By<br>Prasanna Tambe Chartered Accountant

## Trend analysis

- Determines the trend of various items over a period of time
- Base year considered as 100 \& trend percentages derived for rest of the years
- Trend \% = CY/BY $\times 100$


TREND ANALYSIS

|  | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| :--- | :---: | :---: | :---: | :---: | ---: | ---: |
|  | Rs. | Rs. | Rs. | $\%$ | $\%$ | $\%$ |
| Sales | $25,00,000$ | $45,00,000$ | $60,00,000$ | 100 | 180 | 240 |
| Cost of Goods sold | $20,00,000$ | $30,00,000$ | $40,00,000$ | 100 | 150 | 200 |
| GP | $5,00,000$ | $15,00,000$ | $20,00,000$ | 100 | 300 | 400 |
|  |  |  |  |  |  |  |
| Net worth | $30,00,000$ | $45,00,000$ | $60,00,000$ | 100 | 150 | 200 |
| Loan funds | $20,00,000$ | $15,00,000$ | $10,00,000$ | 100 | 75 | 50 |
| Capital employed | $50,00,000$ | $60,00,000$ | $70,00,000$ | 100 | 120 | 140 |



## Comparative statements

- Used for tracking relative changes over a period of two years
- Absolute change = YEAR 2-YEAR 1
- \% Change =

Absolute change/Year $1 \times 100$


Comparitive statements

|  | 2015 | absolute 2016change |  | \% change |
| :---: | :---: | :---: | :---: | :---: |
|  | Rs. | Rs. | Rs. |  |
| Sales | 25,00,000 | 45,00,000 | 20,00,000 | 80 |
| Cost of Goods sold | 20,00,000 | 30,00,000 | 10,00,000 | 50 |
| GP | 5,00,000 | 15,00,000 | 10,00,000 | 200 |
| Net worth | 30,00,000 | 45,00,000 | 15,00,000 | 50 |
| Loan funds | 20,00,000 | 15,00,000 | $(5,00,000)$ | -25 |
| Capital employed | 50,00,000 | 60,00,000 | 10,00,000 | 20 |



## Common size statements

- All items in financial statements expressed as a \% of base figure
- For P\&L a/c

Relevant item/net sales $\times 100$

- For BS

Relevant item/capital employed $\times 100$


| Common size <br> statements |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: |
|  | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
|  | Rs. | Rs. | Rs. | $\%$ | $\%$ | $\%$ |
| Sales | $25,00,000$ | $45,00,000$ | $60,00,000$ | 100 | 100 | 100 |
| Cost of Goods sold | $20,00,000$ | $30,00,000$ | $40,00,000$ | 80 | 66.67 | 66.67 |
| GP | $5,00,000$ | $15,00,000$ | $20,00,000$ | 20 | 33.33 | 33.33 |
|  |  |  |  |  |  |  |
| Net worth | $30,00,000$ | $45,00,000$ | $60,00,000$ | 60 | 75 | 85.71 |
| Loan funds | $20,00,000$ | $15,00,000$ | $10,00,000$ | 40 | 25 | 14.29 |
| Capital employed | $50,00,000$ | $60,00,000$ | $70,00,000$ | 100 | 100 | 100 |

## Meaning \& Types

- Ratio shows relationship between two items financial statements
- Forms of expression:- Pure ratio, Percentage, Rate of change
- FS based types:- Balance sheet ratios, P\&L a/c ratios, Composite ratios
- Functional classification:- Liquidity, leverage, activity, profitability
- User based classification:- ST creditors. Shareholders, Management, LT creditors


## Balance sheet ratios

- Current ratio= CAs/CLs
- Liquidity or solvency ratio
- Judgment about short term liquidity
- Standard ratio 2:1
- To be used with Liquid ratio \& Stock to WC ratio



## Balance sheet ratios

- Liquid ratio= QAs/QLs
- Liquidity or solvency ratio
- Judgment about short term liquidity
- Standard ratio 1:1
- To be used with Current ratio \& Stock to WC ratio



## Balance sheet ratios

- Stock to WC ratio= Stock/WC
- Liquidity or solvency ratio
- Qualitative test of about short term liquidity
- No Standard ratio
- To be used with Current ratio \& Quick ratio



## Balance sheet ratios

- Proprietory ratio= NW/(FAs + Invts +CAs ) X 100
- Relationship between SH funds and Total capital invested
- LT solvency
- Ideal ratio 65\%



## Balance sheet ratios

- Debt equity ratio= Debt/NW OR
- Debt equity ratio= Debt/(NW + debt)
- Relationship between SH funds and Total capital invested
- LT solvency
- Ideal ratio 2:1



## Balance sheet ratios

- Capital Gearing ratio = Capital with fixed rate of interest or dividend/(NW -PC)
- Leverage ratio
- No standard ratio
- Ratio of 1 indicates evenly geared
- Ratio > 1, highly geared
- Trading on equity



## P\&L Statement ratios

- Gross profit ratio
- Operating ratio $=(C O G S+O E) /$ SALES $x$ 100
- Expense ratio
- Operating profit ratio
- Net profit ratio $=$ PBT/SALES $\times 100$
- Stock turnover ratio = COGS/average stock



## Composite ratios

- Return on Capital employed ratio
- ROCE = PBIT/CE * 100
- $C E=N W+B F$
- Relation ship between earning \& capital employed
- No standard ratio



## Return on Proprietor's funds

- Ratio = PAT/NW * 100
- Indicates returns available on owned funds
- No standard ratio



## Return on Equity capital

- Ratio = (PAT-pref div) $/$ ESH Funds
- ESH funds = NWC-PC
- Indicates rate of return for equityholders



## Dividend payout ratio

- Ratio= Dividend to ESH/(PAT-pref div ) * 100
- Indicates proportion of payout to equity holders
- No standard ratio



## Debt service ratio

- Ratio= PBIT/INTEREST
- Indicates coverage for interest payments



## Debt service coverage ratio

- Ratio = (PAT + Interest + non cash charges)/(Interest + repayment of principal)
- Used to lenders to check margin of safety for payment of interest \& loan



## Debtors turnover ratio

- Ratio= Credit sales/(Sundry debtors + BR)
- Average credit period = 365 days/debtors turnover ratio
- Used to evaluate efficiency in management of debtors



## Creditors turnover ratio

- Ratio= Credit purchases /(Sundry creditors + BP)
- Average credit period $=365$ days/creditors turnover ratio
- Used to evaluate payment policy for creditors


Thank You


