SECURITY ANALYSIS & PORTFOLIO MANAGEMENT

UNIT III

Security Analysis

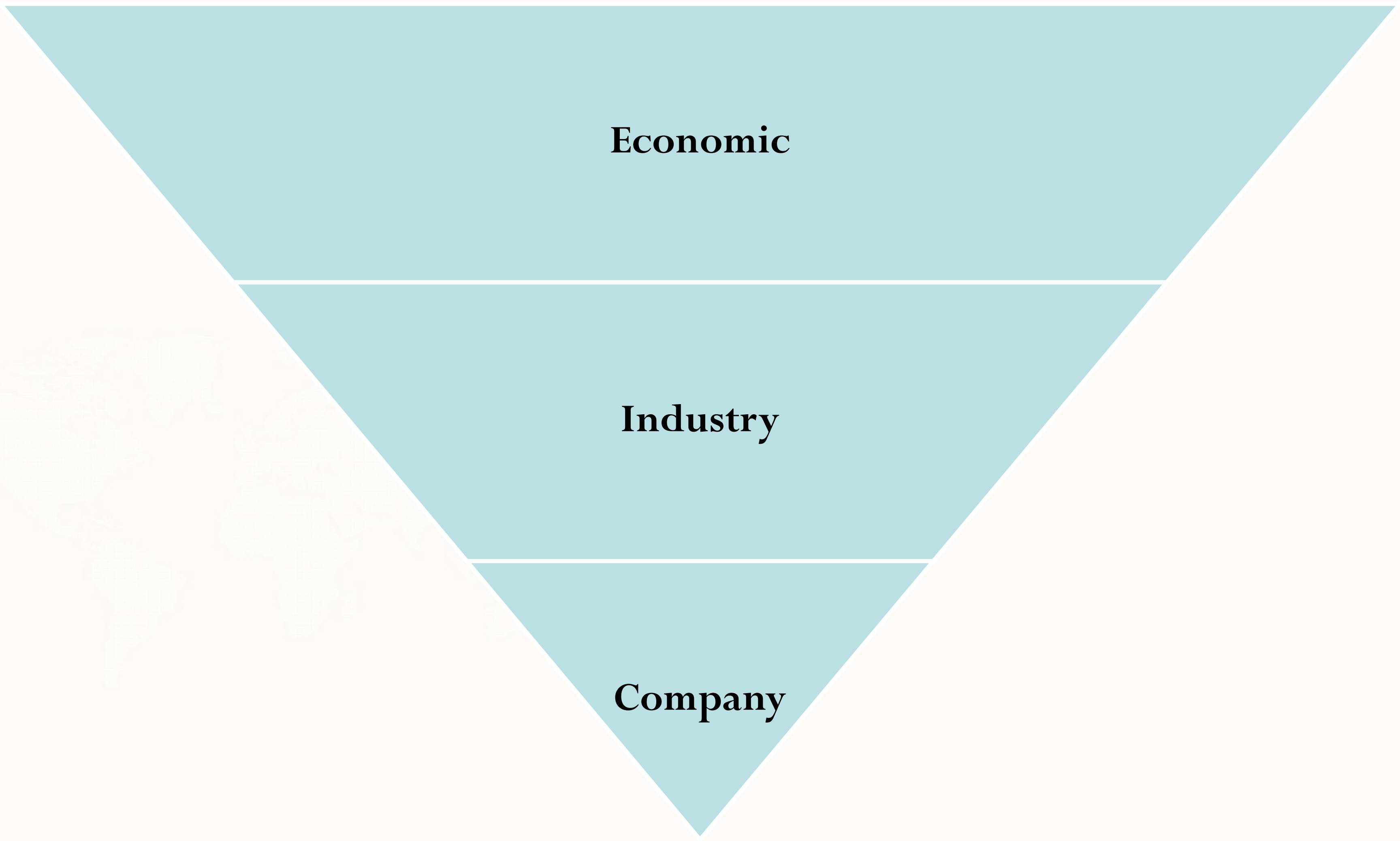
- Fundamental Analysis (Theoretical Basis)
- Technical Analysis (Comparative Study)

FUNDAMENTAL ANALYSIS

-Analysis of critical factors that affect the value of a stock.

