

**Precautionary motive-** Companies hold cash to meet uncertainties, contingencies, unforeseen circumstances, and fluctuations in the market. Accordingly, cash is retained by the companies to have smooth business operations to face such uncertainties. Keeping funds in liquid form or in bank account as a safeguard against unforeseen events is also important for the management.

**Speculative Motive-** Another motive of holding cash is for speculation purposes. For taking advantage of speculative investment opportunities cash may be kept by the companies. Sometimes a company may find unexpected opportunities during normal business routine such a sudden decrease in prices of raw material which is not expected to exist for long or company is interested to invest into some securities due to sudden decline in prices. These transactions are purely speculative in nature and hence companies or firms keep cash to explore possibilities that are out of the usual course of business.

**Compensation Motive-** Companies or Business Organisations also keeps some minimum balance in their current account as per the policies of the banks. This minimum balance is not allowed for transaction purposes; therefore it is also a type of investment of liquid funds by the company in the Bank Accounts.

The cash management deals with the following facets these are;

A) Cash Planning

B) Managing Cash Flows

C) Determining Optimum Cash Level

D) Investing Surplus Funds

These are taken one by one in this unit, let us discuss very first aspect that is cash planning.

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## 16.5 CASH PLANNING

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The management needs to plan and use cash appropriately. It will help in estimating cash inflows and cash outflows for a given point of time. This will help in ensuring that the company has sufficient funds to meet expenditures effectively over the year and cash surplus or deficit so found are adequately met. This planning can be prepared for weekly, monthly, quarterly, or yearly basis depending upon the nature and scale of operations. Cash budget is one of the important devices for planning cash inflows and outflows of a firm at a given point of time. It helps in better monitoring and control.

### 16.5.1 CASH BUDGET

Cash Budget depicts the amount of cash receipts and cash payments or you can say it represents cash inflows and outflows over a given period of time. It helps in estimating the future cash requirements of the company and planning for financing these requirements, exercising control over the cash inflows and outflows and maintaining liquidity of the firm. Such cash inflows and outflows include income received, expenses charged, and receipts and payments for loans. In other words, cash budgeting is a projected future financial situation forecast of the business.

Now take a look of few definitions of cash budget;

“This budget represents the amount of cash receipts and payments, and a balance during budgeted period, it is prepared after all the functional budget are prepared by the chief accountant either monthly or weekly giving the following hints;

- a) It ensures sufficient cash for business requirements.
- b) It proposes arrangements to be made overdraft to meet any shortage of cash.
- c) It reveals the surplus amount and the effect of the seasonal fluctuations on cash position.”  
(Pillai and Bhagavathi)

“A cash budget is a summary statement of the firms expected cash flows and outflows over a projected time period. It gives information on the timing and magnitude of expected cash flows and cash balances over the projected period” (Pandey I.M)

A cash budget is a summary of movement of cash during a particular period.”(Rustagi)

Hence, cash budget helps in effective cash management as it can identify cash deficit as well as cash surplus. Further, it will help a company in recording sources of receipts and payments to know how much cash to be held, to what extent funds from the bank can be raised and to

what extent surplus funds can be invested in marketable securities. Cash flow statement is different from the cash budget as in cash flow statement the cash generated and used during a given point of time is reported under the three heads that are operating, financial and investing activities. The cash flow statement is prepared from the past figures whereas cash budget is forecasting regarding cash inflows and outflows for the future.

Cash budget is prepared as per the following Methods;

- a) Receipts and payments Method
- b) Adjusted Net Income Method
- c) The Balance Sheet Method

1) Receipts and Payment Methods-In this method, cash receipts from various sources and cash payments to various agencies and individuals are estimated. Cash receipts are added to the opening balance of cash and from the total, the total of estimated cash payments is deducted to determine the closing a balance.

Particulars	Amount
<b>Opening cash balance</b>	
<b>Add Receipts</b>	
Cash Sales	
Collection from Debtors	
Advance Received	
Dividend Received/Interest Receive	
Sale of Investments	
Raising of funds	
Tax Refund	
Revenue receipts	
<b>Less payments</b>	
Creditors	
Wages& Salaries	
Overheads	
Purchase of fixed assets	
Purchase of securities	
Payment of loans	
Surplus/Shoratge	
<b>Closing Cash Balance</b>	

## 2) Adjusted Profit and Loss Method

In this method cash budget is prepared on the basis of opening cash and bank balances, projected profit and loss account and balances of the assets and liabilities.

