FINANCIAL STATEMENT ANALYSIS

What are FINANCIAL STATEMENTS?

Financial Statements present data in a systematic form by following generally accepted accounting principles.

Types of Financial Statements:

1. **Balance Sheet**: Indicates the financial condition of the business at a particular moment of time. (As on 31st Mar 2020)
2. **Profit and Loss Account**: reflects earning capacity of a firm over a specific period of time.(1st Apr2019 to 31st Mar 2020)

Who looks at Financial Statements?

What is Purpose of analyzing FS?

- providing useful information to the **interested parties**:
- creditors, shareholders, researchers, government etc.
- Process of establishing relationships between various components of the financial statements and finding their relative importance.
- assessing the profitability and operating efficiency.
- comparing the position of the firm vis-à-vis its competitors.

TOOLS FOR FINANCIAL STATEMENT ANALYSIS

Comparative Analysis:

evaluating firm's position relative to industry standards/ competitors/ firm's past performance.

Ratio Analysis:

Evaluating performance of the firm by establishing relationship between two or more variables.

Du Pont Analysis:

measuring profitability in terms of net profit margin and turnover ratios.

COMPARITIVE ANALYSIS

comparing the financial ratios of a firm with players in other industries/ or with the ratios of the same firm over a period of time.

- **Types of Comparative Analysis:**

1. Cross-Sectional Analysis
2. Time-Series Analysis
3. Common Size Analysis

CROSS-SECTIONAL ANALYSIS

• It involves comparison of financial ratios of firm with the industry standard or ratios of a strong player in industry.

• It indicates the relative financial position and performance of the firm.

Example: The following data is extracted from the published accounts of two companies ABC Ltd. and XYZ Ltd. in an industry:

Particulars	ABC Ltd.	XYZ Ltd.
Sales	32,00,000	30,00,000
Net Profit After Tax	1,23,000	1,58,000
Equity Capital (Fully paid up shares with face value of Rs. 10)	10,00,000	8,00,000
General Reserves	2,32,000	6,42,000
Long-term debt	8,00,000	5,60,000
Creditors	3,82,000	5,49,000
Bank Credit (short-term)	60,000	2,00,000
Fixed Assets	15,99,000	15,90,000
Inventories	3,31,000	8,09,000
Other Current Assets	5,44,000	4,52,000

Perform a cross-sectional analysis for the two companies on the basis of the liquidity ratios, debt-equity ratio, total asset turnover ratio, fixed assets turnover ratio and EPS.

Solution:

Cross-Sectional Analysis

Ratios	ABC Ltd.	XYZ Ltd.
Current ratio	1.98	1.68
Quick ratio	1.23	0.60
Debt-Equity ratio	1.01	0.91
Total assets turnover ratio	1.29	1.05
Earnings Per Share	1.23	1.97

TIME SERIES ANALYSIS

- Time series or trend analysis helps in identifying the direction of changes in the financial ratios of the firm over a period of time.
- **Example:** The trend in terms of year to year changes in the current ratio, debt-equity ratio and return on investment are given below. Represent the data in terms of Index number trend series.

Ratio	2017	2018	2019	2020	2021	2022
Current ratio	2.0	2.5	2.2	2.0	2.5	2.0
Debt Equity ratio	1.8	1.6	1.6	1.5	1.5	1.2
Return on Investment	20	18	18	15	15	18

