wc - funds required for day to day operation

Module 5

Module 4	Working Capital	6 hours
Concept of working Capital, Operating and Cash conversion Cycle, Permanent and Variable working Capital, Balance working capital position and Issues.		

Introduction

- The difference between book value of current asset and current liabilities
  - Meaning and concept
  - Types
  - Needs
  - Determinants
  - Computation
  - Sources

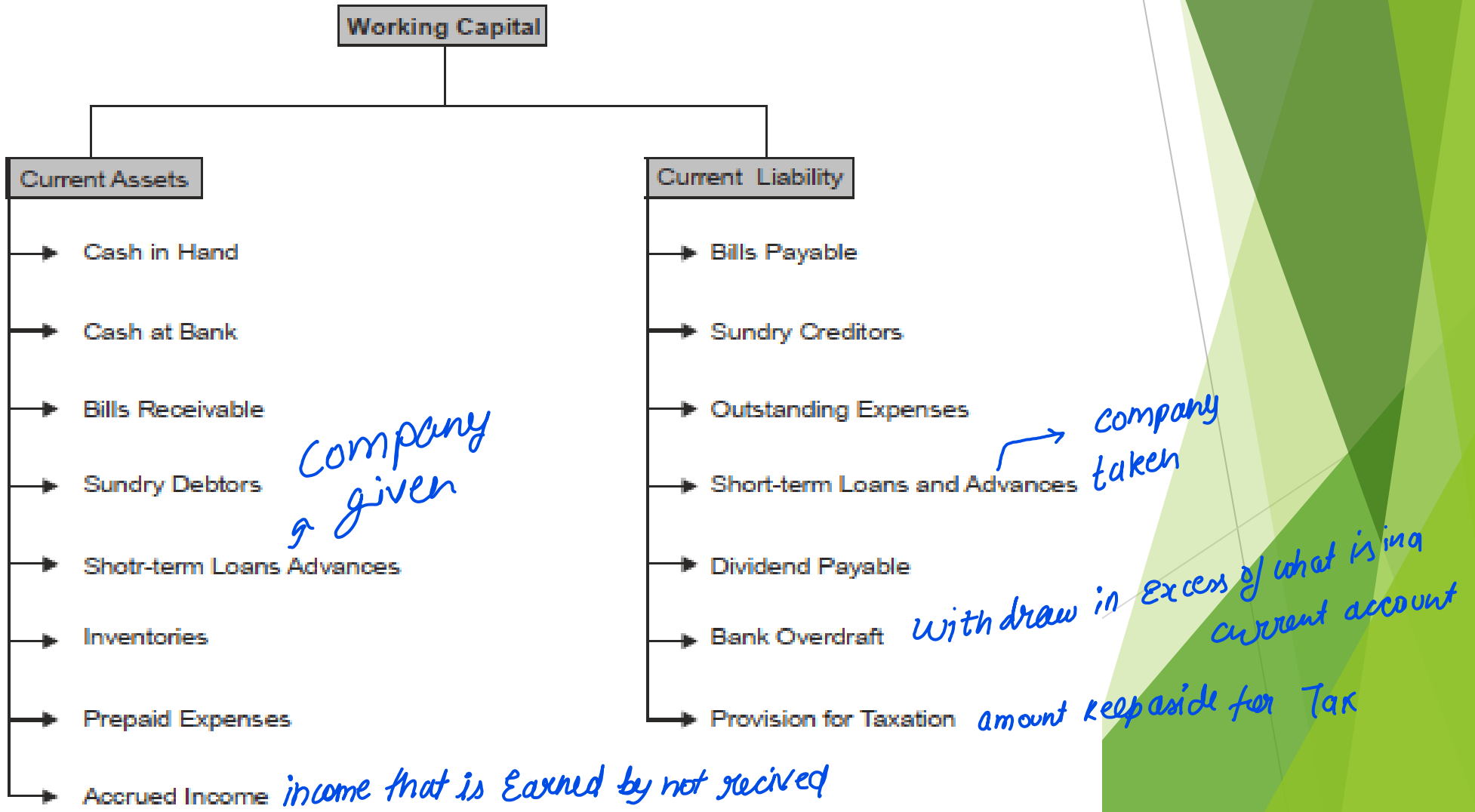
- **Meaning**: Fixed versus working capital
- Working Capital is needed for meeting day to day requirement of the business concern

- **Concept:**
- Gross WC: capital invested in total current asset
- Net WC: NWC= CA-CL

- Working-capital management includes a number of key elements related to company finances, i.e., short-term receivables, inventories, cash, and short-term liabilities.