<b>Particulars</b>	<b>Amount</b>
Opening Balance	
<b>Add</b> Net Profit	
Depreciation	
Decrease in B/R	
Issue of Securities	
Increase in B/P	
Decrease in Stock	
Depreciation, Goodwill written off	
Transfer to General Reserves	
<b>Less</b> Purchase of Machinery	
Purchase of Furniture	
Increase in Debtors	
Decrease of Creditors	
Decrease in other current liabilities.	
Dividend	
<b>Closing Balance</b>	

## 3) The Balance Sheet Method

In this method at the end, budgeted balances for cash and bank or forecasted balance sheet is prepared in which assets and liabilities are presented and the balancing figures are computed that represents overdraft or cash balance. When assets are less than liabilities then the difference will be Cash Balance. On the other hand when assets are more than liabilities the difference will be Bank Overdraft.

Let us now consider preparation of cash budget from the illustration given below;



From the information provided by XYZ Ltd. regarding income and expenditure for three months October, November and December, let us compute cash budget. The bank balance on 1<sup>st</sup> October, 2020 was Rs 15,00,000

Month	Sales	Purchases	Wages	Factory Expenses	Administration and Selling Expenses
July	20,00,000	12,00,000	1,00,000	2,00,000	1,00,000
August	18,00,000	8,00,000	90,000	2,00,000	1,20,000
September	21,00,000	11,00,000	1,10,000	1,80,000	1,30,000
October	17,00,000	8,00,000	1,20,000	1,90,000	1,10,000
November	18,00,000	10,00,000	1,00,000	1,85,000	1,10,000
December	20,00,000	10,00,000	1,50,000	2,30,000	1,30,000

Particulars	
Sales Commission due two month after sales is payable in addition to selling expenses	5 percent on sales
Purchase of Plant in the month of December	1,00,000
Dividend payable in November	1,00,000
Two months credit allowed to customer and three months credit is offered from the suppliers	
Wages, Factory Expenses and Administrative expenses are paid in the next month	

**Cash Budget for three months****October to December, 2020**

	<b>October</b>	<b>November</b>	<b>December</b>
<b>Receipts</b>			
Opening Balance	1500000	1590000	2265000
Sundry Debtors	1800000	2100000	1700000
	3300000	3690000	3965000
<b>Payments</b>			
Sundry Creditors	1200000	800000	1100000
Wages	110000	120000	100000
Factory Expenses	180000	190000	185000
Administration and Selling Expenses	130000	110000	110000
Dividend payment		100000	
Sales Commission	90000	105000	85000
Purchase of Plant			100000
	1710000	1425000	1680000
<b>Closing Balance</b>	<b>1590000</b>	<b>2265000</b>	<b>2285000</b>

Cash Reports are also prepared by finance managers to know the actual cash position on a more frequent basis i.e. on a daily or a weekly basis. Cash reports are generally prepared when cash inflows and outflows can be forecasted with accuracy. Cash reports help in keeping a check on actual data and budgeted data and making changes accordingly in financing patterns and controlling cash or marketable securities.

***Check Your Progress-A*****Q1. What do you mean by Cash Management?**

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**Q2. What are the motives of holding cash in a company?**

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**Q3. What is Cash budget?**

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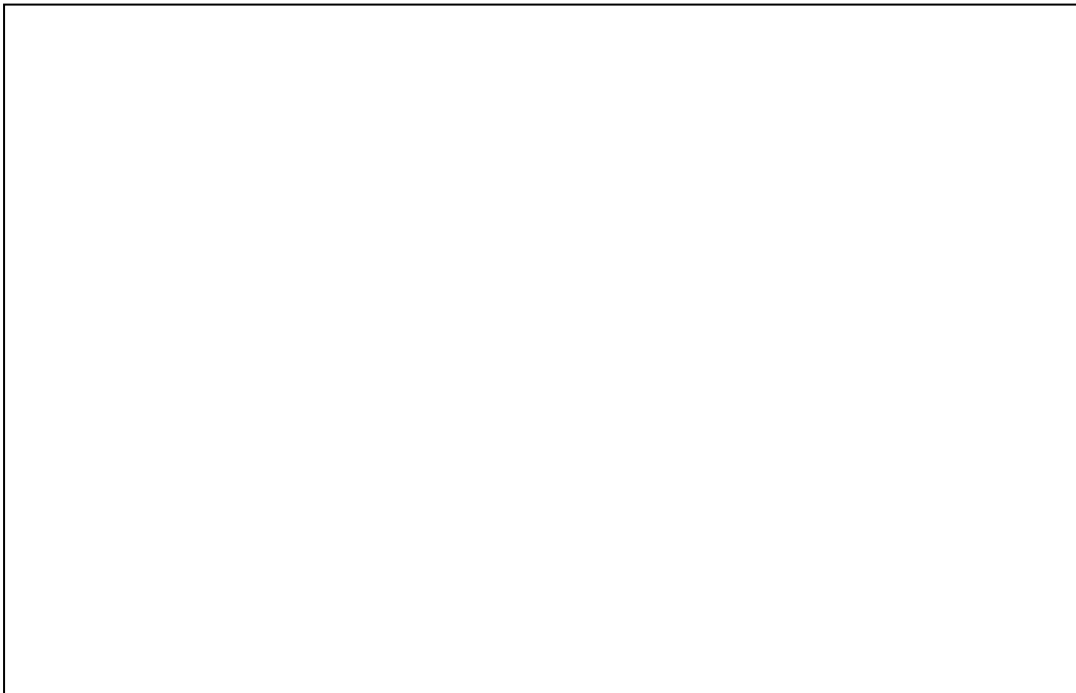
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**Q4. Draw Cash Management Cycle.**



