CHAPTER: - 7

Analysis of Cash Management

INTRODUCTION:

"Cash, like the blood stream in the human body, gives vitality gnd strength to a business enterprises."[1] Though cash hold the smallest portion of total current assets. However, "Cash is both the beginning and end of working capital cycle - cash, inventories, receivables and cash."[2'] it is the cash, which keeps the business going. Hence, every enterprises has to hold necessary cash for its existence."[3] Moreover, "Steady and healthy circulation of cash throughout the entire business operations is the basis of business solvency." [A] Now-a-days non-availability and high cost of money have created a serious problem for industry. Nevertheless, cash like any other asset of a company is treated as a tool of profit." Further, "today the emphasis is on the right amount of cash, at the right time, at the right place and at the right cost."[5] In the words of R.R. Bari, "Maintenance of surplus cash by a comoany unless there are special reasons for doing so, is regarded as a bad sigh of cash management."[6] As, "holding of cash balance has an implicit cost in the form of its opportunity cost."[7]

Cash may be interpreted under two concepts. In narrow sense, "Cash is very important business asset, but although coin and paper currency can be inspected and handled, the major part of the cash of most enterprises is in the form of bank checking accounts, which represent claims to money rather than tangible property." [6] While in broader sense, "Cash consists of legal tender, cheques, bank drafts, money orders and demand deposits in banks. In general, nothing should be considered unrestricted cash unless it is available to the management for disbursement of any nature." [9]Thus, from the above quotations we may conclude that in narrow sense cash means cash in hand and at bank but in wider sense, it is the deposit in banks, currency, cheques, bank draft etc. in addition to cash in hand and at bank. "Cash management includes management of marketable securities also, because in modern terminology money comprises marketable securities and actual cash in hand or in bank."[10]

"The concept of cash management is not new and it has acquired a greater significance in the modern world of business due to change that took place in the conduct of business and ever increasing difficulties and the cost of borrowing."[11] Apart from the fact that it is the most liquid current assets, cash is the common denominator to which all current assets can be reduced because the other current assets i.e. receivables and inventory get eventually converted into cash.[12] This underlines the significance of cash management.

MEANING AND DEFINITION:

The term cash management refers to the management of cash resource in such a way that generally accepted business objectives could be achieved. In this context, the objectives of a firm can be unified as bringing about consistency between maximum possible profitability and liquidity of a firm. Cash management may be defined as the ability of a management in recognizing the problems related with cash which may come across in future course of action, finding appropriate solution to curb such problems if they arise, and finally delegating these solutions to the competent authority for carrying them out The choice between liquidity and ij profitability creates a state of confusion. It is cash management that can provide solution to this dilemma.Cash management may be regarded as an art that assists in establishing equilibrium between liquidity and profitability to ensure undisturbed functioning of a firm towards attaining its li business objectives.

Cash itself is not capable of generating any sort of income on its own. It rather is the prime requirement of income generating sources and functions. Thus, a firm should go for minimum possible balance of cash, yet maintaining its adequacy for the obvious reason of firm's solvency. Cash management deals with maintaining sufficient quantity of cash in such a way that the quantity denotes the lowest adequate cash figure to meet business obligations. Cash management involves managing cash flows (into and out of the firm), within the firm and the cash balances held by a concern at a point of time. The words, 'managing cash and the cash balances' as specified above does not mean optimization of cash and near cash items but also point towards providing a protective shield to the business obligations. "Cash management is concerned with minimizing unproductive cash balances, investing temporarily excess cash advantageously and to make the best possible arrangement for meeting planned and unexpected demands on the firms' cash."[13]

GENERAL PRINCIPLES OF CASH MANAGEMENT:

Harry Gross has suggested certain general principles of cash management that, essentially add efficiency to cash management. These principles reflecting cause and effect relationship having universal applications give a scientific outlook to the subject of cash management. While, the application of these principles in accordance with the changing conditions and business environment requiring high degree of skill and tact which places cash management in the category of art. Thus, we can say that cash management like any other subject of management is both science and art for it has well-established principles capable of being skillfully modified as per the requirements. The principles of management are follows as -

1. Determinable Variations of Cash Needs

A reasonable portion of funds, in the form of cash is required to be kept aside to overcome the period anticipated as the period of cash deficit. This period may either be short and temporary or last for a longer duration of time. Normal and regular payment cf cash leads to small reductions in the cash balance at periodic intervals. Making this payment to different employees on different days of a week can equalize these reductions. Another technique for balancing the level of cash is to schedule i cash disbursements to creditors during that period when accounts receivables collected amounts to a large sum but without putting the goodwill at stake.

2. Contingency Cash Requirement

There may arise certain instances, which fall beyond the forecast of the management. These constitute unforeseen calamities, which are too difficult to be provided for in the normal course of the business. Such contingencies always demand for special cash requirements that was not estimated and provided for in the cash budget. Rejections of wholesale product, large amount of bad debts, strikes, lockouts etc. are a few among these contingencies. Only a prior experience and investigation of other similar companies prove helpful as a customary practice. A practical procedure is to protect the business from such calamities like bad-debt losses, fire etc. by way of insurance coverage.

3. Availability of External Cash

Another factor that is of great importance to the cash management is the availability of funds from outside sources. There resources aid in providing credit facility to the firm, which materialized the firm's objectives of holding minimum cash balance. As such if a firm succeeds in acquiring sufficient funds from external sources like banks or private financers, shareholders, government agencies etc., the need for rnaintaining cash reserves diminishes.

