Working Capital Management

CODE – KMBFM04

UNIT- 1

Principles of Working Capital Management

Concepts of Working Capital

Concept of Working Capital:

The funds invested in current assets are termed as working capital. It is the fund that is needed to run the day-to-day operations. It circulates in the business like the blood circulates in a living body. Generally, working capital refers to the current assets of a company that are changed from one form to another in the ordinary course of business, i.e. from cash to inventory, inventory to work in progress (WIP), WIP to finished goods, finished goods to receivables and from receivables to cash.

Types of working Capital

There are two concepts in respect of working capital:

(i) Gross working capital and

(ii) Networking capital.

(a) Gross Working Capital: (GWC)

GWC refers to the firm's total investment in current assets.

Current assets are the assets which can be converted into cash within an accounting year (or operating cycle) and include cash, short-term securities, debtors, (accounts receivable or book debts) bills receivable and stock (inventory).

(b) Net Working Capital: (NWC)

Net Working Capital means the difference between current assets and current liabilities, and therefore, represents that position of current assets which the firm has to finance either from long-term funds or bank borrowings.

NWC refers to the difference between current assets and current liabilities.

Current liabilities (CL) are those claims of outsiders which are expected to mature for payment within an accounting year and include creditors (accounts payable), bills payable, and outstanding expenses.

- **NWC can be positive or negative**
  - Positive NWC = CA > CL
  - Negative NWC = CA < CL
- **GWC focuses on**
  - Optimisation of investment in current assets
  - Financing of current assets
- **NWC focuses on**
  - Liquidity position of the firm
  - Judicious mix of short-term and long-term financing

(c) Positive Working Capital:

This refers to the surplus of current assets over current liabilities.

(d) Negative Working Capital:

Negative working capital refers to the excess of current liabilities over current assets.

(e) Permanent Working Capital:

The minimum amount of working capital which even required during the dullest season of the year is known as Permanent working capital.

(f) Temporary or Variable Working Capital:

It represents the additional current assets required at different times during the operating year to meet additional inventory, extra cash, etc.
It can be said that Permanent working capital represents minimum amount of the current assets required throughout the year for normal production whereas Temporary working capital is the additional capital required at different time of the year to finance the fluctuations in production due to seasonal change. A firm having constant annual production will also have constant Permanent working capital and only Variable working capital changes due to change in production caused by seasonal changes. (See Figure 7.1.)

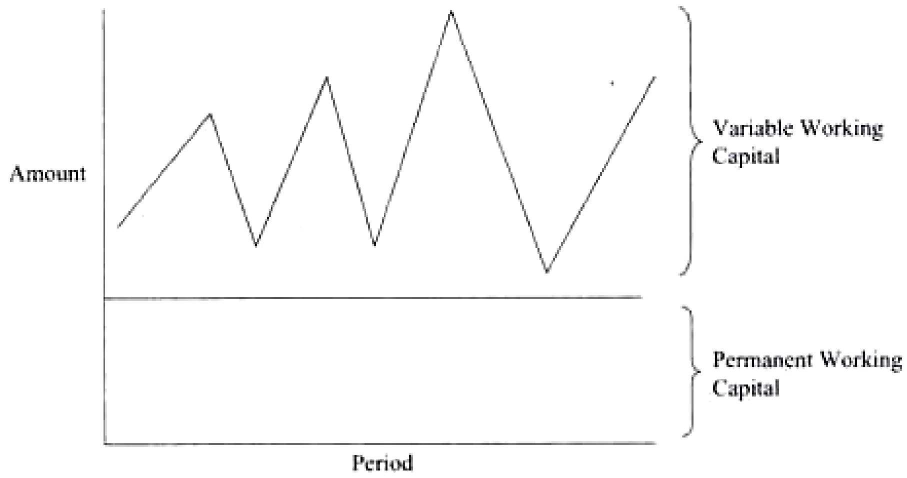


FIGURE 7.1 Working Capital of Firm having Constant Annual Sales

Similarly, a growth firm is the firm having unutilized capacity, however, production and operation continues to grow naturally. As its volume of production rises with the passage of time so also does the quantum of the Permanent working capital. (See Figure 7.2.)