COMMON SIZE ANALYSIS

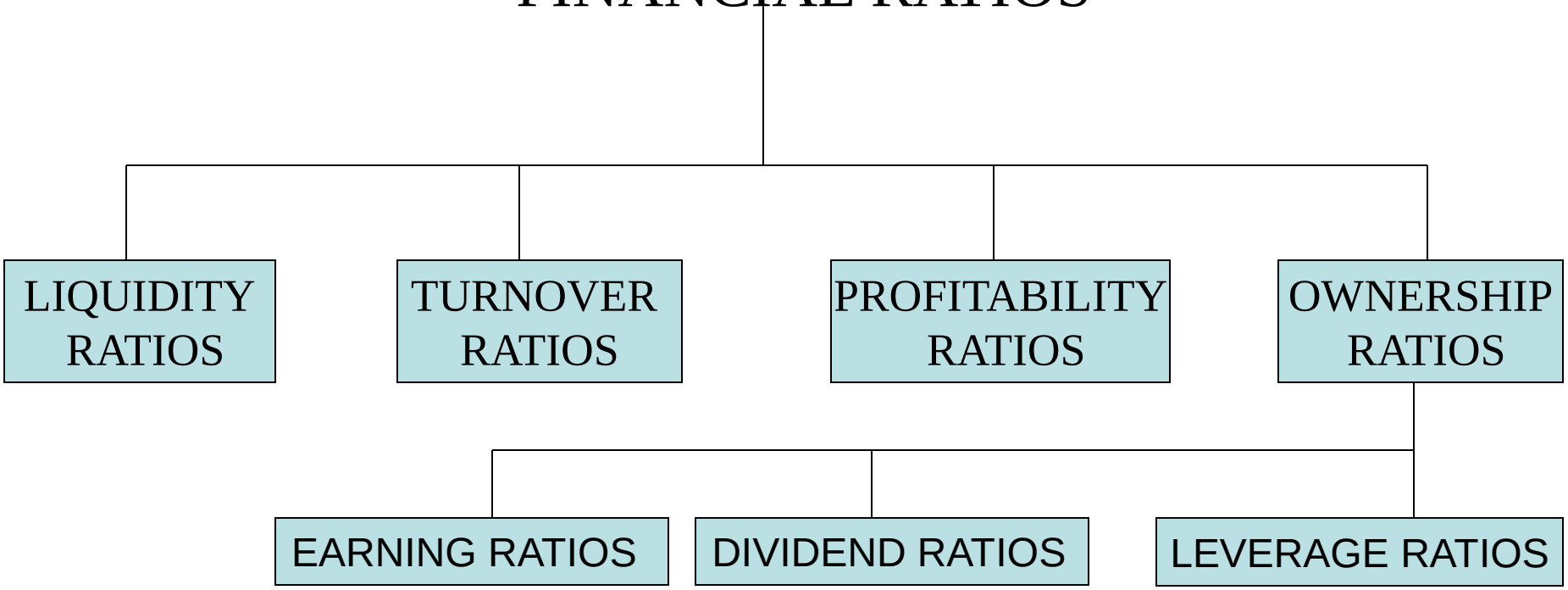
- It involves expressing each item as a proportion of some base item.
- Facilitates in making inter-period as well as inter-firm comparison.

- Refer xl sheet :

Solution: We can take 2017 as the base year and compute the index for the other years in terms of the base year. We take 100 as the base value for current ratio in 2017, then the current ratio index for 2008 = $\frac{2.5}{2.0} \times 100$ =125. The other indices can also be computed in a similar manner.

Ratio	2017	2018	2019	2020	2021	2022
Current ratio	100	125	110	100	125	100
Debt Equity ratio	100	89	89	83	83	67
Return on Investment	100	90	90	75	75	90