4. Maximizing Cash Receipts

Every financial manager aims at making the best possible use of cash receipts. Again, cash receipts if tackled prudently results in minimizing cash requirements of a concern. For this purpose, the comparative cost of granting cash discount to customer and the policy of charging interest expense for borrowing must be evaluated on continuous basis to determine the futility of either of the alternative or both of them during that particular period for maximizing cash receipts. Yet, the under mentioned techniques proved helpful in this context: -

(A)Concentration Banking: Under this system, a company establishes banking centers for collection of cash in different areas. Thereby, the company instructs its customers of adjoining areas to send their payments to those centers. The collection amount is then deposited with the local bank by these centers as early as possible. Whereby, the collected funds are transferred to the company's central bank accounts operated by the head office.

(B)Local Box System: Under this system, a company rents out the local post offices boxes of different cities and the customers are asked to \ forward their remittances to it. These remittances are picked by the authorized lock bank from these boxes to be transferred to the company's central bank operated by the head office.

(C)Reviewing Credit Procedures: It aids in determining the impact of slow payers and bad-debtors on cash. The accounts of slow paying customers should be reviewed to determine the volume of cash tied up. Besides this, evaluation of credit policy must also be conducted for introducing essential amendments. As a matter of fact, too strict a credit policy involves rejections of sales. Thus, curtailing the cash in flow. On the other hand, too lenient, a credit policy would increase the number of slow payments and bad debts again decreasing the cash inflows.

(D)Minimizing Credit Period: Shortening the terms allowed to the customers would definitely accelerate the cash inflow side-by-side revising the discount ofered would prevent the customers from using the credit for financing their own operations profitably.

(E)Others: Introducing various procedures for special handling of large to very large remittances or foreign remittances such as, persona! pick up of large sum of cash using airmail, special delivery and simitar techniques to accelerate such collections.

5. Minimizing Cash Disbursements

The motive of minimizing cash payments is the ultimate benefit derived from maximizing cash receipts. Cash disbursement can be brought under control by preventing fraudulent practices, serving time draft to creditors of large sum, making staggered payments to creditors and for payrolls etc.

6. Maximizing Cash Utilization

Although a surplus of cash is a luxury, yet money is costly. Moreover, proper and optimum utilization of cash always makes way for achievement of the motive of maximizing cash receipts and minimizing cash payments. At times, a concern finds itself with funds in excess of its requirement, which lay idle without bringing any return to it. At the same time, the concern finds it unwise to dispose it, as the concern shall soon need it. In such conditions, efforts should be made in investing these funds in some interest bearing securities.There are

certain basic strategies suggested by Gitman, which prove evidently helpful in managing cash if employed by the cash management. They are:

"Pay accounts payables as late as possible without damaging the firm's credit rating, but take advantage of the favourable cash discount, if any.

Turnover, the inventories as quickly as possible, avoiding stock outs that might result in shutting down the productions line or loss of sales.

Collect accounts receivables as early as possible without losing future loss sales because of high-pressure collections techniques. Cash discounts, if they are economically justifiable, may be used to accomplish this objective."[14]

FUNCTION OF CASH MANAGEMENT:

"Cash management is concerned with minimizing unproductive cash balances, investing temporarily excess cash advantageously and to make the best possible arrangements for meeting planned and unexpected demands on the firm's cash."[15] Cash Management must aim to reduce the required level of cash but minimize the risk of being unable to discharge claims against the company as they arise. All these aims and motives of cash management largely depend upon the efficient and effective functioning of cash management. Cash management functions can be studied under five heads, namely, cash planning, managing cash flow, controlling cash flow, optimizing the cash level and investing idle cash. All these functions are discussed below in details:

1. Cash Planning

Good planning is the very foundation of attaining success. For any management decision, planning is the foremost requirement. "Planning is basically an intellectual process, a menfal pre-disposition to do things in an orderly way, to think before acting and to act in the light of facts rather than of a guess." [16] Cash planning is a technique, which comprises of planning for and controlling of cash. It is a management process of forecasting the future need of cash, its available resources and various uses for a specified period. Cash planning, thus, deals at length with formulation of necessary cash policies and procedures in order to carry on business continuously and on sound lines. A good cash planning aims at providing cash, not only for regular but also for irregular and abnormal requirements.

2.Managing Cash Flows

The heading simply suggests an idea of managing properly the flow of cash coming inside the business i.e. cash inflow and cash moving out of the business i.e. cash outflow. These two are said to be properly managed only, if a firm succeeds in accelerating the rate of cash inflow together with minimizing the cash outflow. As observed expediting collections, avoiding unnecessary inventories, improving control over payments etc. contribute to better management of cash. Whereby, a business can conserve cash and thereof would require lesser cash balance for its operations.

3. Controlling the Cash Flows

As forecasting is not an exact science because it is based on certain assumptions. Therefore, cash planning will inevitably be at variance with the results actually obtained. For this reason, control becomes an unavoidable function of cash management. Moreover, cash controlling becomes essential as it increases the availability of usable cash from within | the enterprise. As it is obvious that greater the speed of cash flow cycle, I greater would be the number of times a firm can convert its goods and ' services into cash and so lesser will be the cash requirement to finance the desired volume of business during that period. Furthermore, every enterprise is in possession of some hidden cash, which if traced out substantially decreases the cash requirement of the enterprise.

4. Optimizing the Cash Level

A financial manager should concentrate on maintaining sound liquidity position i.e. cash level. All his efforts relating to planning, managing and controlling cash should be diverted towards maintaining an optimum level of cash. The foremost need of maintaining optimum level of cash is to meet the necessary requirements and to settle the obligations well in time. Optimization of cash level may be related to establishing equilibrium between risk and the related profit expected to be earned by the company.