- Apart from current assets and current liabilities, profits that generate sales revenue are the third most important element that significantly influences the level of net working capital.

Components


Working Capital
Current Assets
Cash in Hand
Cash at Bank
Bills Receivable
Sundry Debtors
Shotr-term Loans Advances
Inventories
Prepaid Expenses
Accrued Income
Current Liability
Bills Payable
Sundry Creditors
Outstanding Expenses
Short-term Loans and Advances
Dividend Payable
Bank Overdraft
Provision for Taxation
company given
company taken
with draw in excess of what is in current account
amount keep aside for Tax
income that is Earned by not recived

Management of working Capital

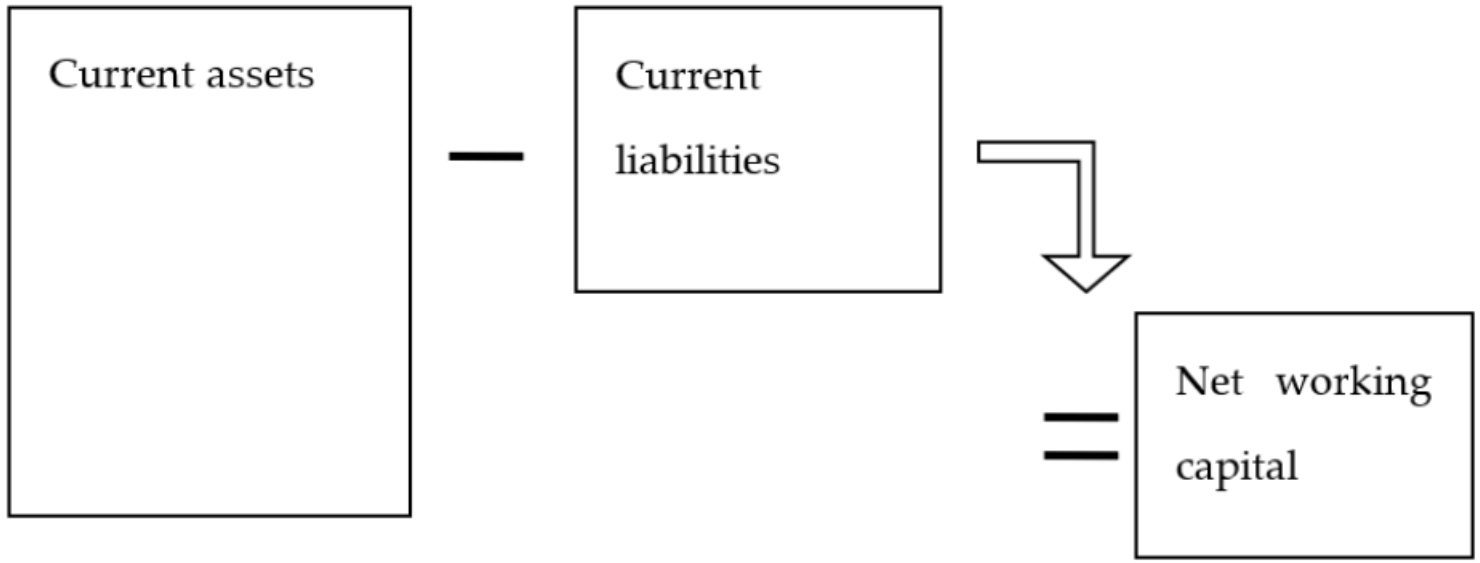
- ***Inventories*** → management and working capital management