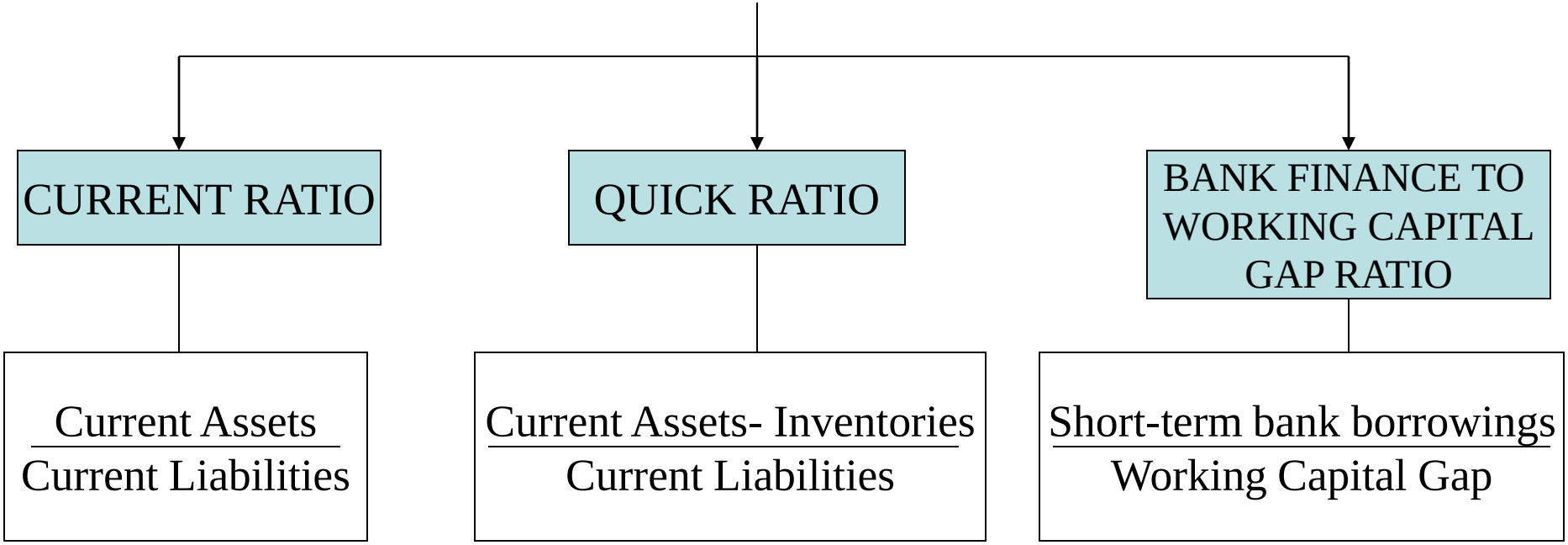
FINANCIAL RATIOS



LIQUIDITY RATIOS

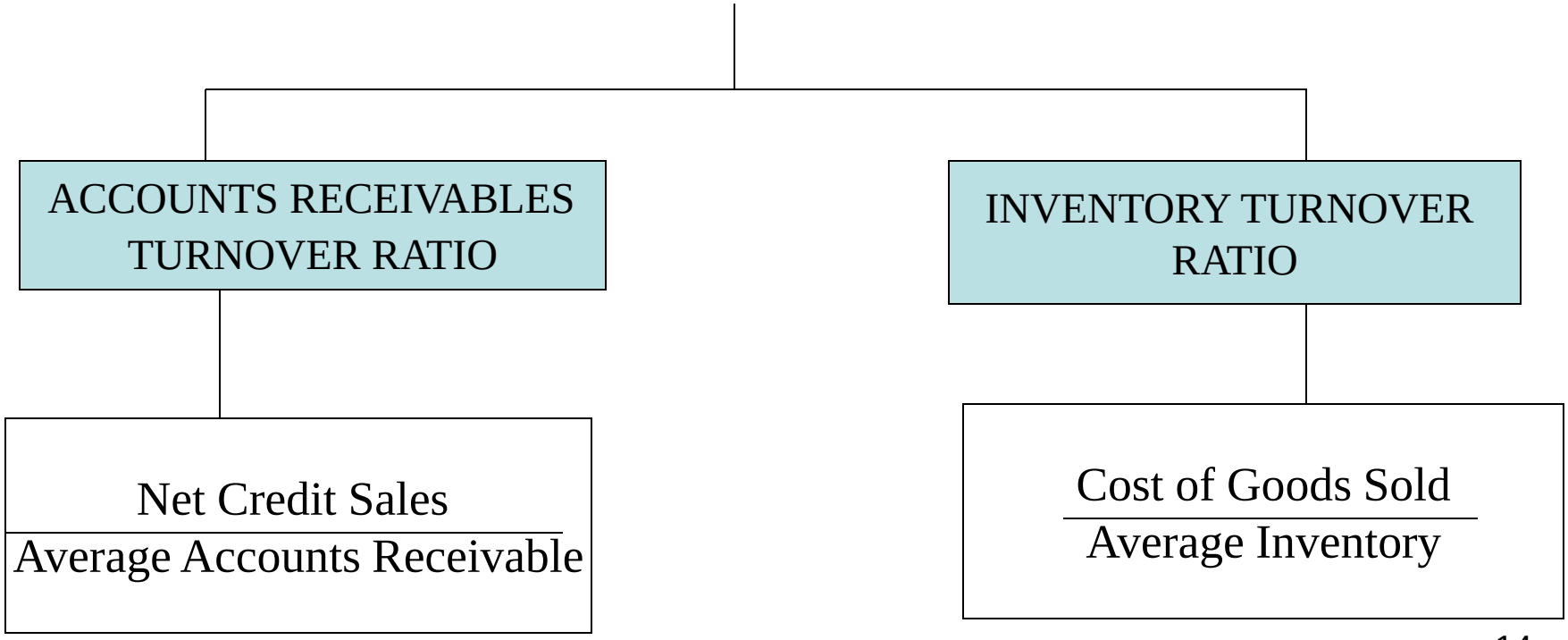
measure firm's ability to pay its debts in the short run.