5.Investing Idle Cash

Idle cash or surplus cash refers to the excess of cash inflows over cash outflows, which do not have any specific operations or any other purpose to solve currently. Generally, a firm is required to hold cash for meeting working needs facing contingencies and to maintain as well as develop goodwill of bankers.

The problem of investing this excess amount of cash arise simply because it contributes nothing towards profitability of the firm as idle cash precisely earns no returns. Further permanent disposal of such cash is not possible, as the concern may again need this cash after a short while. But, if such cash is deposited with the bank, it definitely would earn a nominal rate of interest paid by the bank. A much better returns than the bank interest can be expected if a company deploys idle cash in marketable securities. There are yet another group of enterprise that neither invest in marketable securities nor willing to get interest instead they prefer to deposit excess cash for improving relations with banks by helping them in meeting bank requirements for compensating balances for services and loans.

MOTIVES OF HOLDING CASH:

Every business transaction whether carried on credit or on cash basis ultimately results in either cash inflow or cash outflows. The pivotal point in present day financial management is to maximize cash generation and to minimize cash outflows in relation to the cash inflows.[17] Keynes postulated three motives for holding cash:-

1. *"Transaction Motive,*
2. *Precautionary Motive, and*
3. *Speculative Motive."*[18]

To which one more motive for holding cash has been added:-

4. *Compensation Motive*

1. Transaction Motive

It refers to holding of cash for meeting routine cash requirements and financing transactions carried on by the business in the normal course of action. This motive requires cash for payment of various obligations like purchase of raw materials, the payment of usage and salaries, dividend, income tax, various other operating expenses etc. However, there exists regular and counter inflow of cash in the business by way of return on investments, sales etc. However, cash receipts and cash payments do not perfectly synchronies with each other. Therefore, a firm requires an additional cash balance during the periods when payments are in excess of cash receipts. Thus transaction motive stresses on holding cash to meet anticipated obligations that are not counter balanced by cash receipts due to disparity of timings.

2. Precautionary Motive

Under precautionary motive, the need to hold cash arises for meeting any unforeseen, unpredicted contingencies or unexpected disbursements. Such motives provide a cushion to withstand unexpected cash requirements arising spontaneously at short notice due to various causes.In this regard, two factors largely influence the precautionary cash balance, degree of predictability and availability of short-term credit. If a cash management succeeds in estimating the cash requirements adequately, it escapes from maintaining big cash balance for emergency. Likewise, if a management is capable and efficient enough to borrow the required cash from short-term creditors small balance would be held and vise-versa. 'Ready borrowing power is the best antidote to emergency cash drains and facilitates release of available cash resources for remunerative

3. Speculative Motive

The speculative motive finds its origin out of the desire of an enterprise to avail itself the benefits of the opportunities arising at unexpected moments that do not happen to exist in the normal course of business. This motive represents a positive and aggressive approach. Reasonable cash reserve is maintained by concerns for exploiting profitable opportunities like bulk purchase of raw materials at discounted prices, purchasing securities when interest rates are expected to fall, postpone purchase of raw material if decline in prices is anticipated, etc.

4. Compensation Motive

Such motives require holding cash balance in case the concern enters into some loan agreement with the bank. Bank provides a great variety of services to its customers. For some of such services it charges commission or fee. While for other an indirect compensation is demanded by it by asking its customers to keep a minimum bank balance sufficient to earn a return equal to cost of services provided by it. Such balances are termed as compensating balances.

FINANCING OF CASH SHORTAGE AND COST OF RUNNING OUT OF CASH:

A situation arises, when the cash outflows of a firm exceeds its inflows during a certain period. Such situation creates cash shortage in a firm. Shortage of cash is highly undesirable in all sort of business holding for the reason of dreadful consequences that it bears. A management is deemed to be over-cautious and highly careful while dealing with the problem of cash shortage even if cash inflows are anticipated in the near future; else a

concern may even reach the stage of final liquidation. Cash flow statement should be prepared to acknowledge the repercussions of transactions involving the movement of cash. As "Cash flow statement is made to show the impact of various transactions on the cash position of a firm, it takes into consideration only such transactions that have relationship with cash."[20]

In case of temporary shortage of cash, a concern is required to procure essential cash immediately for the anticipated short duration, so as the curb it at the very stage instead of sustaining the long-term implication later on. 'The immediate source to fall back upon remains the bank credit.”[21] In fact, bank credit is a means to meet cash shortages as well as source of financing the current assets. The various methods from which a [firm can procure funds during the period when its outflows exceed the inflows are stated below -(i) Using bank credit tine, (ii) Raising loans from institutions and creditors other than banks. (Hi) Liquidity marketable securities, (IV) Resorting to bills discounting schemes, (v) Disposing off surplus fixed assets, (vi) Sheding the quantity of raw materials, (vii) Unloading finished goods even at loss, (viii) By delaying payments.

As a piece of advice, it is recommended by the financial experts that a cash management should not start searching for external finance at the very instance when the cash shortage is anticipated. At the initial stage, a management should take appropriate steps to avoid or minimize the undesirable situation of emerging cash shortage by exercising effective! Control over internal resources. In this respect, the matters of special consideration that can be gainfully employed by the concern for overpowering the situation of cash shortage are -(i) Increasing efforts to speedup collection, (ii) Reduction in purchase of inventories, (ii) Increasing cash sales, (iv) Selling-off redundant assets, (v) Selling short-term investments. (vi) Deferment of capital expenditure, (vii) Postponing and delaying payments

These considerations are nothing but mere use of tact and skill to overcome a shortage of cash. They are much economical than any other resources (internal or external) for they cost neither interest nor any expenses. "Even if an external resources has to be found, this might be seen as a bridging operation pending the ability to bring on stream an alternative internal source."[22]

No sooner than a firm becomes aware of approaching shortage of cash than it should concentrate its efforts towards the eradication of such situation. The sooner the shortage is provided for, the better it is. Every Concern escapes itself form lending into such a situation as it makes way for numerous costs because of running out cash. A firm bears not only the burden of unnecessary costs but is subjected to various types of pressures pertaining to its

dealings. All these factors adversely affect the morale of management, causes damages to the hard-earned reputation and financial credit-worthiness etc. A firm is forced to borrow funds at high rates of interest has to accept higher price demand of suppliers, loses cash discount on payments, enter into further negotiations with banks and other financial institutions on account of slow payment.

