

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

Example:

Cash

short-term securities

debtors

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

Example:

- ▶ creditors
- ▶ bills payable
- ▶ bank overdraft
- ▶ outstanding expenses

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*
 - *Manufacture of the product.*
 - *Sale of the product*

IMPORTANT TERMS

The length of the operating cycle of a manufacturing firm is the sum of:

Inventory conversion period (ICP) is the total time taken for

raw material conversion period

(RMCP)+work-in-process conversion

period (WIPCP)+finished goods conversion

period (FGCP)

Debtors (receivable) conversion period

(DCP) is the time required to collect the

outstanding amount from the customers.

Types of operating cycles

- ▶ **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)**

NOC is the difference between GOC and CDP.

Creditors deferral period (CDP) is the length of time the firm is able to defer payments on various resource purchases

Types of 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.

Determinants of Working Capital Requirement/ Factors affecting working capital requirement of a company

- ▶ Nature of business
- ▶ Production cycle
- ▶ Market and demand
- ▶ Technology and manufacturing policy
- ▶ Credit policy
- ▶ Suppliers' credit
- ▶ Operating efficiency
- ▶ Inflation
- ▶ Dividend Policy

Working Capital Finance Policies

Aggressive :This approach suggests that the estimated requirement of total funds should be met from short term sources; the use of long-term funds should be restricted to minimal

Conservative: This approach suggests that the estimated requirement of total funds should be met from long-term sources; the use of short-term funds should be restricted **to only** emergency situations or when there is an unexpected outflow of funds.

Matching: neither approach by itself would serve the purpose of efficient working capital management. A trade-off between these two extremes would give an acceptable financing strategy. Here the permanent working capital is procured from long term sources and seasonal from short term sources.

Numerical Example of W. Cap Estimation

A manufacturing firm is expecting to produce 48,000 units of “product A” annually. Calculate working capital requirement after considering the following if Rs. 50,000 is required as cash.

Cost Break up for each unit

Materials: Rs. 50; Wages Rs. 30; Overheads: Rs. 20.

The following is the time period (for different components of working capital) to be considered for the calculation of working capital:

Raw material:	One Month
WIP:	Two Months
(100 percent complete for the materials and 50 percent for the Labour and overheads)	
Finished Goods:	Three Months
Debtors:	One month
Creditors:	Two Months
Lag in payment in wages:	15 days

Note: A contingency of 10 percent is required in addition to the net working capital requirement.

	Solution: calculation of WCR(Working capital requirement) Fill the blanks as the calculation part is elaborated.	
(A)	Current assets:	
	(i) Raw materials in stock, $(48,000 \times \text{Rs } 50 \times 1/12)$	
	(ii) Work-in-progress	
	(a) Raw material $(48,000 \times \text{Rs } 50 (100 \text{ percent}) \times 2/12)$	
	(b) Direct Labour $(48,000 \times \text{Rs } 15 (50 \text{ percent}) \times 2/12)$	
	(c) Overheads $(48,000 \times \text{Rs } 10 (50 \text{ percent}) \times 2/12)$	
	(iii) Finished goods stock: $(48,000 \times \text{Rs } 100 \times 3/12)$	
	(iv) Debtors: $(48,000 \times \text{Rs } 100 \times 1/12)$	
	(v) Cash at bank	<u>50,000</u>
	Total investment in current assets (Add all the five components)	
(B)	Current liabilities:	
	(i) Creditors, : $(48,000 \times \text{Rs } 50 \times 2/12)$	
	(ii) Lag in payment of wages $(48,000 \times \text{Rs } 30 \times 15/365)$	
	Total current liabilities (Add above two components)	
(C)	Net working capital: Current assets – Current liabilities	
	Add: 10 per cent contingencies	

From the following information, extracted from the books of a manufacturing company, compute the operating cycle in days:

Period covered: 365 days Average period of credit allowed by suppliers, 18 days, Other data are as follows:

	<i>(Rs '000)</i>
Average debtors (outstanding)	480
Raw material consumption	4,600
Total production cost	11,000
Sales for the year	16,000
Value of average stock maintained	
Raw material	320
Work-in-process	350
Finished goods	260

Solution	
DETERMINATION OF OPERATING CYCLE	<i>(AMOUNT IN '000)</i>
<i>Particulars</i>	<i>Days</i>
(i) Raw material holding period (365 days * 320/4,600)	25
(ii) <i>Less:</i> Creditors payment period	(18)
(iii) Work-in-process holding period (365 days* 350/Rs 11,000)	12
(iv) Finished goods holding period (365 days*260/Rs 11,000)	9
(v) Debtors collection period (365 days* 480/16,000) (sales given are assumed equal to credit sales)	11

References

- ▶ Jain, K., Khan, Y. M. Basic Financial Management. New Delhi: Tata McGraw–Hill Education, Latest Edition.
 - ▶ I.M Pandey, Financial Management. New Delhi: Vikas Publishing Pvt. Ltd, Latest Edition.
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