Interested parties :



TURNOVER RATIOS

- measure : efficiency how firm manages its assets.
- Ratios indicate: speed with which assets are being converted into sales.
- Interested stakeholders:



PROFITABILITY RATIOS

measure the efficiency of firm's operations and ability to generate profits.

- **Types of Profitability Ratios**:

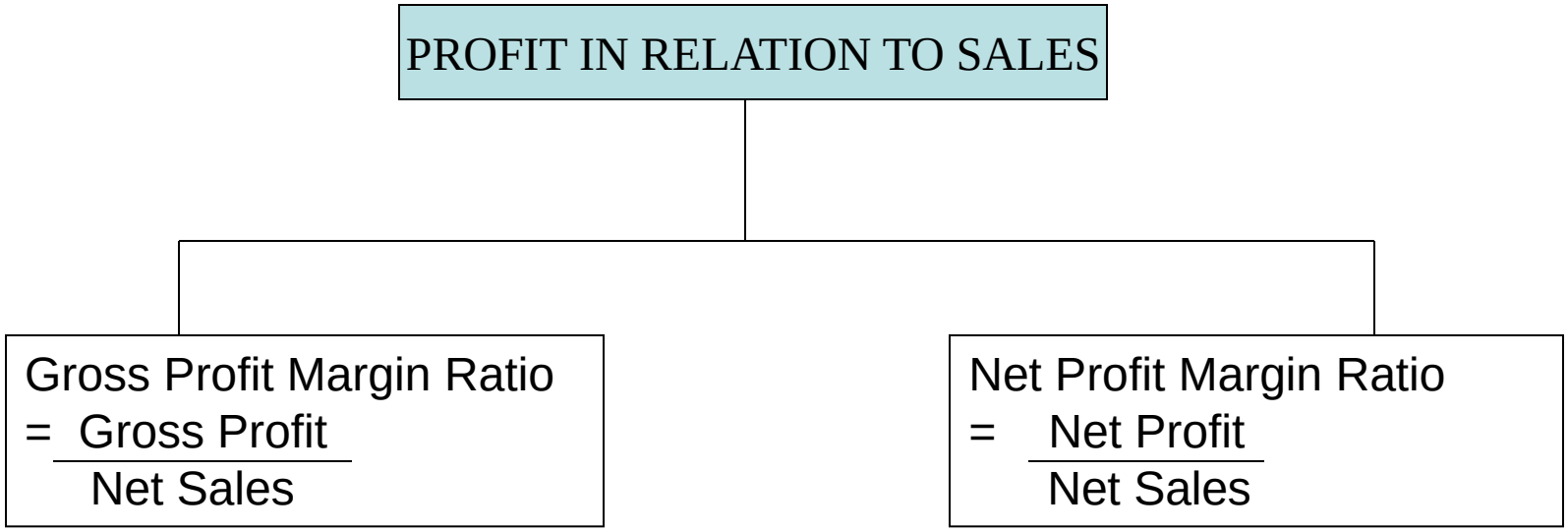
(a) Ratios computing profit in relation to sales:

ability of the firm to generate profit on ***each unit of sales***.