Necessary to introduce various methods

- ***Receivable from customers*** → managing liabilities towards suppliers

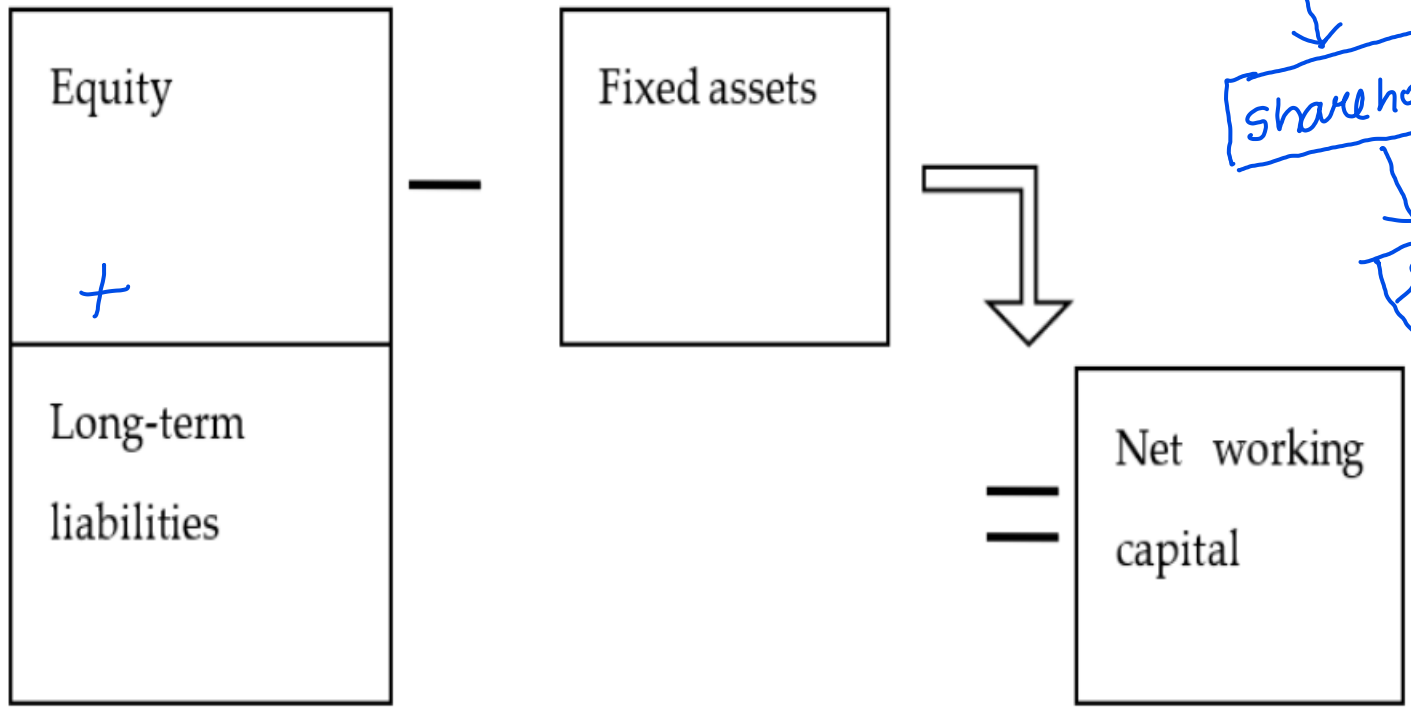
Levels of working capital

Generally more



Levels of working capital

Q: why Equity is Long term liability ?



Firm → sell shares → primary market

purches

shareholder

sell

secondary market

Types of WC

- ***Permanent WC:*** It is the capital that the business concern must maintain certain amount of capital at minimum level at all times.

- ***Temporary WC***: It is the amount of capital which is required to meet the seasonal demands and some special purposes.

- ***Semi-Variable WC***: Certain amount of Working Capital is in the field level up to a certain stage and after that it will increase depending upon the change of sales or time.