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## 16.6 MANAGEMENT OF FLOAT AND CASH FLOWS

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### 16.6.1 MANAGEMENT OF FLOAT

A Company should control cash outflows effectively. This means that cash disbursements can help in retaining cash with the company. Therefore, trade credit is also termed as spontaneous finance. The company should make the best possible use of credit terms and by maximizing delay in payment (but without affecting goodwill) results in maximum availability of funds. Now, how this time lag or float can be used as cash management strategies is discussed as under;

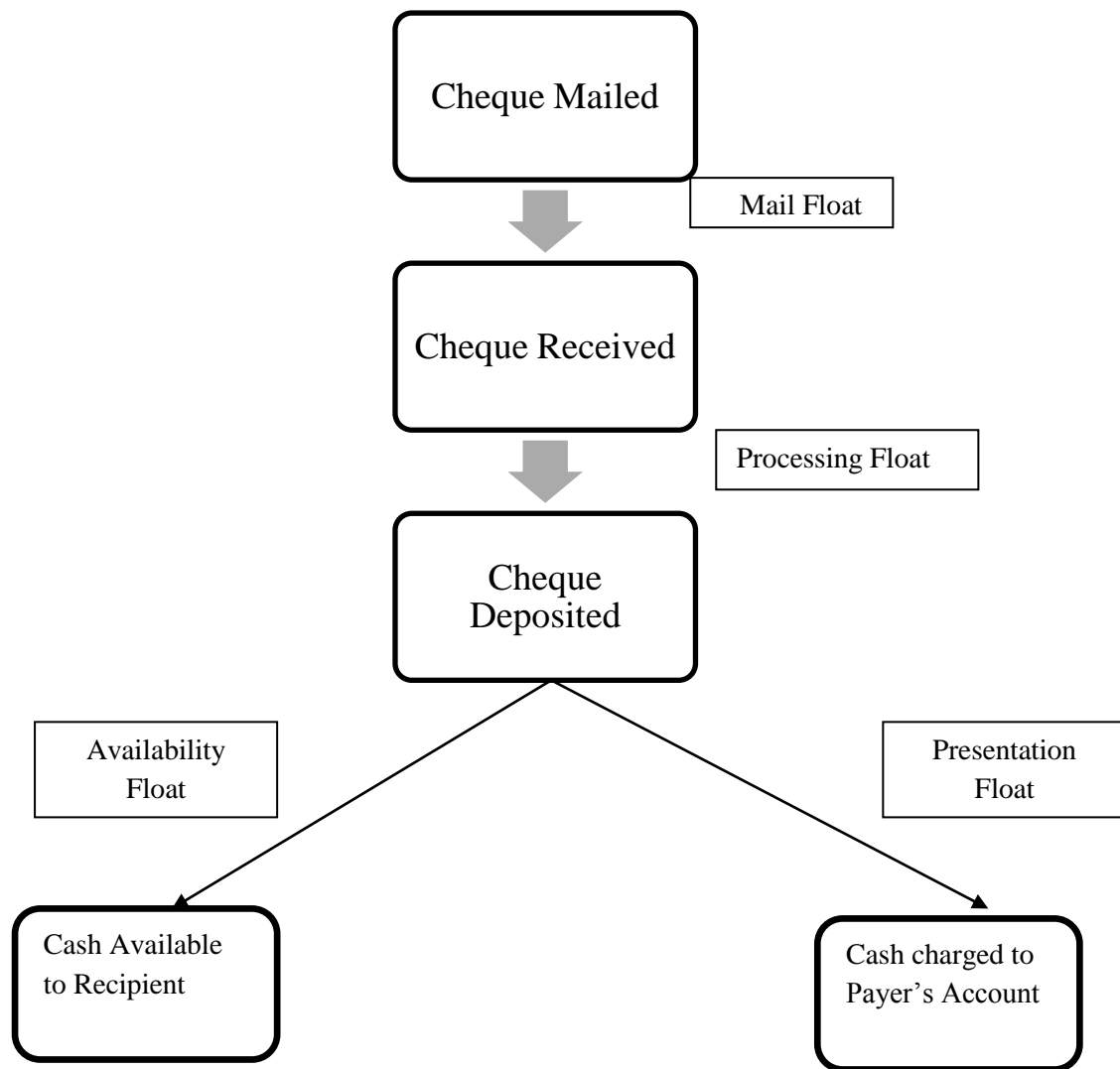
Float means the amount of money that is tied up between the time a payment is initiated and actual funds become available in the company's bank account. When a firm collects or accepts payments in cheque and the same is processed at a later date this difference between when the cheque was received and actual payment was received is termed as a float. Float refers to the "amount of money tied up between the time a payment is initiated and cleared funds become available in the company's bank account. The efficiency of firm's cash management can be enhanced by having knowledge and use of various proceeds aiming at accelerating cash inflows and controlling cash outflows." (Kishore Ravi) Therefore, this float should be managed strategically and efficiently to reduce the breadth and depth of the cash management cycle. The various sources of float which company face;