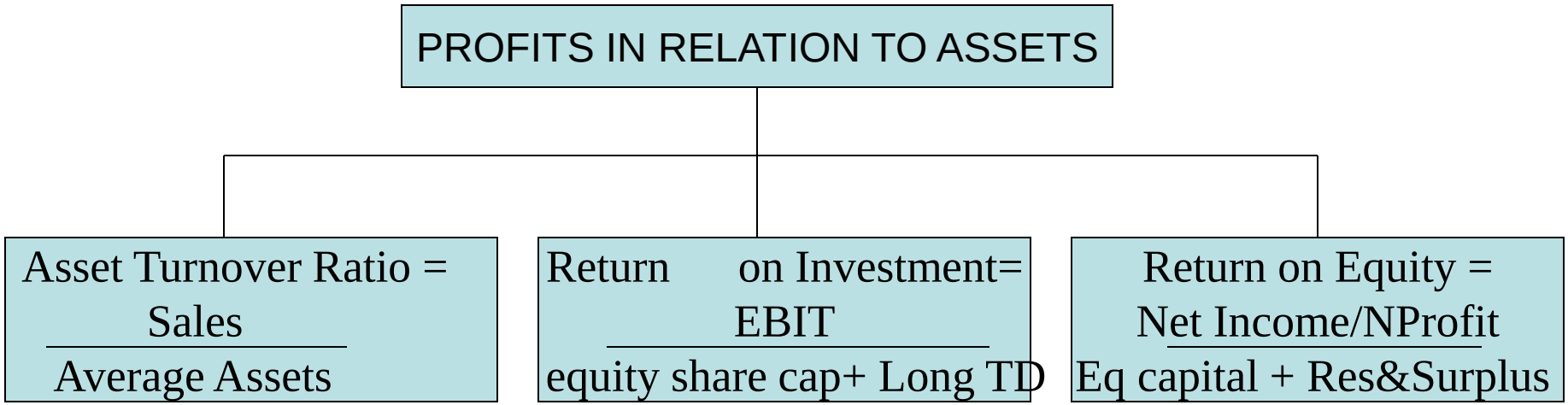
(b) Ratios computing profit in relation to assets:

earned profit on its asset base.