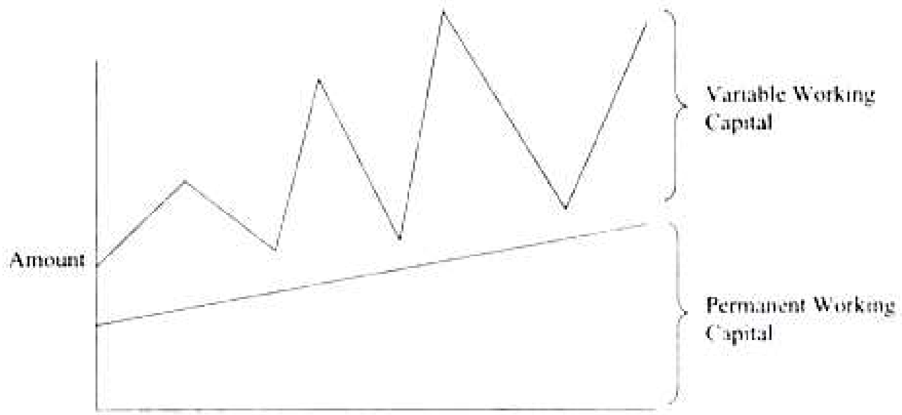


FIGURE 7.2 Working Capital of a Growth Firm

Need for Working Capital:

Working capital plays a vital role in business. This capital remains blocked in raw materials, work in progress, finished products and with customers.

The needs for working capital are as given below:

1. Adequate working capital is needed to maintain a regular supply of raw materials, which in turn facilitates smoother running of production process.
2. Working capital ensures the regular and timely payment of wages and salaries, thereby improving the morale and efficiency of employees.
3. Working capital is needed for the efficient use of fixed assets.

4. In order to enhance goodwill a healthy level of working capital is needed. It is necessary to build a good reputation and to make payments to creditors in time.
5. Working capital helps avoid the possibility of under-capitalization.
6. It is needed to pick up stock of raw materials even during economic depression.
7. Working capital is needed in order to pay fair rate of dividend and interest in time, which increases the confidence of the investors in the firm.

Importance of Working Capital:

It is said that working capital is the lifeblood of a business. Every business needs funds in order to run its day-to-day activities.

The importance of working capital can be better understood by the following:

1. It helps measure profitability of an enterprise. In its absence, there would be neither production nor profit.
2. Without adequate working capital an entity cannot meet its short-term liabilities in time.
3. A firm having a healthy working capital position can get loans easily from the market due to its high reputation or goodwill.
4. Sufficient working capital helps maintain an uninterrupted flow of production by supplying raw materials and payment of wages.
5. Sound working capital helps maintain optimum level of investment in current assets.
6. It enhances liquidity, solvency, credit worthiness and reputation of enterprise.
7. It provides necessary funds to meet unforeseen contingencies and thus helps the enterprise run successfully during periods of crisis.

Nature of Working Capital:

The nature of working capital is as discussed below:

1. It is used for purchase of raw materials, payment of wages and expenses.
2. It changes form constantly to keep the wheels of business moving.
3. Working capital enhances liquidity, solvency, creditworthiness and reputation of the enterprise.

1. It generates the elements of cost namely: Materials, wages and expenses.
2. It enables the enterprise to avail the cash discount facilities offered by its suppliers.
3. It helps improve the morale of business executives and their efficiency reaches at the highest climax.
4. It facilitates expansion programmes of the enterprise and helps in maintaining operational efficiency of fixed assets.

Operating Cycle

Operating Cycle is defined as the time duration which the firm requires to manufacture and sell the product and collect cash. Thus operating cycle refers to the acquisition of resources, conversion of raw materials into work-in-process into finished goods, conversion of finished goods into sales and collection of sales.
Larger is the operating cycle, larger will be the investment in current assets. In practice, firms are acquire resources on credit. To that extent, firm's need to raise working finance is reduced.

- **Operating cycle** is the time duration required to convert sales, after the conversion of resources into inventories, into cash. The operating cycle of a manufacturing company involves three phases:
  - ***Acquisition of resources*** such as raw material, labour, power and fuel etc.
  - ***Manufacture of the product*** which includes conversion of raw material into work-in-progress into finished goods.
  - ***Sale of the product*** either for cash or on credit. Credit sales create account receivable for collection.
  - The length of the operating cycle of a manufacturing firm is the sum of:
  - **Inventory conversion period** (ICP).
  - **Debtors** (**receivable**) **conversion period** (DCP).