**Billing Float-** When the goods are dispatched to the customer an invoice is prepared for the goods consigned. The time lag between the sale of goods and mailing of invoice or bill is termed as billing float.

**Mailing Float-** The Time lag between cheque sent by the customer through mail and cheque received at the seller's office is termed as Mail Float.

**Processing Float-** The Time gap between the receipt of cheque and deposit of cheque into the bank account is termed as Processing Float.

**Cheque Clearing Float-** When there is a gap between the time of depositing a cheque and the period when the funds are available for spending is termed as Cheque Clearing Float.



**Fig 16.3 Types of Floats (Source: Bodhanwala in Chapter 13 Cash Management, pp 329)**

Types of Float are ;

- a) Collection Float
- b) Payment Float
- C) Net Float

Collection Float is the time lag between the payments made by the customers or the debtors and the time funds are actually available for usage. It is the time lag when the amount is deposited according to record of the company and the amount of cash reflected as per the record of the bank.

Cheques issued by the bank but not paid at any given time are called 'payment float'. The interval between the day a cheque is deposited and the day that the sum is finally withdrawn from the bank balance of the firm is termed as payment float. This float can be used at the time of adverse time when a company faces a shortage of cash as it helps to extend money in times of need.

The difference between the payment float and the receipt float is termed as a net float. The net float is the total difference between the bank balance available to the business and the balance reported by the company's ledger. If the net float is positive, i.e. payment float is more than receipt float, and then the bank balance available exceeds that of the book. A business with a positive net float will take advantage of it and retain a lower cash balance.

Therefore, effective cash management focuses on accelerated cash collections and decelerates cash disbursements to the extent it can easily and optimally manage. Therefore, a company has to 'play with float' to maximize the availability of the funds with the company. If a finance manager can accurately determine to predict receipt of cheques and cash and similarly payment of cash and cheques accurately then the manager can play with this float for earning returns.

### 16.6.2 MANAGING CASH FLOWS

Cash flows should be adequately controlled by the finance manager. This requires reviewing and controlling on a regular basis. A company needs to formulate a method whereby each functional unit maintains sufficient cash to fulfill its regular requirements without keeping in hand surplus balances. Thus management should focus on accelerated collection using a decentralized collection process as this will help in speedy recovery from the debtors. The Concentration banking and lockbox system also serves in speedy collections from debtors.

**Concentration Banking-** In concentration banking, a company establishes various collection centres in different regions near debtors. The firm collects payments at the regional collection centre instead of a single collection center at the head office. The payment so collected at the local banks is transferred to the head office's bank account. Accordingly, this system will reduce the collection time from the debtors and hence will help in effective cash management. "The movement of cash from lockbox or field banks into the firm's central cash pool residing in a concentration bank is termed as cash concentration." (Van Horne) This cash concentration process contributes in improving control over cash flows, keeping minimum compensating balances, and accordingly reducing the size of the float.

**Lockbox System-** Under the Lockbox System, the customers send their payments to the nearest post office box also called 'lockboxes'. The companies through the local banks collect the amount from the post office boxes and these banks later credit the amount to the company's account after deducting their cost. These banks collect amount or cheques from the post office several times a day. This system can streamline collections for the company

where high denominations cheques or large amount of payments need to be collected. In India, this system is not so popular because sometimes this system is highly costly and it is also not profitable for the firms whose receivables are few in number. Using advanced lockbox technology, banks have built several contact channels for companies to use for payment and deposit receipts.