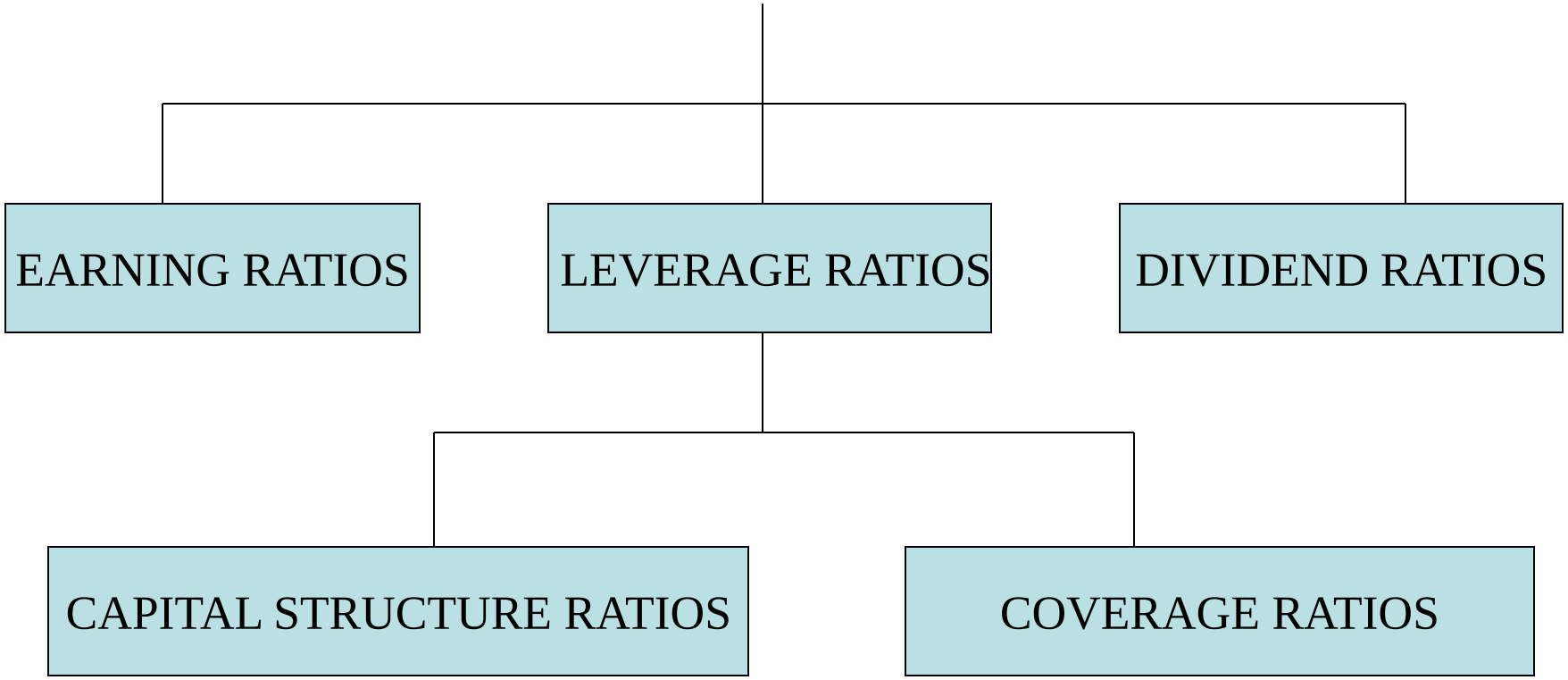
PROFITABILITY RATIOS



PROFITABILITY RATIOS (contd…)

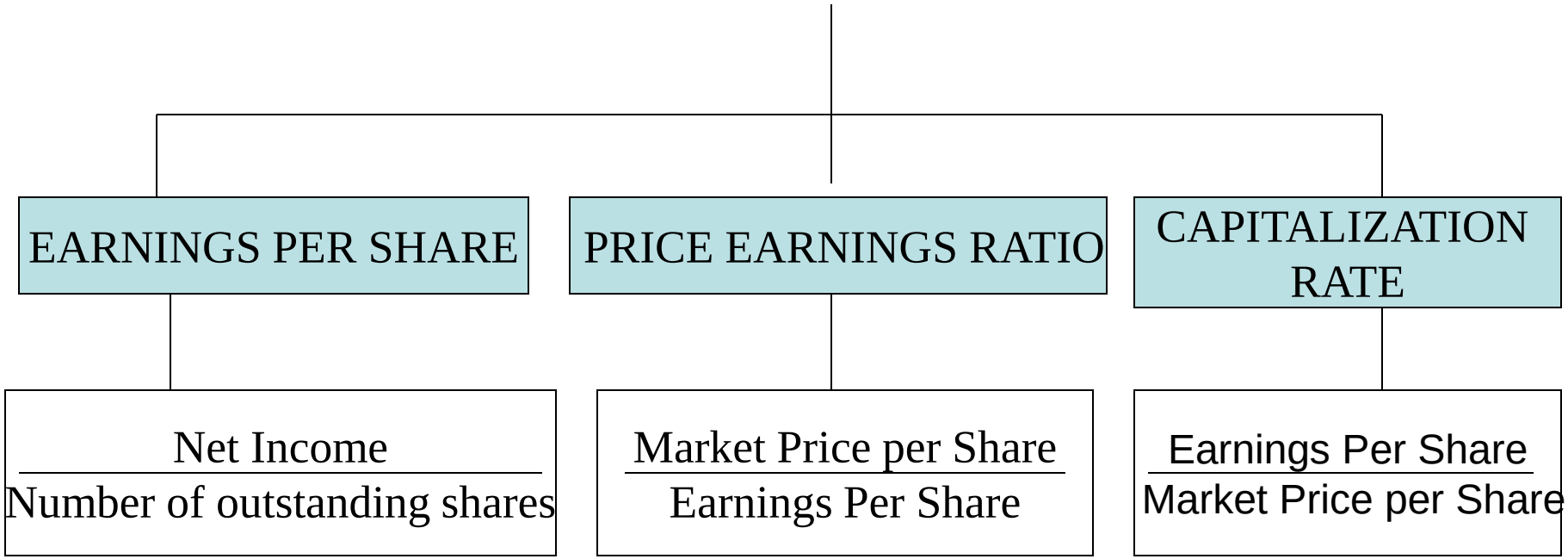


OWNERSHIP RATIOS



EARNINGS RATIOS

- They reflect the earnings of the firm and its affect on the market price of the stock.