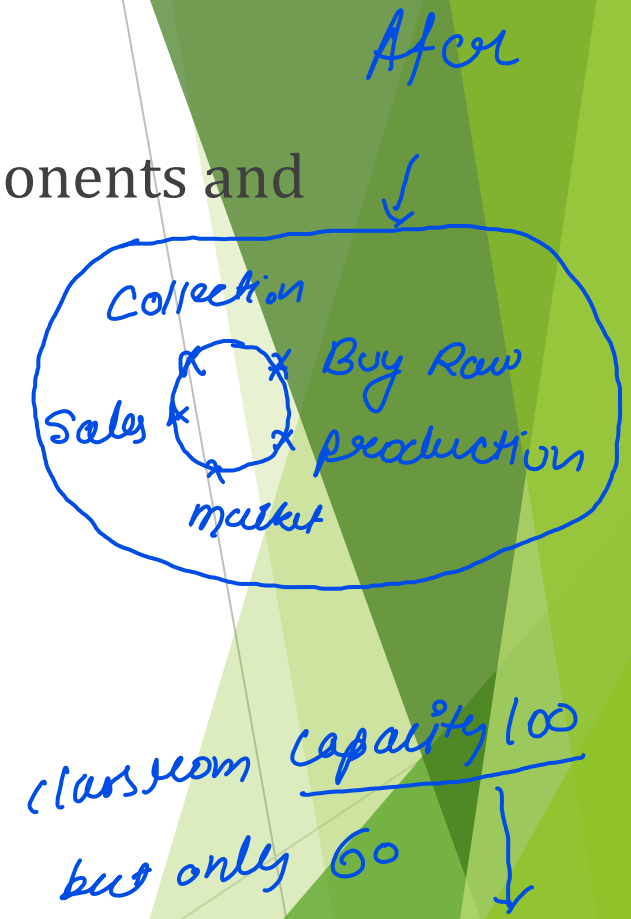
Needs of WC

- Purchase of raw materials and spares:
- Payment of wages and salary
- Day-to-day expenses:
- Provide credit obligations:

Promise that you will pay later

Working capital position

- **Causes and effects of excessive working capital**
  - Leads to unnecessary accumulation of raw materials, components and spares
  - Creates bad debts, and increases collection period
  - Profit reduces
- **Causes and effects of inadequate working capital**
  - Cannot buy its requirements in bulk order
  - It become difficult to implement its operating plans
  - It become impossible to utilize efficiently the fixed asset
  - Leads to decline in rate of return in investment



How much we needed?

Factors determining working capital requirements-1

- ***Nature of business***: If the business concerns follow rigid credit policy and sell goods only for cash, they can maintain lesser amount of Working Capital . Transport and construction company → Advance payment
- **Production cycle** : If the production cycle length is small, they need to maintain lesser amount of Working Capital
- **Business cycle:** In the booming conditions, the Working Capital requirement is larger and in the depression condition, requirement of Working Capital will reduce

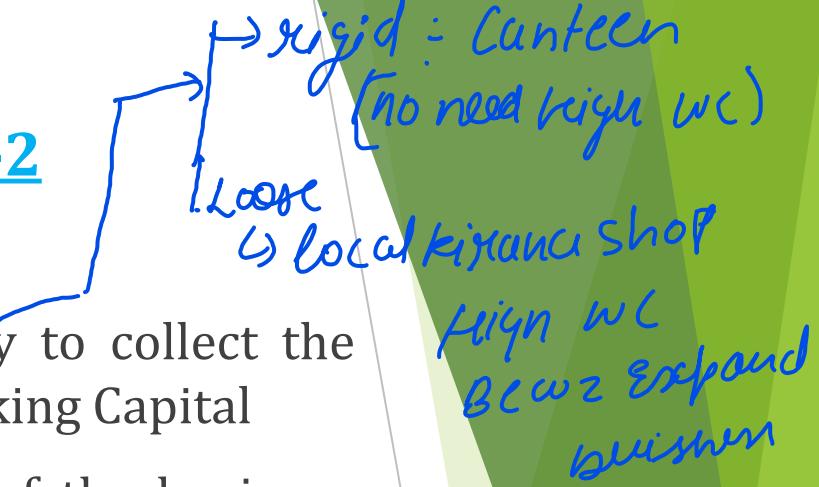
depression — recession — Boom

- **Production policy** : If the company maintains the continues production policy, there is a need of regular Working Capital

depression - longtime more worse

recession - short time

Factors determining working capital requirements-2



- ***Credit policy*:** If the company maintains liberal credit policy to collect the payments from its customers, they have to maintain more Working Capital
- ***Growth and expansion:*** During the growth and expansion of the business concern, Working Capital requirements are higher
- ***Earning capacity*:** If the business concern consists of high level of earning capacity, they can generate more Working Capital, with the help of cash from operation