FINANCING CURRENT ASSETS:

Current assets of enterprises may be financed either by short-term sources or long-term sources or by combination of both. The main sources constituting long-term financing are shares, debentures, and debts form banks and financial institutions. "The long term source of finance provides support for a small part of current assets requirements which is called the working capital margin'[23] Working capital margin is used here to express the difference between current assets and current liabilities.Short-term financing of current assets includes sources of short-term credit, which a firm is mostly required to arrange in advance. Short-term bank loans, commercial papers etc. are a few of its components. Current liabilities like accruals and provisions, trade credit, short-term bank finance, short-term deposits and the like warranting the current assets are also referred to a short-term term sources of finance.Spontaneous financing can also finance current assets, which includes creditors, bills payable, and outstanding receipts. A product firm would always opt for utilizing spontaneous sources fully since it is free of cost. Every concerns that can no more be financed by spontaneous sources of financing has to decide between short-term and long-term source of finance along with relevant proportion of the two. There are three approaches of financing current assets that are popularly used

1. Matching Approach

As the name itself suggests, a financing instrument would offset the current asset under consideration, bearing financing instrument bearing approximately same maturity. In simple words, under this approach a match is established between the expected lives of current asset to be financed with the source of fund raised to finance the current assets. For this, reason a firm would select long-term financing to finance or permanent current assets to finance temporary or variable current assets. Thus, a ten-year loan may be raised for financing machinery bearing expected life of ten years. Similarly, one-month stock can be financed by means of one-month bank loan. This is also termed as hedging approach.

2. Conservative Approach

Conservative approach takes an edge over and above matching approach, as it is practically not possible to plan an exact match in all cases. A firm is said to be following conservative approach when it depends more on long-term financial sources for meeting its financial needs. Under this financing policy, the fixed assets, permanent current assets and even a part of temporary current assets is provided with long-term sources of finance and this make it less risky nature. Another advantage of following this approach is that in the absence of temporary current assets, a firm can invest surplus funds into marketable securities and store liquidity.

3. Aggressive Approach

As against conservative approach, a firm is said to be following aggressive financing policy when depends relatively more on short-term sources than warranted by the matching plan. Under this approach the firm finance not only its temporary current assets but also a part of permanent current assets with short-term sources of finance.In nutshell, it may be concluded that for financing of current assets, a firm should decide upon two important constraints; firstly, the type of financing policy to be selected (whether short-term or long-term and secondly, the relative proportion of modes of financing. This decision is totally based on trade-off between risk and return. As short-term financing is less costly but risky, long-term financing is less risky but costly.

CASH MANAGEMENT IN SELECTED STEEL COMPANIES IN INDIA:

The purpose of the present study would remain half-achieved in the absence of analysis of efficiency of cash management of various steel companies under study, in respect of liquidity of cash and cash position maintained by them. This discussion is forwarded under the following heads: -

1. Size of cash,
2. Components of cash balance,
3. Control of cash flows, and
4. Adequacy of cash.

1. Size of Cash

The size of cash is directly associated with the sales level achieved. There also exists a rule that as sales increase cash also increase but at decreasing rate. However, a sound management system of cash would always attempt at achieving a comparatively lower rate of growth in cash holding than the growth rate of sales. Table 7.1 portrays the quantum of cash held by the selected steel Companies in India from 1999-2000 to 2008-08. The trend percentages are also calculated and shown in the table 7.1.

Table 7.1
Quantum Of Cashof Steel Companies In India.
(From 1999-2000 To 2008-2009)
(Rs. In Crores)

company	J S W Steel Ltd.		Jindal Steel & Alloys Ltd.		Steel Authority Of India Ltd.		Tata Steel Ltd.	
Ratio	Cash in Rs. (Crores)	indices	Cash in Rs. (Crores)	indices	Cash in Rs. (Crores)	indices	Cash in Rs. (Crores)	indices
1999-2000	152.36	100.00	0	100.00	2967.57	100.00	1093.02	100.00
2000-01	180.39	118.40	2.95	0	3045.08	102.61	1455.45	133.16
2001-02	283.7	186.20	41.01	0	1150.67	38.77	1154.13	105.59
2002-03	521.5	342.28	37.3	0	2667.74	89.90	2093.15	191.50
2003-04	853.69	560.31	-0.29	0	7202.56	242.71	2887.84	264.21
2004-05	2002.71	1314.46	-0.42	0	8818.5	297.16	3816.83	349.20
2005-06	1863.59	1223.15	-2.2	0	3647.25	122.90	3579.49	327.49
2006-07	3028.15	1987.50	0.04	0	5613.66	189.17	4896	447.93
2007-08	3846.06	2524.32	n.a	n.a	8139.52	274.28	6254.2	572.19
2008 -09	4009.25	2631.43	n.a	n.a	5908.72	199.11	7397.22	676.77
AVG.	1674.14	1098.81	9.80	12.50	4916.13	165.66	3462.73	316.80
S.D	1513.98	993.69	16.57	31.62	2591.87	87.34	2176.81	199.16
max	4009.25	2631.43	41.01	100.00	8818.50	297.16	7397.22	676.77
min	152.36	100.00	-2.20	0.00	1150.67	38.77	1093.02	100.00