Inventory conversion period is the total time needed for producing and selling the product. Typically, it includes:

- **raw material conversion period** (RMCP)
- **work-in-process conversion period** (WIPCP)
- **finished goods conversion period** (FGCP)

The debtors conversion period is the time required to collect the outstanding amount from the customers.

- **Creditors** or **payables deferral period** (CDP) is the length of time the firm is able to defer payments on various resource purchases.
- **Gross operating cycle (GOC)**

  The total of inventory conversion period and debtors conversion period is referred to as gross operating cycle (GOC).

- **Net operating cycle (NOC)**

Net Operating Cycle is used for the difference between operating cycle (or gross operating cycle) and the payment deferral period (or the period for which creditors remain outstanding).

NOC is the difference between GOC and CDP.

The Manufacturing Cycle is conversion of raw material into work-in-process into finished goods, is a component of operating cycle, and therefore, it is a major determinant of working capital requirement. Manufacturing cycle depends on the firm's choice of technology and production policy.

- **Cash conversion cycle (CCC)**

CCC is the difference between NOP and non-cash items like depreciation.

- **Permanent** or **fixed working capital**

A minimum level of current assets, which is continuously required by a firm to carry on its business operations, is referred to as permanent or fixed working capital.

- **Fluctuating** or **variable working capital**

The extra working capital needed to support the changing production and sales activities of the firm is referred to as fluctuating or variable working capital.

Determinants of Working Capital

- **Current Assets:**

  These assets are generally realized within a short period of time, i.e. within one year.
  Current assets include:
  (a) Inventories or Stocks
  (i) Raw materials
  (ii) Work in progress
  (iii) Consumable Stores
  (iv) Finished goods
  (b) Sundry Debtors
  (c) Bills Receivable
  (d) Pre-payments
  (e) Short-term Investments
  (f) Accrued Income and
  (g) Cash and Bank Balances

- **Current Liabilities:**

  Current liabilities are those which are generally paid in the ordinary course of business within a short period of time, i.e. one year.
  Current liabilities include:
  (a) Sundry Creditors

(b) Bills Payable
(c) Accrued Expenses
(d) Bank Overdrafts
(e) Bank Loans (short-term)
(f) Proposed Dividends
(g) Short-term Loans
(h) Tax Payments Due

- **Nature of business**
- **Market and demand**
- **Technology and manufacturing policy**
- **Credit policy**

Credit Policy of the firm is another factor which influences the working capital requirement. It depends on the nature and norms of business, competition and the firm's desire to use it as a marketing tool.

- **Supplies' credit**
- **Operating efficiency**
- **Inflation**

Issues in Working Capital Management

Investment in Current Assets involves a trade-off between risk and return. When the firm invests more in current assets it reduces the risk of illiquidity, but loses in terms of profitability since the opportunity of earning from the excess investment in current assets is lost. The firm therefore is required to strike a right balance.
Financing of Current Assets also involves a trade-off between risk and return. A firm can choose from short- or long-term sources of finance. If the firm uses more of short-term funds for financing both current and fixed assets, its financing policy is considered aggressive and risky. Its financing policy will be considered conservative if it makes relatively more use long term funds in financing its assets. A balanced approach is to finance permanent current assets by long-term sources and 'temporary' current assets by short-term sources of finance. Theoretically, short-term debt is considered to be risky and costly to finance permanent current assets.

- Levels of current assets
- Current assets to fixed assets
- Liquidity Vs. profitability
- Cost trade-off

Estimating Working capital

- ***Current assets holding period***

  To estimate working capital requirements on the basis of average holding period of current assets and relating them to costs based on the company's experience in the previous years. This method is essentially based on the operating cycle concept.

- ***Ratio of sales***

  To estimate working capital requirements as a ratio of sales on the assumption that current assets change with sales.