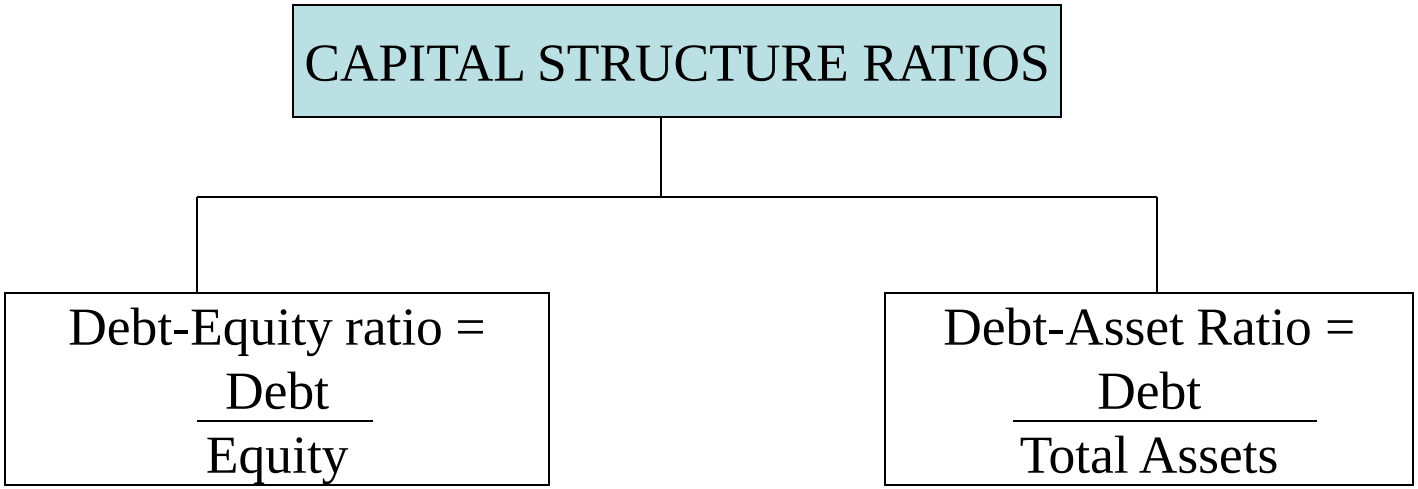


LEVERAGE RATIOS

- They reflect the long-term solvency of the firm.
- There are two categories of leverage ratios:

(a) **Capital Structure Ratios**: They indicate the mix of debt and equity in the capital structure of the firm.

(b) **Coverage Ratios**: They help to compute the firm's ability to meet interest and other fixed charges.


CAPITAL STRUCTURE RATIOS
Debt-Equity ratio = Debt / Equity
Debt-Asset Ratio = Debt / Total Assets

