UNIT - 5

Dr. Tripti Triapthi

Concepts of Working Capital

- **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).

Concepts of Working Capital

Net working capital (NWC)

- 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

Concepts of Working Capital

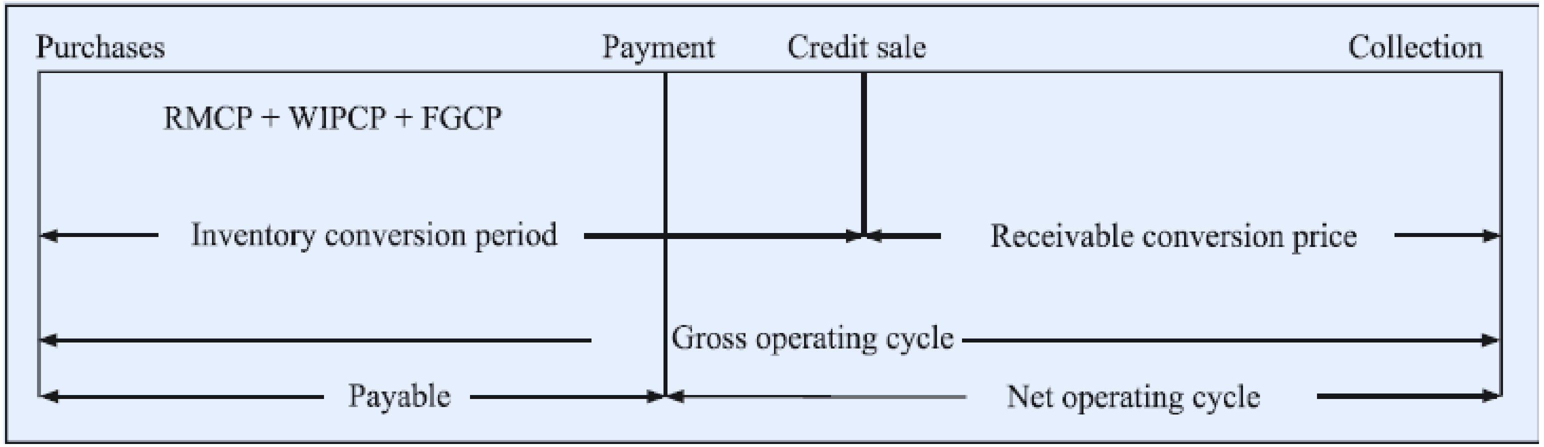
- GWC focuses on
  - Optimisation of investment in current
  - Financing of current assets
- NWC focuses on
  - Liquidity position of the firm
  - Judicious mix of short-term and long-tern financing

Operating Cycle

- 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.

Cont…

- The length of the operating cycle of a manufacturing firm is the sum of:
  - **Inventory conversion period** (ICP).
  - **Debtors** (**receivable**) **conversion period** (DCP).



Operating cycle of a manufacturing firm

Gross Operating Cycle (GOC)

- The firm's gross operating cycle (GOC) can be determined as inventory conversion period (ICP) plus debtors conversion period (DCP). Thus, GOC is given as follows:

$$\text{Gross operating cycle} = \text{Inventory conversion period} + \text{Debtors conversion period}$$

$$GOC = ICP + DCP$$

Inventory conversion period

- 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)

$$ICP = RMCP + WIPCP + FGCP$$

Debtors (receivables) conversion period (DCP)

- Debtors conversion period (DCP) is the average time taken to convert debtors into cash. DCP represents the average collection period. It is calculated as follows:

$$\text{Debtors conversion period (DCP)} = \frac{\text{Debtors}}{\text{Credit sales}/360} = \frac{\text{Debtors} \times 360}{\text{Credit sales}}$$

Creditors (payables) deferral period (CDP)

- Creditors(payables) deferral period (CDP) is the average time taken by the firm in paying its suppliers (creditors). CDP is given as follows:

$$\text{Creditors deferral period (CDP)} = \frac{\text{Creditors}}{\text{Credit purchases}/360}$$

$$= \frac{\text{Creditors} \times 360}{\text{Credit purchases}}$$

Cash Conversion or Net Operating Cycle

- Net operating cycle (NOC) is the difference between gross operating cycle and payables deferral period.

$$\text{Net operating cycle} = \text{Gross operating cycle} - \text{Creditors deferral period}$$

$$NOC = GOC - CDP$$

- Net operating cycle is also referred to as **cash conversion cycle**.