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

The table 7**.1** indicates that in J S W Steel Ltd.the quantum of cash held by it showed a increasing trend throughout the period of study period. In 1999-2000 J S W Steel Ltd. had a cash balance of Rs. 152.36 crores that increased to Rs. 853.69 crores in 2003-04. The highest

amount of cash was Rs. 4009.25 crores in 2008 -09. it can be mentioned that in J S W Steel Ltd the quantum of cash held did not rise with the increase in the size of business. J S W Steel Ltd though had displayed a variable trend in the beginning but it showed decreasing trend in quantum of cash in the last five years of study. J S W Steel Ltd. had the highest of Rs 41.01 crores and the lowest of Rs. -2.20 crores decrease in quantum of cash as compared to base year amount. In Steel Authority Of India Ltd. on an average, the rise in quantum of cash held seems to be in parity with the increase in size of business except during 2005-06 to 2006-07. Steel Authority Of India Ltd. recorded rise in quantum of cash during last three years of study in comparison with the base year 1999-2000.The quantum of cash in Tata Steel Ltd showed progressive trend with an average of Rs 3462.73 crores. The standard deviation was Rs 2176.81 cores.

In nutshell, it may be concluded that on average in J S W Steel Ltd and Steel Authority Of India Ltd the size of cash had been directly proportionate to the size of business except in few years. In Jindal Steel & Alloys Ltd quantum of cash did not supports the increase in business.

3. Control of Cash flows

The main purpose of keeping cash is to meet day-to-day requirements along with sufficient liquidity and adequate profitability. A financial analyst has come to the conclusion that "business enterprises should keep its cash and near-cash reserves below the requirements of one month's normal expenditure. If cash and near cash reserves happen to be more than this limit, it should be taken for granted that excessive cash is being carried by the concern."[24]

In fact, a concern should go for optimizing its cash holdings without impairing the overall liquidity requirements. This can be possibly executed only if a firm exercises tight control over cash flows. A concern in this respect may develop a trend or pattern from its past records and experience or a comparative study of its own cash balances with that of other concerns of the same industry may also be conducted for framing a line of control. This may help the concern in determining the extent of cash balances and in avoiding risk of holding excess cash balance in the business. The following ratios are considered helpful in this respect: -

(A)Cash to Current Ratio

A concern shall under all possibilities avoid holding unnecessary cash balance as it affects the profitability of a concern adversely. Moreover, idle cash is devoid of generating any earning as well as it involves cost. Further during inflation cash losses its purchasing power over a time period. A downward trend in this ratio over period of time indicates a

tighter control of cash whereas an upward trend reveals a slack control over cash resources. [25] The lower the ratio the greater may be the profitability of the concern.

'In a comfortably financed business it will probably run not 5 to 10 percent of current assets. Since current liabilities are not expected to exceed one-half of the current assets, cash percentage should not run under 10 to 20 percent of the same.'[26] Sometimes debtors and cash are taken together in such a case, 'it may be stated in a general way that cash and debtors together should be 50 percent of and stock and other assets should be remaining 50 percent of the total current assets."[27] Table 7.3 shows the cash to current assets ratio in selected steel Companies in India from 1999-2000 to 2008-09.

Table 7.2
Cash to Current Assets Ratio Of steel Companies in India.
(From 1999-2000 to 2008-2009)

(In Percentage)

cash to current assets	J S W Steel Ltd.		Jindal Steel & Alloys Ltd.		Steel Authority Of India Ltd.		Tata Steel Ltd.	
Ratio	cash to c.a	indices	cash to c.a	indices	cash to c.a	indices	cash to c.a	indices
1999-2000	23.39	100.00	0.00	0.00	37.60	100.00	40.87	100.00
2000-01	28.25	120.77	4.62	100.00	37.41	99.51	52.67	128.87
2001-02	43.58	186.29	71.21	1540.80	16.79	44.67	44.42	108.69
2002-03	71.82	307.03	189.63	4103.05	37.60	100.00	68.01	166.41
2003-04	85.31	364.67	-4.52	-97.89	89.75	238.70	121.41	297.07
2004-05	106.00	453.13	-7.69	-166.44	62.13	165.26	125.35	306.72
2005-06	72.51	309.98	-30.05	-650.30	23.49	62.48	104.80	256.42
2006-07	122.37	523.12	0.48	10.47	28.57	76.00	44.41	108.66
2007-08	125.61	536.97	n.a	n.a	31.25	83.11	154.53	378.12
2008 -09	104.03	444.72	n.a	n.a	17.36	46.18	111.16	272.00
AVG.	78.29	334.67	27.96	604.96	38.20	101.59	86.76	212.30
S.D	37.21	159.06	64.15	1387.93	22.31	59.35	41.38	101.25
max	125.61	536.97	189.63	4103.05	89.75	238.70	154.53	378.12
min	23.39	100.00	-30.05	-650.30	16.79	44.67	40.87	100.00

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

The table 7.3 presents that J S W Steel Ltd had the increasing cash to current assets ratio during the study period having some fluctuations. The ratio was 23.39 percent in 1999-2000, which was increased to 85.31 per cent in 2003-04. It indicates that the control on cash is not tight during the study period. Jindal Steel & Alloys Ltd had the ratio of cash to current assets varying between 189.63 per cent and -30.05 per cent. Its ten year average had been

27.96 per cent, which indicates lack of control over cash resources. Steel Authority Of India Ltd had desirable level of cash to current assets ratio during the study period as indicated by the ten-year average 38.20 per cent cash management in Steel Authority Of India Ltd cannot be regarded good due to the steep variations evidenced in ten years study. Cash to current assets ratio 40.87 percent in 1999-2000 and increased to 125.35 percent in 2004-05 and in the last 111.16 percent with an average of 86.76 percent. The standard deviation was 41.38 percent. The ratio showed increasing trend during the study period. It may be concluded from the analysis that the steel Companies had very high cash to current assets ratio. They should avoid holding unnecessary cash balance as it affects the profitability and adversely. Further, among the three units selected for the study. Steel Authority Of India Ltd. and Tata Steel Ltd. may regard the J S W Steel Ltd cash management well followed.