- ***Ratio of fixed investment***

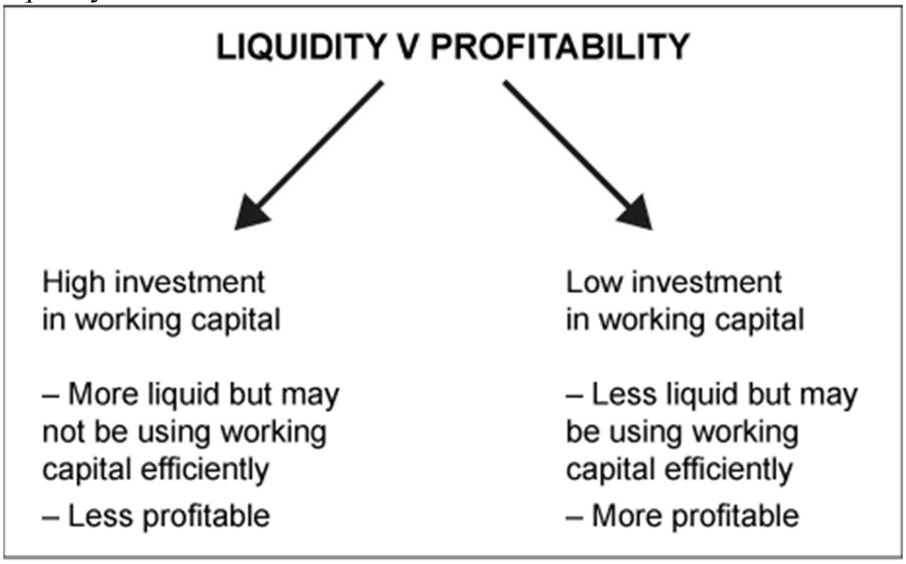
  To estimate working capital requirements as a percentage of fixed investment.

Profitability Liquidity Trade-off

One of the two key objectives of working capital management is to ensure liquidity. A business with insufficient working capital will be unable to meet obligations as they fall due, leading to late payments to employees, suppliers and other providers of credit. Late payments can result in lost employee loyalty, lost supplier discounts and a damaged credit rating. Non-payment (default) can lead to the compulsory liquidation of assets to repay creditors.

The other key objective is profitability. Funds tied up in working capital tend to earn little, or no, return. Hence, a company with a high level of working capital may fail to achieve the return on capital employed (Operating profit ÷ (Total equity and long-term liabilities)) expected by its investors.

Therefore, when determining the appropriate level of working capital there is a trade-off between liquidity and profitability:



The trade-off is perhaps most obvious with regards to the holding of cash. Although cash obviously provides liquidity it generates little return, even if held in the form of cash equivalents such as treasury bills. This is particularly true in an era of low interest rates (for example, in November 2016 the annualised yield on three-month US dollar treasury bills was approximately 0.4%).

Although an optimal level of working capital may exist it may not be achievable due to factors beyond management's control, such as an unreliable supply chain influencing inventory levels. However businesses must at least avoid the extremes:

- **Overtrading:** insufficient working capital to support the level of business activities. This can also be described as under-capitalisation and is characterised by a high and rising proportion of short-term finance to long-term finance
- **Over-capitalisation:** an excessive level of working capital, leading to inefficiency.

Working Capital Finance Policies

- Long-term
- Short-term
- Spontaneous
- Short-term Vs. Long-term financing
  - Cost
  - Flexibility

  - Risk
- Matching
- Conservative
- Aggressive

Working Capital Policy: Aggressive & Defensive

1. Conservative Approach

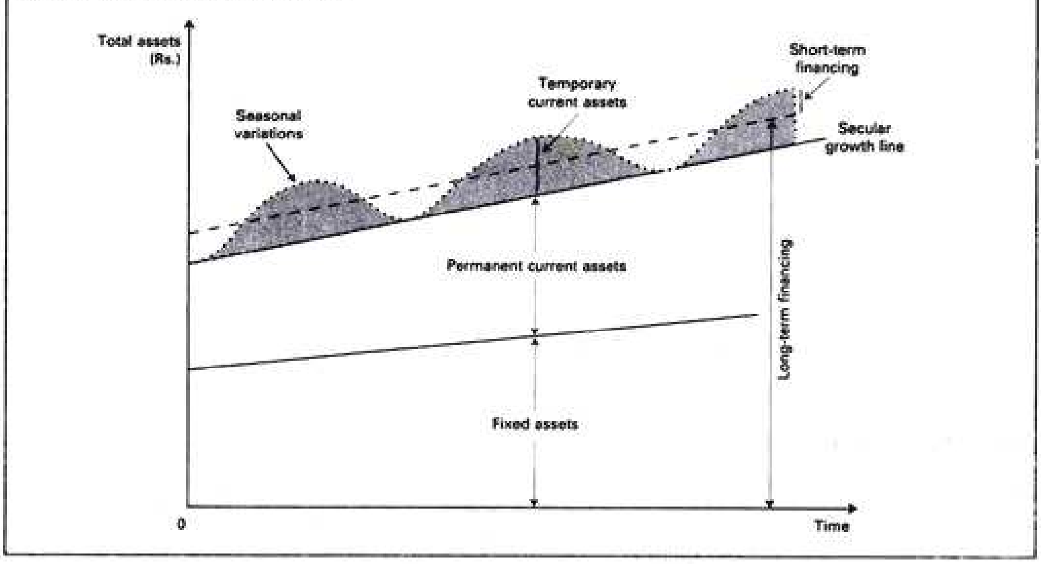
A conservative strategy suggests not to take any risk in working capital management and to carry high levels of current assets in relation to sales. Surplus current assets enable the firm to absorb sudden variations in sales, production plans, and procurement time without disrupting production plans. It requires to maintain a high level of working capital and it should be financed by long-term funds like share capital or long-term debt.