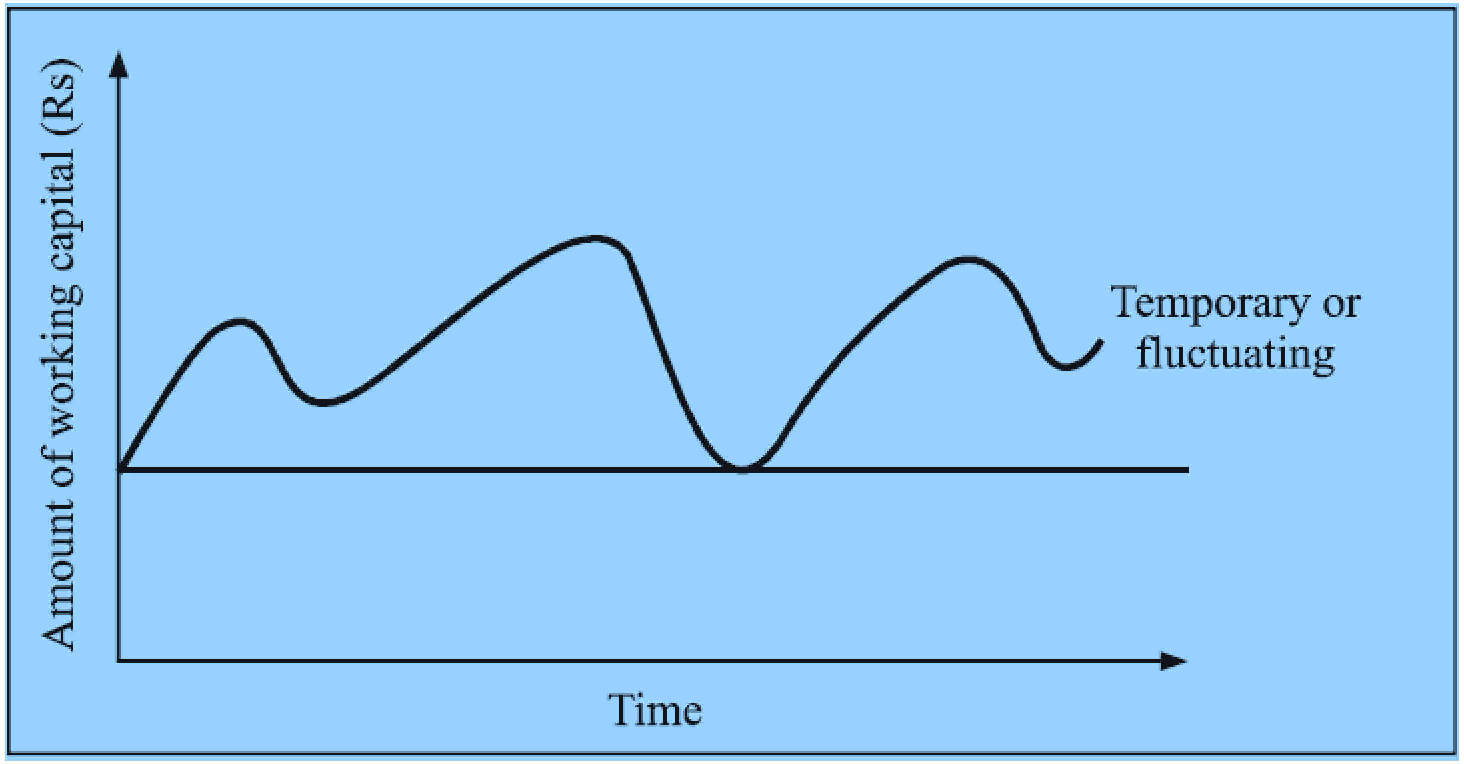
PERMANENT AND VARIABLE WORKING CAPITAL

- **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.