**Online Transfers**-In the recent past years, online transfer of funds provided has drastically changed the cash management strategies of the firm. In today's world information and funds are transferred from one account to another with great speed and reliability. This has lead in forecasting patterns and management of cash and near-cash assets. In general, the speed of electronic fund transfer has to an extent eliminated float. Electronic Fund Transfer has magnified reliability by rendering accurate information tracked from using debit and credit cards. This has not only helped in saving money but also helped in reducing hard cash. This means that with electronic fund transfers, one can easily transfer money from one bank account to another without the exchange of physical cash. The system does not only reduce hard cash but also abolish paper money and eliminate most crimes (Bitwababo, 2011). Online transfer of funds system is gradually replacing manual processes with electronic data processing and this system has scaled up the flow of funds by transmitting data at high speed. These methods are simple, effective, customer-friendly, and are easy to handle; with which money can be sent or received across the globe without any problems or hassles.

Therefore, the above systems are sustainable if expenses are less than profits or returns, and the same is not capable of adoption if company is spending more than the returns generated from the above system.

The next important decision in cash management is determining the optimum level of cash balance from the following models that have been developed for estimating optimum level. Many types of mathematical models have been built by finance wizards that will help companies in deciding the optimal cash balance.

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## 16.7 CASH MANAGEMENT MODELS

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### 16.7.1 BAUMOL'S MODEL

This model has been propounded by Willam Baumol as published in the "Transactions Demand for Cash: An Inventory Theoretic Approach" published in The Quarterly Journal of Economics in Year 1952. In this, he suggested that cash should be managed in the same way as inventory is managed based on the optimum cash balance.

This model states that the level at which the carrying cost and transaction costs are the minimum is basically an optimum cash level. The carrying cost or holding cost refers to the

cost of holding cash that is interest forgone on marketable securities or you can say it is an opportunity cost in terms of interest forgone on investment of this cash. Transaction cost is the cost incurred due to the conversion of cash into marketable securities and *vice versa*; that cost incurred in the form of brokerage, commission, etc. The optimum level of cash is determined using the following formula;