COVERAGE RATIOS

Interest Coverage Ratio =

$$\frac{\text{EBIT}}{\text{Interest Expense}}$$

Fixed Charges Coverage ratio =

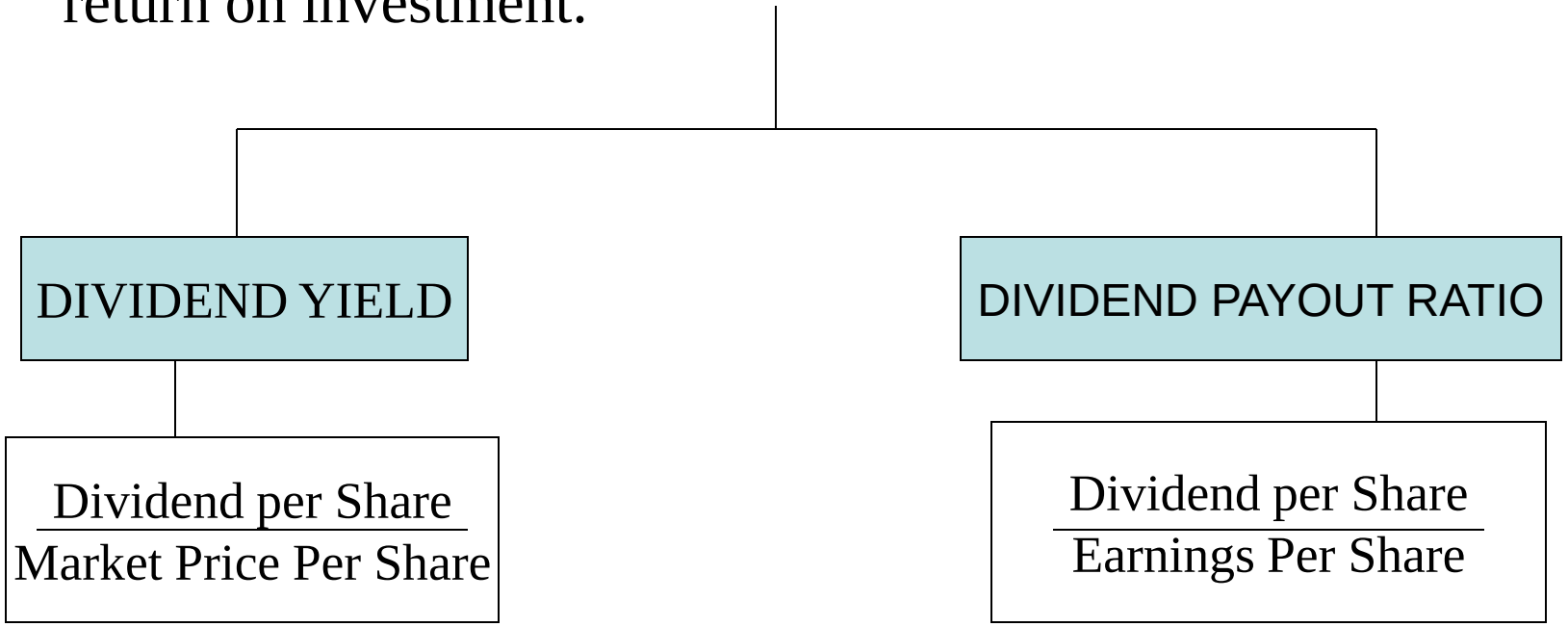
$$\frac{\text{[Earnings before depreciation, interest, Lease rentals and taxes]}}{\text{[Debt interest + Lease rentals + } \frac{\text{Loan repayment installment}}{\text{(1-tax rate)}} + \frac{\text{Pref. Dividend}}{\text{(1-tax rate)}}\text{]}}$$

Debt Service Coverage Ratio =

$$\frac{\text{[PAT+ Depreciation+ Other non-cash charges+ Interest on term loan]}}{\text{[Interest on term-loan + Repayment of the term loan]}}$$

DIVIDEND RATIOS

- These ratios help in computing the percentage of total earnings distributed as dividends and in finding the investor's current return on investment.



DU PONT ANALYSIS

- It helps in analyzing the Return on Equity in terms of three components:

1. Operating Efficiency (as measured by profit margin)

2. Asset Use Efficiency (as measured by average asset turnover)

3. Financial Leverage (as measured by the equity multiplier)

DU PONT ANALYSIS

- **Return on Equity (ROE)** = Net Profit Margin x Average Asset Turnover x Equity Multiplier

- Equity Multiplier = $\frac{\text{Average Assets}}{\text{Average Equity}} = \frac{1}{1 - \text{Debt to Assets ratio}}$

LIMITATIONS OF FINANCIAL STATEMENT ANALYSIS

- Window-dressing
- Developing benchmarks for diversified firms
- Accounting for inflation
- Discrepancies in accounting principles
- Interpretation of results
- Correlation among ratios

Thank you