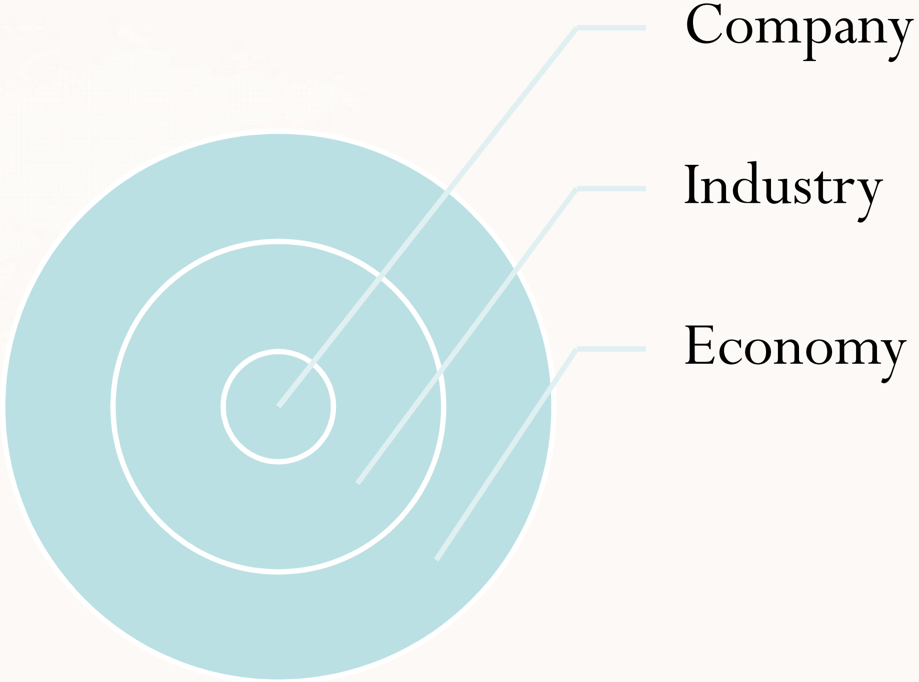
-A combination of Economic, Industry and Company analysis *to obtain a stock's current fair value and predict its future value*.

-Also known as *"top-down approach"* and also called as "*EIC Framework / Analysis*"


Economic
Industry
Company

Economic Analysis

- Stock market is an Integral part of the economy



-Macro economic environment – behavior of stock prices

-Economic Activity $\longrightarrow$ Stock Prices

Macro Economic Factors

- Gross Domestic Product (GDP)
- Savings and Investment
- Inflation
- Interest Rates
- Budget and Fiscal Deficit
- Tax Structure
- The Balance of Payments (BoP)

- Investment by FIIs
- International Economic Conditions
- Business Cycle and Investor Psychology
- Monsoon and Agriculture
- Infrastructure Facilities
- Demographic Factors

	Weight (2004-05)	Weight (1993-94)
ALL COMMODITIES	100	100
I. PRIMARY ARTICLES	20.1	22.0
(A) Food Articles	14.3	15.4
(B) Non-Food Articles	4.3	6.1
(C) Minerals	1.5	0.5
II. FUEL & POWER	14.9	14.2
(A) Coal	2.1	1.8
(B) Mineral Oils	9.4	7.0
(C) Electricity	3.5	5.5
III. MANUFACTURED PRODUCTS	65.0	63.7
(A) Food Products	10.0	11.5
(B) Beverages, Tobacco & Tobacco Products	1.8	1.3
(C) Textiles	7.3	9.8
(D) Wood & Wood Products	0.6	0.2
(E) Paper & Paper Products	2.0	2.0
(F) Leather & Leather Products	0.8	1.0
(G) Rubber & Plastic Products	3.0	2.4
(H) Chemicals & Chemical Products	12.0	11.9
(I) Non-Metallic Mineral Products	2.6	2.5
(J) Basic Metals, Alloys & Metal products	10.7	8.3
(K) Machinery & Machine Tools	8.9	8.4
(L) Transport, Equipment & Parts	5.2	4.3

ECONOMIC FORECASTING

Economic activities

affect

↓

Corporate Profits

Investor Attitudes

Share Prices

FORECASTING TECHNIQUES

1) Economic Indicators

Any economic variable that predicts the future of financial or economic trends is called an economic indicator.

- Helps to make an early diagnosis of cyclical movement.
- It points out the present status, progress or slowdown of the economy.