$$\text{Optimum level of Cash balance} = \sqrt{\frac{2AT}{I}}$$

Where

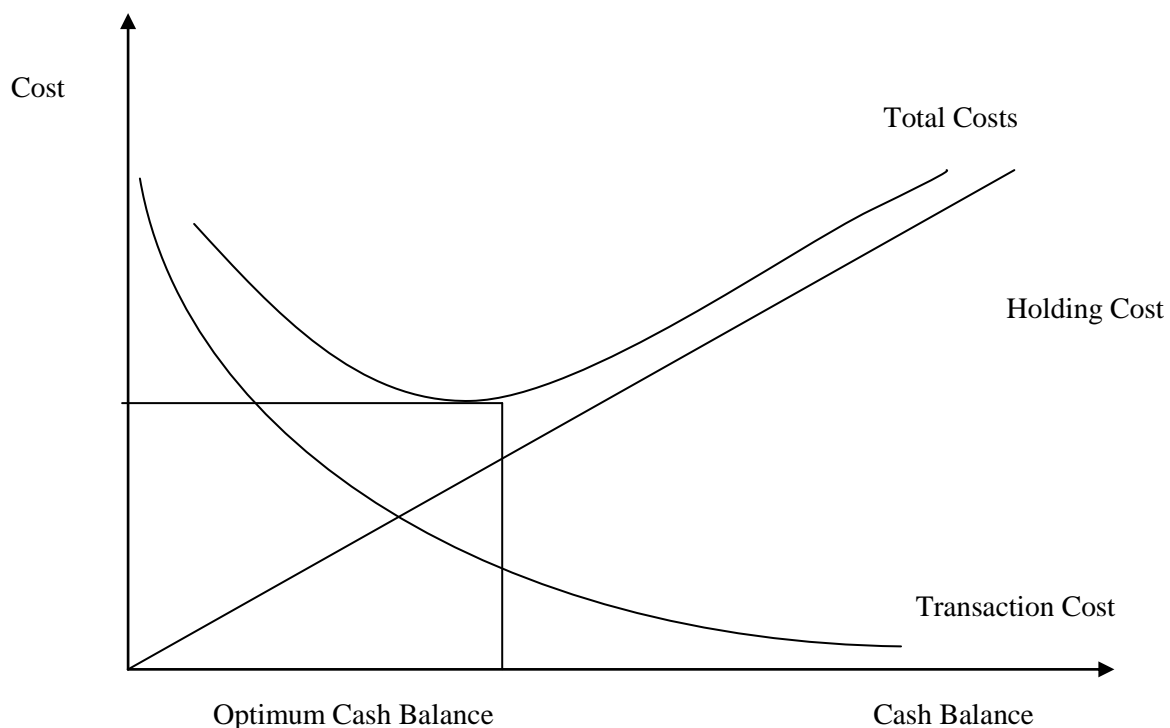
A = Annual Cash Payments

T = Cost per transaction of purchase or sale of marketable securities

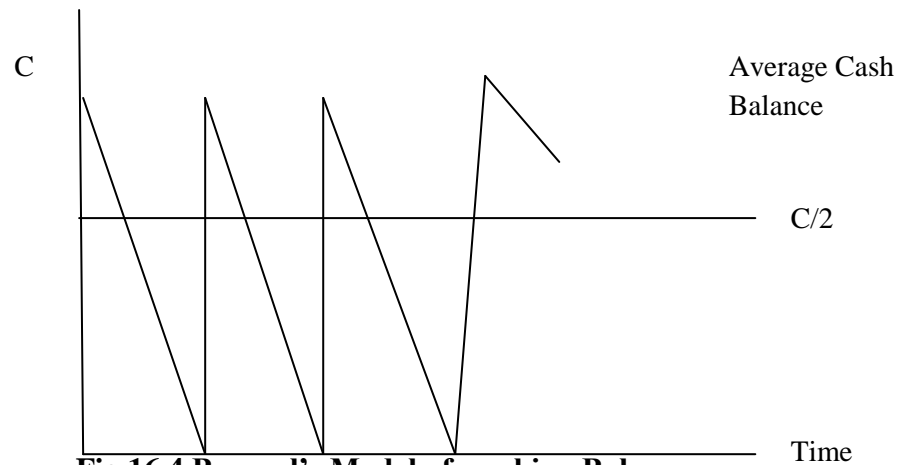
I = Interest on marketable securities (carrying cost per rupee of cash)

The model has the following assumptions;

- a) The company can predict its requirements of cash with certainty.
- b) The opportunity cost of holding cost is known and is constant.
- c) A company can easily access transaction cost and this also remain constant.
- d) Cash usage of the company can be assessed with certainty and it is also uniform over a period of time.







**Fig 16.4 Baumol's Model of working Balance**

Let us try to calculate optimum level of cash using Baumol's Model on the basis of the following information;

Total Cash need of the ABC Limited is Rs 4,00,000 per annum. Annual returns from the marketable securities are 16% per annum. The cost of converting money into securities is Rs 40 per transaction. Securities can be bought and sold in fractions. You are required to calculate optimum level of cash using Baumol's Model.

$$\text{Optimum level of cash} = \sqrt{\frac{2AT}{I}}$$

$$= \sqrt{\frac{2 \times 4,00,000 \times 40}{.16}}$$

$$= 14142.1356$$

### 16.7.2 MILLER-ORR MODEL

This model assumes that cash flows pattern is stochastic in nature. This means that net cash flows are normally distributed with a zero value of mean and a standard deviation. This model argues that changes in cash balance for a given time period are random in nature as well as in size. The Miller-Orr cash management model is developed for the companies that witness unpredictable cash inflows and outflows. This model specifies for setting two control limits for setting lower and upper cash equilibrium limits and assessing the return point (target cash balance). This is different from the Baumol Model which is based on the premise that cash flows are constant in nature. Company also needs to determine the return point or the target cash balance. If the company's cash flows fluctuate unexpectedly and reach the upper limit, the company buys enough marketable securities to return to come back to the

regular cash balance level or you can say to the return point. However, if the firm's cash flows fluctuate and hit the lower limit then it sells sufficient marketable securities to restore the cash balance to the normal level or the return point. The difference between upper control limit and lower control limit is determined on the basis of the following three factors;

- a) Transaction cost(tc)
- b) Standard deviation( $\sigma$ )
- c) Interest Rate(i)

The formula for determining the distance between upper and lower limit that is termed as z or spread is depicted as under;

$$(\text{Upper limit} - \text{Lower limit}) = \sqrt[3]{\frac{\frac{3}{4} \times tc \times \sigma^2}{i}}$$

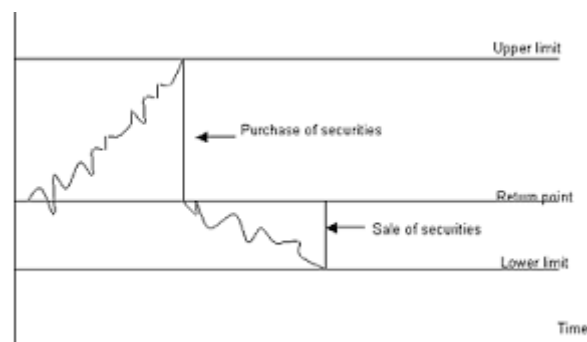
Or could be written as

$$(\text{Upper limit} - \text{Lower limit}) = \left( \frac{3}{4} \times \text{Transaction Cost} \times \text{Cash Flow Variance} / \text{Interest per day} \right)^{1/3}$$

$$\text{Upper Limit} = \text{Lower limit} + 3z$$

$$\text{Return Point} = \text{Lower limit} + z$$

$$\text{Average Cash balance} = \text{Lower limit} + 0.75z$$



**Fig 16.5 Miller-Orr Model**

This is different from the Baumol's model, as it is based on the following assumptions;

- a) Cash flows pattern is stochastic in nature and there is no underlining trend in the cash balance.
- b) The cash spending rate is constant.