Computation of working capital

- Operating cycle method:
- begins with the acquisition of raw material and ends with the collection of receivables.
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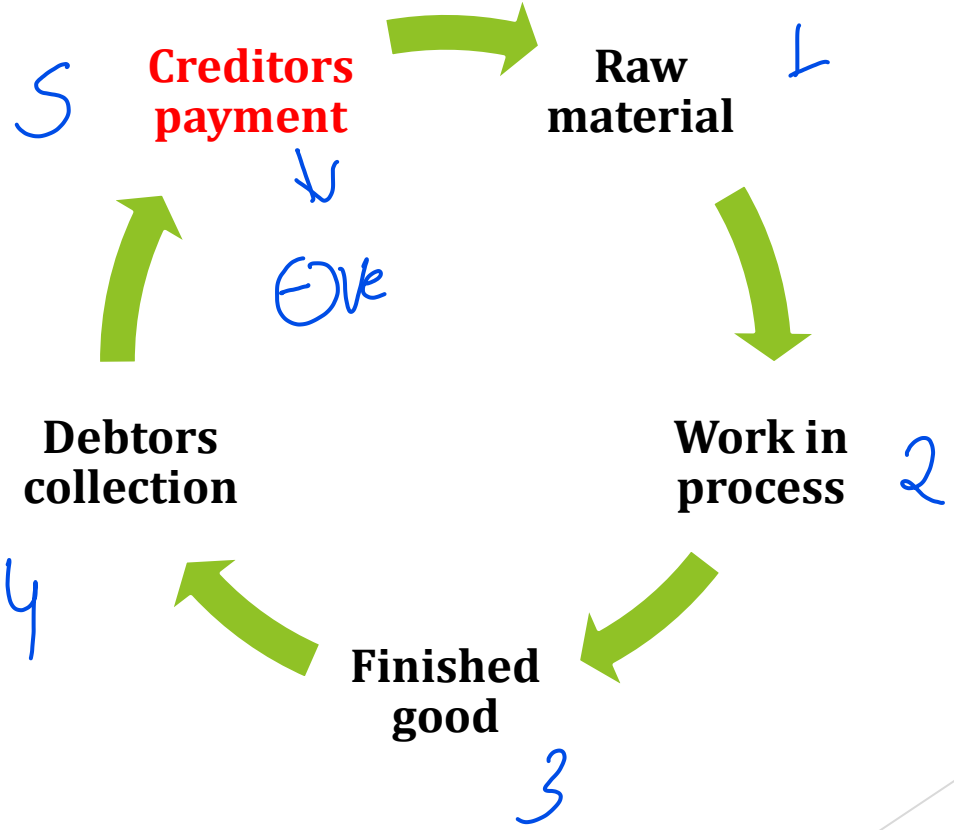

Component calculation

Raw mater

- $R = \dfrac{Average\ stock\ of\ Raw\ material}{Average\ Raw\ material\ consumption\ per\ day}$

Working inprogress

- $W = \dfrac{Average\ work\ in\ process\ inventory}{Average\ cost\ of\ production\ per\ day}$

Finished good

- $F = \dfrac{Average\ Finished\ stock\ inventory}{Average\ Cost\ of\ good\ sold\ per\ day}$

Debtor collection

- $D = \dfrac{Average\ Book\ debt}{Average\ Credit\ sales\ \ per\ day}$

- $C = \dfrac{Average\ Trade\ creditors}{Average\ Credit\ purchase\ \ per\ day}$

Creditors payment

$OC = R + W + F + D - C$

Numerator → Avg

per day ←

Example: From the following information extracted from the books of a manufacturing company, compute the operating cycle in days and the amount of working capital required:

Period Covered	365 days
Average period of credit allowed by suppliers	16 days
Average Total of Debtors Outstanding	480 00
Raw Material Consumption	4,400.00 for 365 Days
Total Production Cost	10,000.00
Total Cost of Sales	10,500.00
Sales for the year	16,000.00
Value of Average Stock maintained:	
Raw Material	320 00
Work-in-progress	350 00
Finished Goods	260 00