(B)Cash to Sales Ratio

It is one of the most important ratios of assessment of control of cash flows. This ratio provides a deep insight into the amount of cash balance held by a concern. In the words of Professor John Sengan, "The increase in sales is generally associated with larger bank balances."[28] the growth of which will increase decrease as the size of business increases."[29] Table 7.4 illustrates the cash to sales ratio of the selected steel Companies during the study period.

Table 7.3
Cash To Sales Ratio Of Steel Companies In India.
(From 1999-2000 To 2008-2009) (In Percentage)

company	JSWSL		JS&AL		SAOI		TSL	
Ratio	cash to sales	indices	cash to sales	indices	cash to sales	indices	cash to sales	indices
1999-2000	16.39	100.00	0.00	0.00	18.19	100.00	17.75	100.00
2000-01	13.40	81.75	1.09	100.00	18.71	102.83	20.22	113.91
2001-02	14.18	86.53	16.43	1501.53	7.39	40.61	15.20	85.58
2002-03	18.72	114.20	18.96	1732.19	13.79	75.80	21.38	120.44
2003-04	23.78	145.06	-0.28	-25.20	29.55	162.40	24.23	136.48
2004-05	28.46	173.66	-0.49	-45.04	27.66	152.01	24.05	135.48
2005-06	27.40	167.17	-36.67	-3350.21	11.26	61.91	20.89	117.67
2006-07	32.57	198.71	0.62	56.84	14.28	78.48	24.77	139.51
2007-08	30.72	187.45	n.a	n.a	17.82	97.92	28.19	158.75
2008 -09	26.50	161.66	n.a	n.a	12.12	66.60	27.56	155.21
AVG.	23.21	141.62	-0.04	-3.74	17.08	93.86	22.42	126.30
S.D	7.03	42.89	14.82	1353.79	7.01	38.55	4.13	23.25
max	32.57	198.71	18.96	1732.19	29.55	162.40	28.19	158.75
min	13.40	81.75	-36.67	-3350.21	7.39	40.61	15.20	85.58

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

The table N0.7.4 reveals that on average cash to sales ratio had been 23.21 per cent in JSWSL during the ten years under study. It can be observed that the ratio showed increasing trend and on average increased by 41.62%. It was the lowest at 13.40 percent in 2000-01. JS&AL, on the other side had -0.04 percent of ten years average of cash to sales ratio but the ratio had hiked more during the last three years under study indicating that proportionate rise in cash held by the company had been more than the sales affected by SAOI during these years. SAOI had the highest average of cash to sales ratio (22.42 per cent) among all the selected concerns. It can be observed that TSL had huge amount of cash lying idle, which could have been fruitfully utilized.It may be concluded that the steel companies had high liquid cash position which indicates under utilization of cash. The indices of cash to sales ratio discloses that JSWSL had a good hand in managing his cash affairs during the study period.

(C) Cash Turnover Ratio

It is yet another measure of assessing the sufficient of cash. Cash turnover ratio is calculated by dividing the amount of total sales by the amount of total sales by the amount of total cash available at the end of the accounting year. It indicates the number of days for which the particular amount of cash held was sufficient to finance the business operations. If a firm turnover its cash larger number of times, it can finance a larger volume of sales with relatively lesser cash resources. Thereby, increasing the profitability of a concern. While a declining trend in this ratio exhibits firm's failure utilizing the available resources to its optimum. Table 7.5 provides the figure of cash turnover ratio of steel companies during the study period.

Table 7.4
Cash Turnover Ratio Of Steel Companies In India.
(From 1999-2000 To 2008-2009)

(Ratio in Times)

company	JSWSL		JS&AL		SAOI		TSL	
Ratio	Cash turnover ratio	indices	Cash turnover ratio	indices	cash turnover ratio	indices	cash turnover ratio	indices
1999-2000	6.10	100.00	0.00	0.00	5.50	100.00	5.63	100.00
2000-01	7.46	122.32	91.37	100.00	5.35	97.25	4.94	87.79
2001-02	7.05	115.57	6.09	6.66	13.53	246.22	6.58	116.84
2002-03	5.34	87.56	5.27	5.77	7.25	131.92	4.68	83.03

2003-04	4.21	68.94	-362.55	-396.80	3.38	61.58	4.13	73.27
2004-05	3.51	57.58	-202.88	-222.04	3.62	65.78	4.16	73.81
2005-06	3.65	59.82	-2.73	-2.98	8.88	161.52	4.79	84.98
2006-07	3.07	50.32	160.75	175.93	7.00	127.42	4.04	71.68
2007-08	3.25	53.35	n.a	n.a	5.61	102.12	3.55	62.99
2008 -09	3.77	61.86	n.a	n.a	8.25	150.15	3.63	64.43
AVG.	4.74	77.73	-38.09	-41.68	6.84	124.40	4.61	81.88
S.D	1.63	26.70	148.17	162.16	2.96	53.91	0.94	16.67
max	7.46	122.32	160.75	175.93	13.53	246.22	6.58	116.84
min	3.07	50.32	-362.55	-396.80	3.38	61.58	3.55	62.99