Availability of sufficient working capital will enable the smooth operational activities of the firm and there would be no stoppages of production for want of raw materials, consumables. Sufficient stocks of finished goods are maintained to meet the market fluctuations. The higher liquidity levels reduce the risk of insolvency.

But lower risk translates into lower return. Large investments in current assets lead to higher interest and carrying costs and encouragement for inefficiency. But conservative policy will enable the firm to absorb day to day business risks and assures continuous flow of operations.

Under this strategy, long-term financing covers more than the total requirement for working capital. The excess cash is invested in short-term marketable securities and in need, these securities are sold-off in the market to meet the urgent requirements of working capital.

FIGURE 33.6 CONSERVATIVE APPROACH



Financing Strategy

Long-term funds = Fixed assets + Total permanent current assets + Part of temporary current assets

Short-term funds = Part of temporary current assets

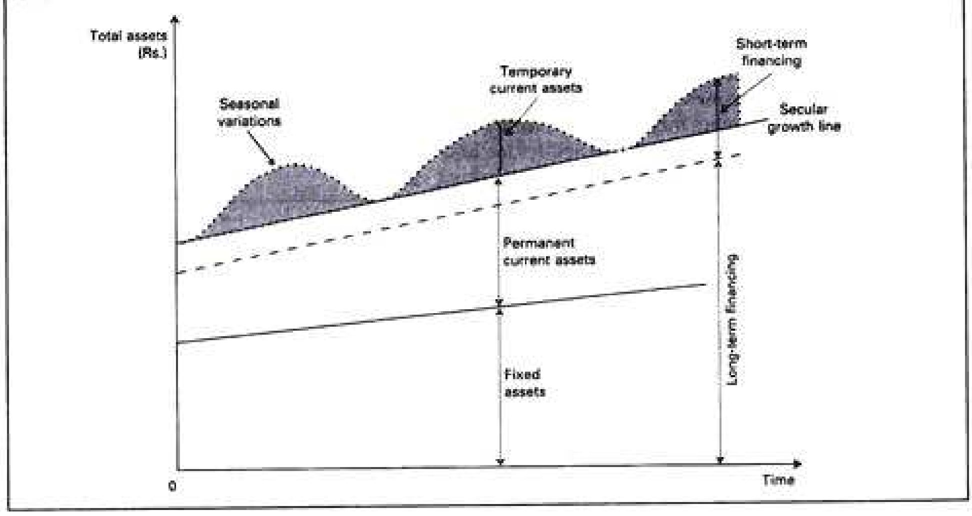
2. Aggressive Approach:

Under this approach current assets are maintained just to meet the current liabilities without keeping any cushion for the variations in working capital needs. The core working capital is financed by long-term sources of capital, and seasonal variations are met through short-term borrowings. Adoption of this strategy will minimize the investment in net working capital and ultimately it lowers the cost of financing working capital.

The main drawbacks of this strategy are that it necessitates frequent financing and also increases risk as the firm is vulnerable to sudden shocks. A conservative current asset financing strategy would go for more long-term finance which reduces the risk of uncertainty associated with frequent refinancing.

The price of this strategy is higher financing costs since long-term rates will normally exceed short term rates. But when aggressive strategy is adopted, sometimes the firm runs into mismatches and defaults. It is the cardinal principle of corporate finance that long-term assets should be financed by long-term sources and short-term assets by a mix of long and short-term sources.

FIGURE 33.7 AGGRESSIVE APPROACH



Financing Strategy

Long-term funds = Fixed assets + Part of permanent current assets

Short-term funds = Part of permanent current assets + Total temporary current assets