- 1. Raw material held in stock: $\frac{320}{4400/365}$ = 26.54
- 2. Work in process: $\frac{350}{10{,}000/365}$ = 12.7
- 3. Finished good held: $\frac{260}{10{,}500/365}$ = 9.03
- 4. Credit period allowed to debtor: $\frac{480}{16{,}000/365}$ = 10.95
- 5. Average credit period granted by suppliers: 16

- Total operating cycle : 1+2+3+4-5 = 43.29
- Number of operating cycles in a year= 8.4
- Amount of working capital required: $\frac{Total\ operating\ cost}{Number\ of\ operating\ cycles\ in\ a\ year}$ =1190.47

Cash Conversion Cycle

- The length of this cycle consists of the inventory-, the receivables, and liabilities-conversion cycles.
- Working-capital management involves both choosing the amount to invest and managing the cash-conversion cycle
- Working-capital turnover is related to the operating cycle (OC) and the cash-conversion cycle (CCC)

Working capital management

- The experience of 2008 crisis → the collapse of financial market --→ decline in real estate value --→ a situation of wealth having on paper --→ lacking liquid asset
- Proper financial planning- the analyzation of existing state of financial affairs and a realistic estimation of the future
- It can be a short-term or long-term

Cash Conversion cycle

- Two components:
  - *(i) planning for cash flows, and (ii) planning for profit*
- *A good cash budget becomes a foundation for a profit plan*
- *Profit plan is also known as pro forma statement*
- *We will look at the cash and its management*

Cash budget

- Cash inflows (+) and cash outflows (-)
- Net working capital is related to cash, but not specifically cash
- Difference between what we currently owe and what we currently own (immediate sources and uses of cash)
- Working capital management is the day to day management of cash, inventories, receivables, and payables
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Seasonal requirements

- Demand for working capital is not constant
- A company has $25,000 in cash, $100,000 in inventory and $80,000 in Accounts Receivable (A/R). Their Accounts Payable (A/P) is stable at $55,000. What is their permanent funding requirement?

  = $ 25,000+ 100,000+80,000-55,000 = $150,000

- The company has the same current asset requirements for part of the year. The other part of the year their inventory peaks at $140,000 and their A/R peaks at $135,000. What is their seasonal funding needs?
- $ 25,000+ 140,000+135,000-55,000= **$245,000**
- **So, during the peak season they need to have an extra $95,000 funding.**

Meaning of Cash Conversion Cycle

- Length of time between purchase of raw-materials and collection of cash from debtors
- Indicates the efficiency of managing working capital, and can be comparable
- Constructed by deducting the payable deferral period from the addition of inventory conversion period and receivable collection period.
- **Operating Cycle versus CCC**
- An operating cycle represents the amount of time it takes a company to acquire inventory, sell that inventory, and receive cash from its customers in exchange for the inventory sold.
- Cash cycle represents the amount of time it takes a company to convert resources into cash
- While both cycles serve similar purposes, the operating cycle offers insight into a company's operating efficiencies, while the cash cycle offers insight as to how well a company is managing its cash flow.

Less CCC is good

The difference

- **Cash conversion cycle**
- Days of inventory outstanding + days of sales outstanding — Days payable outstanding
- **Operating cycle**

Computing CCC

- CCC : The average payment period (AP) , the average collection period, and average age of inventory
- CCC= OC- AP
- OC= Average inventory conversion period+ Average receivable conversion period
- Inventory Conversion period = $\frac{Average\ inventory}{Average\ daily\ cost\ of\ goods\ sold}$
- Receivable conversion period = $\frac{Average\ receivable}{Average\ daily\ revenue}$
- Payable conversion period = $\frac{Average\ payable}{Average\ daily\ purchases}$

- Calculate CCC from the following information
- We have: 60,000 (inventory) and sells 3000 worth of goods every day
- We have: 120,000 (receivables) and sells 4000 in revenue
- We have to : 30,000 (payables) and purchases 2000 in raw materials

- **Answer:**
- Inventory conversion period: 60,000/3,000= 20 days to sell
- Receivable conversion period: 120,000/4,000= 30 days to collect
- Payable conversion period: 30,000/2,000= 15 days

- = 20+30-15= **35** days