Sources: Annual Reports of steel Companies from 1999-2000 to 2008-2009

The table No.**7.4** reveals s that JSWSL had average cash turnover ratio of 4.74 times. The ratio shows a decreasing trend throughout the period of study having some fluctuations. It was 6.10 times in 1999-2000, which Increased to 4.21 times in 2003-04 with an average of 4.74 times. The cash turnover ratio of JS&AL had fluctuated in the beginning of study period and there after it showed decreasing trend. The ratio was the highest at 160.75 times in 2006-07 and the lowest at -362.55 times in 2003-04 with The ten year average ratio worked out at 6.84 times. The cash turnover ratio in SAOI had also showed fluctuating trend. It ranged between 13.53 times and 3.38 times. The average of cash turnover ratio had been 6.84times.The cash turnover of TSL was showing downward trend with an average of 4.61 times. The standard deviation was 0.94 times.

Overall, it may be concluded that there were a very low cash turnover ratio in steel companies under study. It indicates surplus of cash balance. Among the three companies the turnover ratio of SAOI was the best followed by JSWSL, JS&AL and TSL

(D) Cash Position Ratio

It may be calculated as the ratio of cash to current liabilities. It helps in analyzing the level of liquid resources in relation to current obligations. For this purpose, cash is used in broader sense, which includes cash balance, bank balance and marketable securities. A higher cash position ratio implies that the firms unable to make profitable use of cash resources. So, lower the ratio of cash to current liabilities, favorable it is. While, the standard norm set for cash position ratio is 0.5:1. Table 7.6 reveals the cash position of selected steel Companies from 1999-2000 to 2008-09.

Table 7.5

Cash Position Ratio Of steel Companies in India.
(From 1999-2000 to 2008-2009)

(**Ratio in Percentage**)

Companies	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	AVG.	S.D	max	min
JSWSL	11.20	13.69	18.08	40.94	94.08	106.74	86.73	131.93	93.37	53.04	64.98	43.20	131.93	11.20
JS&AL	0.00	3.57	43.80	41.98	-0.41	-0.64	-3.72	0.07	n.a	n.a	10.58	18.23	43.80	-3.72
SAOI	46.68	42.02	15.76	33.58	73.19	78.99	31.00	46.94	57.10	32.64	45.79	19.55	78.99	15.76
TSL	41.43	48.61	56.54	50.15	66.46	72.17	67.93	73.79	78.94	73.39	62.94	12.81	78.94	41.43
avg.	24.83	26.97	33.55	41.66	58.33	64.32	45.48	63.18	76.47	53.02	46.07	23.45	83.42	16.17

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

It is evident from the table. 7.6 That Cash position of JSWSL sustained its current obligations, as its average cash position ratio had been recorded at 64.98 per cent for the ten-year period under study. The ratio indicates over utilization of liquid funds. Contrary to this, JS&AL had the cash position ratio of 10.58 percent indicating liquid position of cash along with its sufficiency in meeting current obligation. Similar had been the case of SAOI, which had shown very good results during the last three years of study. Among selected steel companies, JSWSL and JS&AL had displayed sufficient liquidity level while the JS&AL had not sufficient cash to meet its current obligations. Table No. 7.6 gives a clear picture of Cash to current liabilities ratio of steelt companies in India by the four companies. In Cash to current liabilities of all the steel companies shows fluctuating trend throughout the study period. The minimum Cash to current liabilities in JSWSL is 11.20 (1999-2000,) JS&AL is -3.72 (2005-06), SAOI is 15.76 (2001-02), and TSL is 41.43 (1999-2000), the maximum Sales Cash to current liabilities in ACL is 131.93 (2006-07), GSCL is 43.80 (2001-02), SIL is 78.99 (2004-05), and SCL is 78.94 (2007-08),

4. Adequacy of cash

Adequacy of cash is essential for every concern as liquidity and profitability are directly related with it. If a firm fails in realizing it current obligations for the want of sufficient liquidity, it may suffer in terms of bad credit rating, losing creditors' confidence. Contrary to this, too much liquidity will result in unnecessary blocking of cash in current

assets endangering firm's profitability position.Many financial executive's support holding excessive liquidity as an insurance against unforeseen contingencies. While others are of the opinion that 'if the unforeseen contingencies do not occur it may be analogous to say that we pay too much for the fire insurance because we do not have fire". [30] A sound liquid position is of primary concern to the management from the point of view of meeting current liabilities as and when they mature as well as for answering continuity of operations.[31] A firm is aid to have a strong liquidity, it is able: -

(i) "To meet the claims of short-term creditors when they are due.

(ii) To maintain sufficient working capital for effective normal operations.

(iii) To meet current interest and dividend requirements, and

(iv) To maintain a favorable credit rating."

To test liquidity and solvency the following ratios are being used in the present study: - Net Cash Flows to current liabilities ,Coverage of current liabilities

Net cash flow to Current Liability:

Walter has suggested, "Instead of matching current assets with current liabilities i.e. current ratio quick assets with current liabilities i.e. quick ratio, better results can be obtained by matching current obligations with net cash flows."[31] The net cash flow to current liability ratio is expressed in percentage as:

Net cash flowt to Current Liabilities Ratio = Net + operating Profitexp. / Current Liabilities x 100

The concept forecasts net cash flow is prepared on the ground that it indicates the flow of cash. Whereas, current liabilities indicates only the outstanding obligations on a particular date. Moreover, 'keeping in view the fact that most of the current liabilities continue getting new lease of life and other have payment period of one month or more, every firm maintaining positive net cash flows to current liabilities ratio can be considered and solvcyen"The higher the ratio, the greater the degree of liquidity and solvency of a firma and vice-versa.