- c) A company can have different cash payments per day, as well as different cash receipts.
- d) There is a possibility of investing surplus cash in marketable securities.

ABC Ltd. has a policy of maintaining Rs 1, 00,000 as cash level. The following information is provided by ABC Ltd to you for determining Lower Limit and Return point under Miller-Orr Model;

Standard deviation of the company cash flow=10,000

Annual interest rate 10%

Transaction cost Rs 50

$$Z = \sqrt[3]{\frac{\frac{3}{4} \times tc \times \sigma^2}{i}}$$

$$= \sqrt[3]{\frac{\frac{3}{4} \times 50 \times 10000^2}{.10/360}}$$

Upper Limit= Lower limit+3z

= 200000+3( 23811.0158)

=271433.0474

Return Point= Lower limit + z

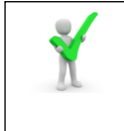
= 200000+23811.0158

=223811.0158

### 16.7.3 STONE'S UNCERTAINTY MODEL

This model was explained by BK Stone in “ The Use of Forecasts and Smoothing in Control Limit Models for Cash Management”. This model also has the same foundations as of Miller-orr Model as far as control-limits are concerned. His model is a little extension to Miller orr Model in the sense that when approaching an upper or lower limit it is very much likely that the cash surplus or deficit may naturally correct itself. This means he identifies two sets of limits that are outer and inner limit. If the outer limits are crossed in this model then the finance manager will not do a transaction but will initiate to do analysis to determine the predicted pattern of cash flows in coming days. If the cash balance is expected to return

within the internal limits in the coming days, then he will not initiate any transaction. However, if there is deviation then he will find the target balance and the closing balance, then the buying and selling of securities may take place so that the closing balance at the given point of time is equal to the target balance. Hence, the Stone Model takes cash flow forecast into consideration.



### ***Check Your Progress-B***

**Q1. What do you mean by Concentration Banking?**

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**Q2. What is Baumol Model of determining optimum cash level for a firm?**

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**Q3. What are the basic assumptions of Miller-Orr Model?**

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## **16.8 TREASURY MANAGEMENT**

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Treasury Management involves planning, raising, organizing, directing, and controlling funds and working capital of the enterprise so that optimum use of funds can be possible while maintaining liquidity, profitability and reducing the overall cost of funds together with mitigating operational and financial risk. Treasury management is defined as ‘the corporate 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. (Kishore Ravi) Treasurers are usually responsible for liquidity risk management, market risk management, credit risk management, and organizational risk management.

The following are the key aspects of Treasury Management;

- i. It helps in managing cash and near-cash assets.
- ii. It helps in reconciling bank statement.
- iii. It helps in formulating the capital structure of an organization depending upon the goals and objectives of the company.
- iv. It helps in the credit management of the company.
- v. It helps in establishing credit policy regarding decisions about trade discount, credit terms and receivables aging schedules.
- vi. It focuses on maintaining liquidity, or solvency of the company.
- vii. It helps in establishing liaison with bankers, financial institutions and investors.
- viii. It helps in managing currency, transaction, and translation exposure during international business operations.
- ix. It helps in tax management, insurance, and investment management.
- x. It helps in regulating the transmission of funds from various divisions and units to the headquarters and *vice versa*.
- xi. It helps in investing surplus funds in marketable securities for the short term.
- xii. It helps in determining various types of floats and making them useful for the fund management.

In nutshell, the following are the functions of a Treasurer;

- a) Cash forecasting, budgeting and planning
- b) Working Capital Monitoring
- c) Currency Management
- d) Fund Planning and Management
- e) Financial Planning and Budgeting
- f) Financial reporting, bookkeeping and record-keeping
- g) Capital assets and stock monitoring
- h) Risk Management
- i) Credit rating agency relations
- j) Liquidity Management
- k) Trading and Arbitrage

Cash Management is closely associated with treasury management. It helps in fulfilling short term needs regarding the availability of cash at a given point of time so as to find the deficit and surplus in the cash position.