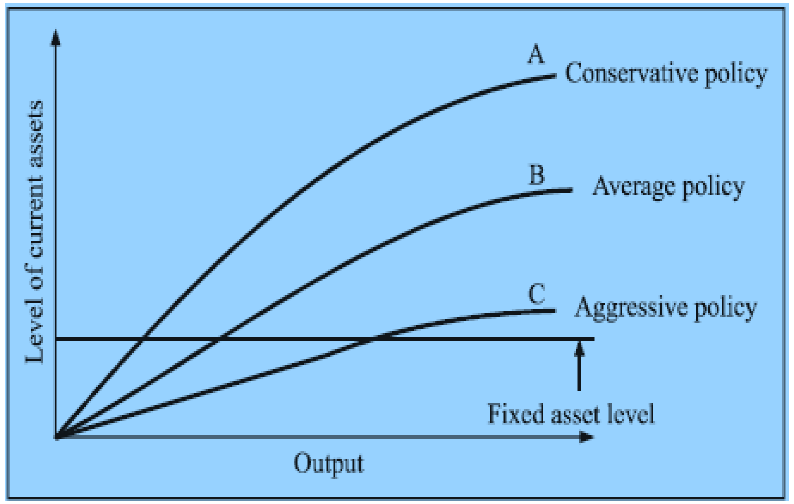
Permanent and temporary working capital

Determinants of Working Capital

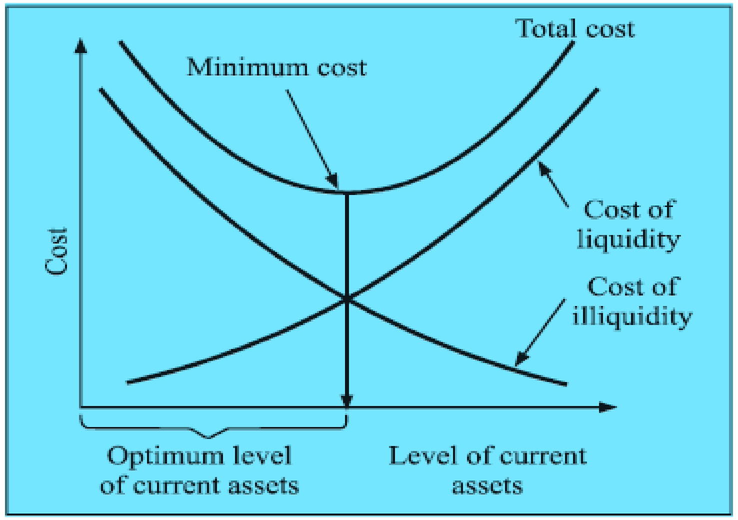
1. Nature of business
2. Market and demand
3. Technology and manufacturing policy
4. Credit policy
5. Supplies’ credit
6. Operating efficiency
7. Inflation

Issues in Working Capital Management

- **Current Assets to Fixed Assets Ratio**
- **Liquidity *vs. Profitability:* Risk–Return Trade-off**
- **The Cost Trade-off**



Alternative current asset policies



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.