Though no standard as this ratio has been suggested but view of held that *"an enterprise to be actually liquid and solvent, should have hundred percent or more net cash flow to current liabilities ratio"*[39] Table 7.7 gives the percentage of net cash flow to current liabilities of the selected steel Companies in India for the studies during the eight years period.

Table 7.6

Net Cash Flow To Current Liabilities Ratio Of Steel Companies In India.
(From 1999-2000 To 2008-2009)
(Ratio In %)

Companies	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	AVG.	S.D	max	min
JSWSL	0.006	-0.014	0.007	-0.005	0.036	-0.001	0.003	0.084	0.010	0.009	0.01	0.03	0.08	-0.01
JS&AL	0.000	-0.002	-0.001	0.007	-0.007	-0.006	0.010	-0.007	n.a	n.a	0.00	0.01	0.01	-0.01
SAOI	0.001	0.038	-0.034	0.012	0.155	0.367	-0.007	0.287	0.291	0.247	0.14	0.15	0.37	-0.03
TSL	-0.054	0.015	-0.010	0.037	-0.028	-0.001	0.008	1.114	-0.911	0.112	0.03	0.48	1.11	-0.91
avg.	-0.012	0.009	-0.009	0.013	0.039	0.090	0.003	0.370	-0.203	0.123	0.04	0.17	0.39	-0.24

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

The table No.7.6 presents that JSWSL had evidently not satisfactory level of liquidity during the period of study. Though JSWSL faced highly fluctuating trend ranging between -0.01 per cent and 0.08 per cent averaged a Net cash flow to current liabilities ratio of 0.01 per cent. The Net cash flow to current liabilities ratio in JS&AL had also showed fluctuating trend. The ratio was the lowest -0.01 per cent in 2001-02 and the highest 0.01 percent in 2005-06. The ten-year average ratio worked out at 0.14 percent which indicates that during the study period net cash flow had been not sufficient to cover the current liabilities. SAOI had faced negative ratio of net Cash flow to current liability the ten years under study. It may be concluded that the net cash flow to current liabilities companies were not sufficient to cover current liabilities in SAOI. TSL had average only 0.03 per cent of current liabilities to be met from profit. TSL accounted for carrying out 0.03 per cent current liabilities from the net profit. TSL had faced positive ratio.

Coverage of Current Liabilities

This ratio is also an improvement over current ratio and liquid ratio. Professor Walter calls these computations as tests actual liquidity while current and quick ratios are termed as

technical liquidity and solvency tests. This ratio takes into account the turnover rate of current liabilities and margin of profit on sales. No particular standard for this ratio as been set but a higher ratio is always desirable in the evaluation of liquidity and solvency position of a concern. It is mathematically expressed as:

$$\textbf{Coverage of Current Liabilities} = \frac{\text{Turnover of}}{\text{Current Liabilities}} \times \frac{\text{Profit}}{\text{Margin}}$$

$$\text{or} \quad \frac{\text{Sales}}{\text{Current Liabilities}} \times \frac{\text{Net Profit}}{\text{Sales}}$$

$$\text{i.e.} \quad \frac{\text{Net Profit Margin}}{\text{Current Liabilities}}$$

Table 7.7 precisely states the percentage of coverage of current liabilities of the steel companies during the study period.

Table 7.7
Coverage Of Current Liabilities Ratio Of Steel Companies In India.
(From 1999-2000 To 2008-2009)

(Ratio in Times)

Companies	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	AVG.	S.D	max	min
JSWSL	-0.11	-0.04	-0.22	-0.09	0.58	0.46	0.40	0.56	0.42	0.06	0.20	0.31	0.58	-0.22
JS&AL	0.00	0.01	0.01	0.01	0.01	0.01	0.03	0.09	n.a	n.a	0.02	0.03	0.09	0.00
SAOI	-0.27	-0.10	-0.23	-0.04	0.26	0.61	0.34	0.52	0.53	0.34	0.20	0.33	0.61	-0.27
TSL	0.16	0.18	0.10	0.24	0.40	0.66	0.67	0.64	0.59	0.52	0.42	0.23	0.67	0.10
avg.	-0.06	0.01	-0.09	0.03	0.31	0.44	0.36	0.45	0.51	0.31	0.21	0.22	0.49	-0.10

Sources: Annual Reports of steel Companies From 1999-2000 to 2008-2009

The table No.7.7 presents that JSWSL had evidently not satisfactory level of liquidity during the period of study. Though JSWSL faced highly fluctuating trend ranging between 0.58 per cent and 0.22 per cent averaged a Coverage of Current Liabilities Ratio of 0.20 per cent. The Coverage of Current Liabilities Ratio in JS&AL had also showed fluctuating trend. The ratio was the lowest 0.00 per cent in 2002-03 and the highest 0.09 percent in 2006-07. The ten-year average Coverage of Current Liabilities Ratio worked out at 0.02 percent, which indicates that during the study period net cash flow had been not sufficient to cover the current liabilities. SAOI had faced negative ratio of Coverage of Current Liabilities Ratio the ten years under study. It may be concluded that the Coverage of Current Liabilities Ratio companies were not sufficient to cover current liabilities in SAOI. TSL had average only 0.42 per cent of current liabilities to be met from profit. TSL accounted for carrying out 0.42 per cent current liabilities from the net profit. TSL had faced negative ratio.

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