Further, the controller of a company has to record the transactions of these cash and near-cash assets. Treasurer, as well as Controller, should work synchronously to establish an effective control system. The Internal Control System should be established in such a way that it reduces errors, discrepancies, and financial misconducts and wrongdoing. Such system should act as a whistle blower so that it can find as well as prevent it. If a proper monitoring system is introduced, it immediately shows the weakness of the cash management strategies, receivables, discounts, expenditure, etc.

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## 16.9 MARKETABLE SECURITIES

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Marketable Securities is an important aspect in cash management as they provide avenues of investment for the short term period and can promptly be converted into cash as per the requirement. Hence, these securities serve liquidity as well as profitability to an organization. These are short term money market instruments that can be converted into cash as and when needed. These marketable securities typically have maturities of less than a year. Since they have high liquidity, these investments are perfect for working where working capital needs are fluctuating. Since, we discussed in the previous sections that idle cash provides no explicit returns therefore surplus cash balance should be invested in the marketable securities. A firm should hold as much cash balance that is required for the normal functioning of the business. Further, some reserve should be kept for the precautionary purpose and the remaining surplus amount should be invested in short-term liquid securities to earn interest. While investing in marketable securities the following factors should be considered by the company;

- 1) Safety-The basic factor while investing marketable securities is selecting securities that have no risk of default in interest or principal repayment. In the case of short term investment finance manager can forgo higher returns for the safety of principal and interest.
- 2) Maturity- The length of time for which surplus cash is expected for availability should be matched with the maturity of marketable securities. For removing financial distress, a company should invest in the marketable security for the shorter duration than the expected availability period.
- 3) Marketability-Marketability means convenience and accessibility of converting securities into cash. Hence, companies should invest in securities which can be sold quickly without loss.
- 4) Liquidity- Liquidity means the ability of conversion of an asset into cash. Therefore, a company should ensure that the selected investment vehicle should be easily, speedily, and conveniently be converted into cash.
- 5) Taxability- Securities exempted from tax are offered on the market at a lower yield than other securities with the same maturity. Therefore, the tax aspect should be considered when choosing marketable securities for investment.

Types of Marketable securities are;

Bank deposits- Investing surplus funds in short term deposit schemes in the banks.

Intercompany deposits are investing excess cash in other firms as deposits however for the short term. Generally, these are from three months to one year.

Bill discounting- Company with surplus funds can also discount the bills of other firms or companies in similar patterns as it is done by commercial banks.

Treasury bills- These are one of the most preferred investments for surplus funds for the short term. These are issued by RBI for different maturity periods. These are considered as highly safe and easily marketable investments.

Commercial papers are short term unsecured securities issued by highly creditworthy companies.

Money market fund is a type of mutual fund that invests only in highly liquid and short-term and high credit rating securities.

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## 16.10 SUMMARY

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In this unit we discussed about cash management that is efficient cash collection and cash disbursement. Cash Management involves temporarily investment of idle cash with the company. Cash management strategies are concerned with managing liquidity as well as profitability so that company may have win –win situation on these fronts. But balancing these twin objectives is really challenging for a company. This happens if a company is holding excessive cash then the company will carry opportunity cost of profits or returns and on the contrary, if a company has a cash shortage due to excessive investments then it will severely impact the manufacturing process. Since, there is a lack in synchronization between cash outflows and cash inflows, therefore it is pertinent to identify the timings and amount of future cash flows. Cash Budget depicts the amount of cash receipts and cash payments or you can say it represents cash inflows and outflows over a given period of time. In this unit you also learned various models for determining optimum cash level in the company. In the next unit, you will be apprised with another aspect of working capital that is inventory management.



## 16.11 GLOSSARY

**Cash:** The term is generally used for both cash, deposits in bank and marketable securities i.e. assets which are near to cash.

**Operating Cycle:** It is the time period required to convert sales after the conversion of resources into inventories and later in cash.

**Production Cycle:** The cycle commencing from holding of raw material or components and computing with finished goods production is known as 'Production Cycle'.

**Treasury Management:** It involves planning, raising, organizing, directing and controlling funds and working capital of the enterprise so that optimum use of funds can be possible while maintaining liquidity, profitability and by reducing overall cost of funds together with mitigating operational and financial risk.



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## 16.14 TERMINAL QUESTIONS

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- Q1. Discuss Baumol's Model of Cash Management.
- Q2. What are the main motives for holding cash and near cash assets?
- Q3. Discuss the importance of cash budgeting.
- Q4. Discuss some of the strategies of cash management. Using hypothetical example show the cash management cycle.
- Q5. What is the importance of speedy receivables collection? Also explain concentration banking and lockbox system.
- Q6. What is lock box system and how it is used to reduce cash balances.
- Q7. Explain the procedure of preparing cash budget.