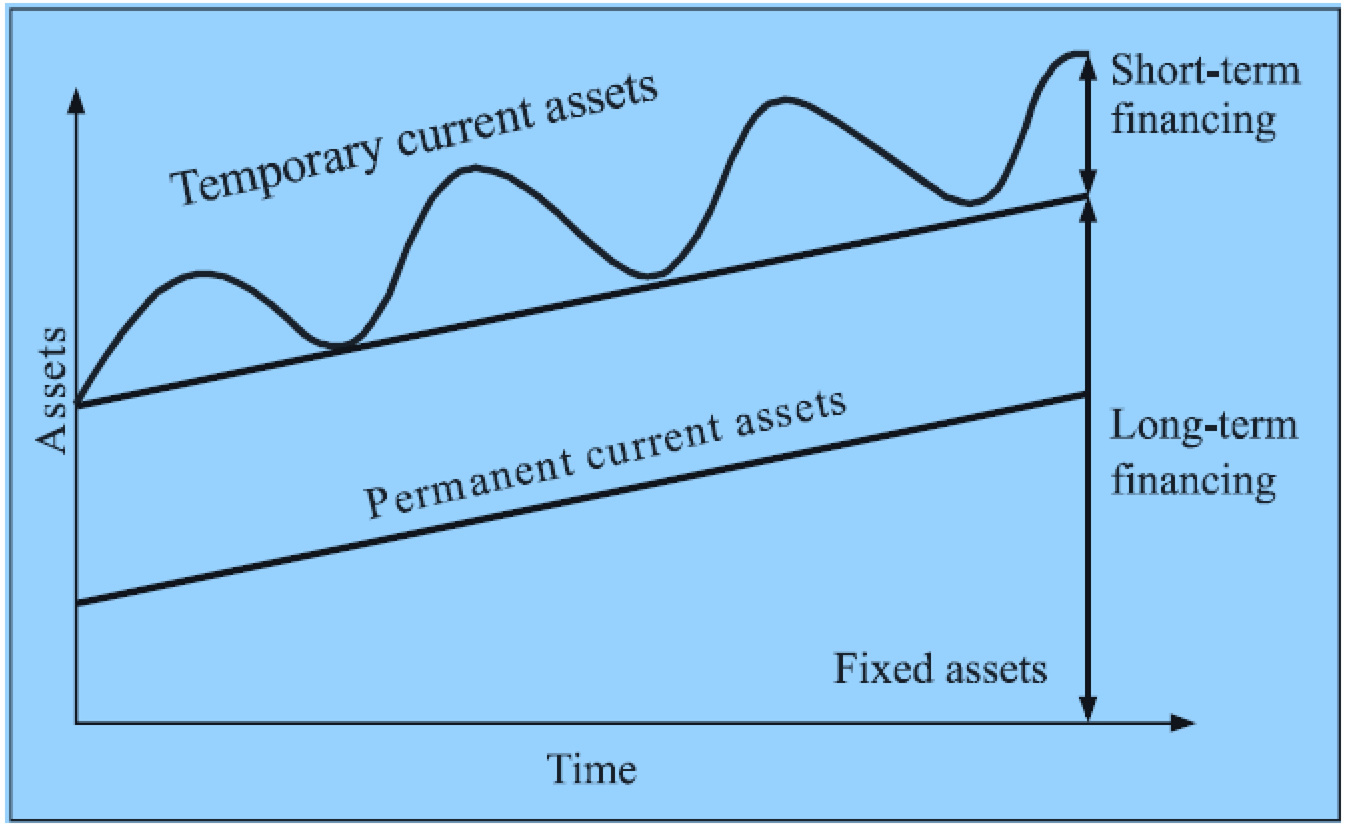
Working Capital Finance Policies

- Long-term
- Short-term
- Spontaneous

Working Capital Finance Policies

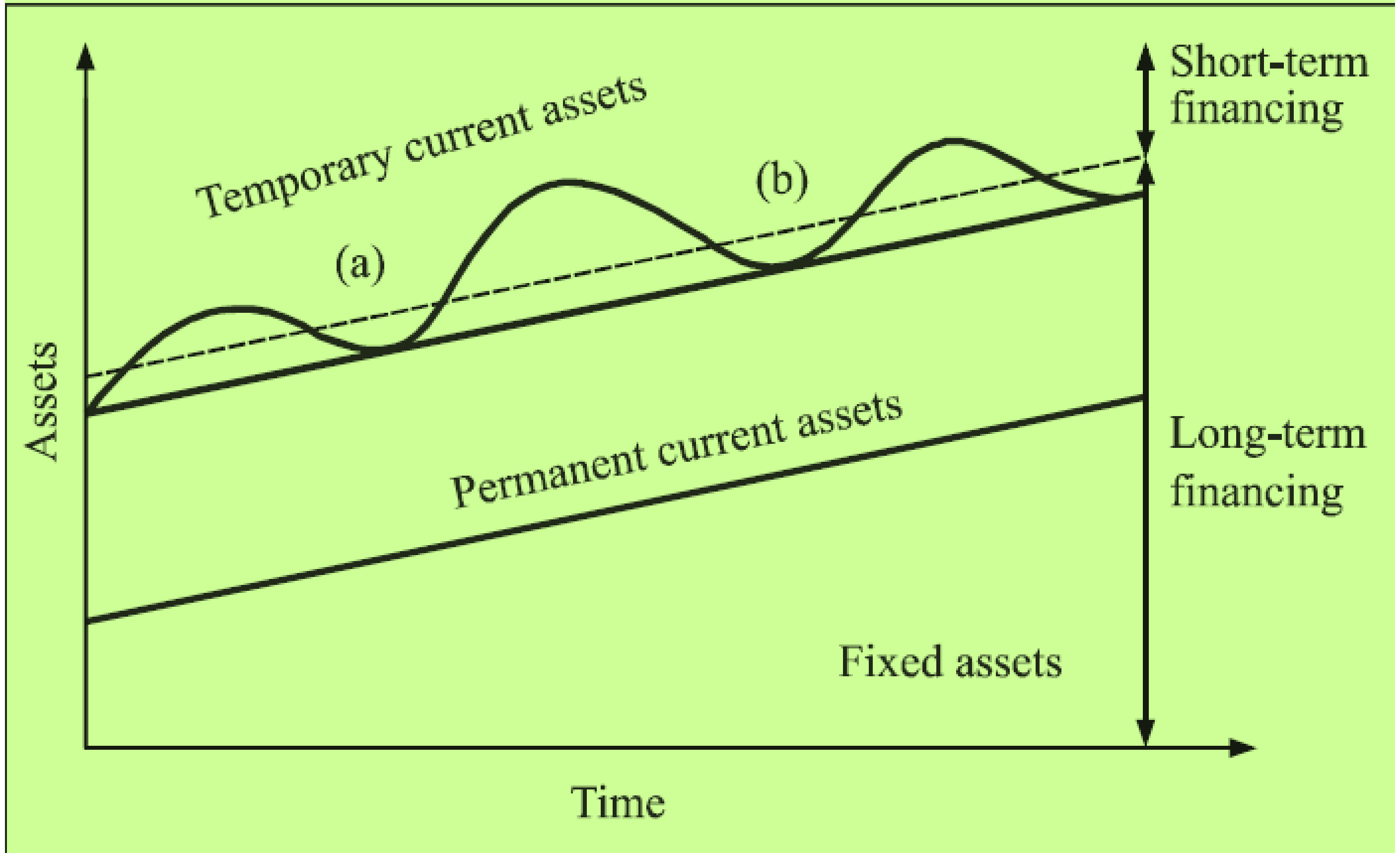
- Matching
- Conservative
- Aggressive

Matching Approach



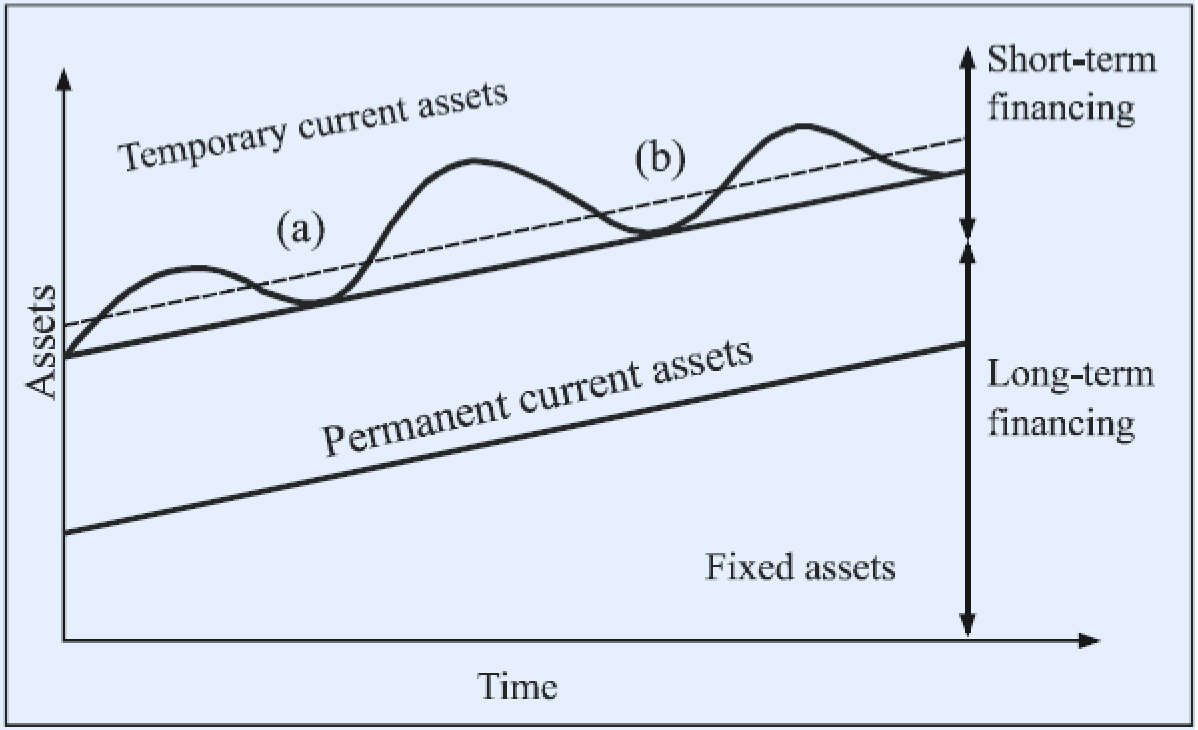
Financing under matching plan

Conservative Approach



Conservative financing

Aggressive Approach



Aggressive financing

Short-term *vs.* Long-term Financing: A Risk-Return Trade-off

- Cost
- Flexibility
- Risk
- Risk-return trade-off