Classification of Indicators

Selected on the basis of

- ✓ Economic significance
- ✓ Statistical Adequacy
- ✓ Timing
- ✓ Conformity

i. ***Leading Indicators* –** Indicate what is going to happen

ii. ***Coincidental Indicators* –** indicate the state of the economy

iii. ***Lagging Indicators* –** Changes occurring in both

i) Leading Indicators

- **Manufacturing Activity**
- **Inventory Levels**
- **Retail Sales**
- **Level of New Business Startups**

iii) Coincidental Indicators

- **Personal Income**

iii) Lagging Indicators

- **Changes in the Gross Domestic Product (GDP)**
- **Income and Wages**
- **Unemployment Rate**
- **Consumer Price Index (Inflation)**
- **Currency Strength**
- **Interest Rates**
- **Corporate Profits**
- **Balance of Trade**

2) Diffusion Index

- Indicates the current business cycle phase.
- It measures the breadth of a business cycle movement (Expansion or Contraction)
- It is a Composite or consensus index.

INDUSTRY ANALYSIS

- Industry is a group of firms that have similar technological structure of production and produce similar products.
- Analysis of the performance, prospects and problems
- Return and risk level of each industry differs
- The performance of the industry reflects the performance of the company it consists of.

KINDS OF INDUSTRIES

- On the basis of the reactions to the different phases of Business Cycle

1. Growth Industry – high rate of earnings and growth in expansion and independent of business cycle.

Ex: Pharma, Telecommunication

2. Cyclical Industry – Growth and profitability move tandem with the business cycle.

Ex: White Goods- Fridge, Washing Machine and Kitchen Products

3. ***Defensive Industry*** – defies the movement of the business cycle

Ex: Food and Shelter

4. ***Cyclical Growth Industry*** – Cyclical at the same time growing because of the Changes in technology and innovation.

Ex: Automobiles, Televisions

INDUSTRY LIFE CYCLE

- Four stages by Julius Grodinsky, a professor at the Wharton School of Business.

- ***Pioneering Stage***
- ***Rapid Growth Stage***
- ***Maturity & Stabilization Stage***
- ***Declining Stage***

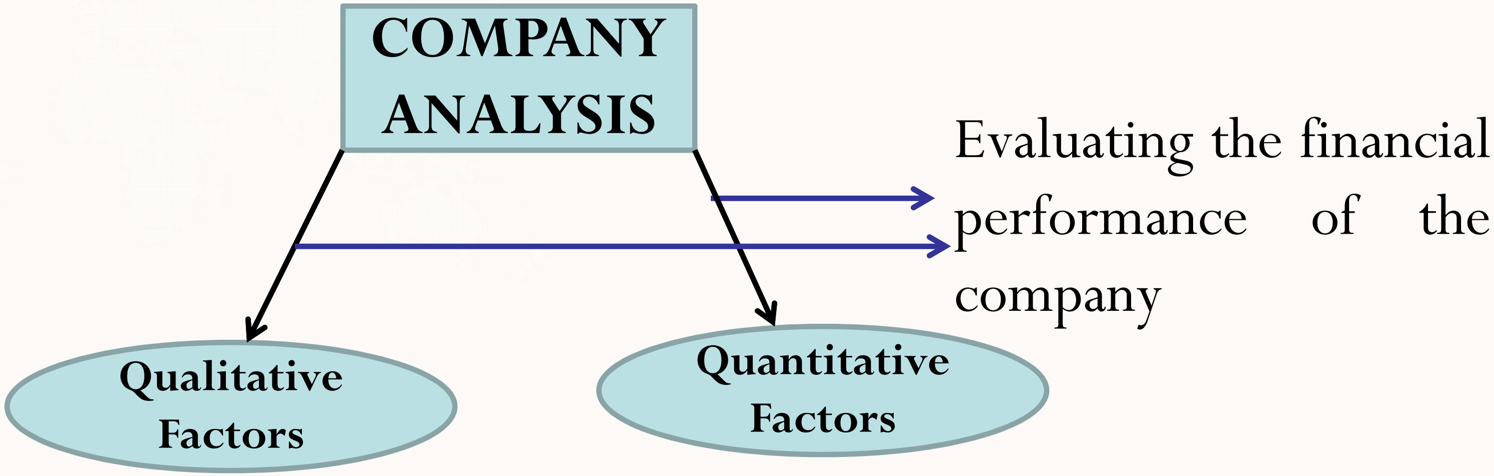
Factors

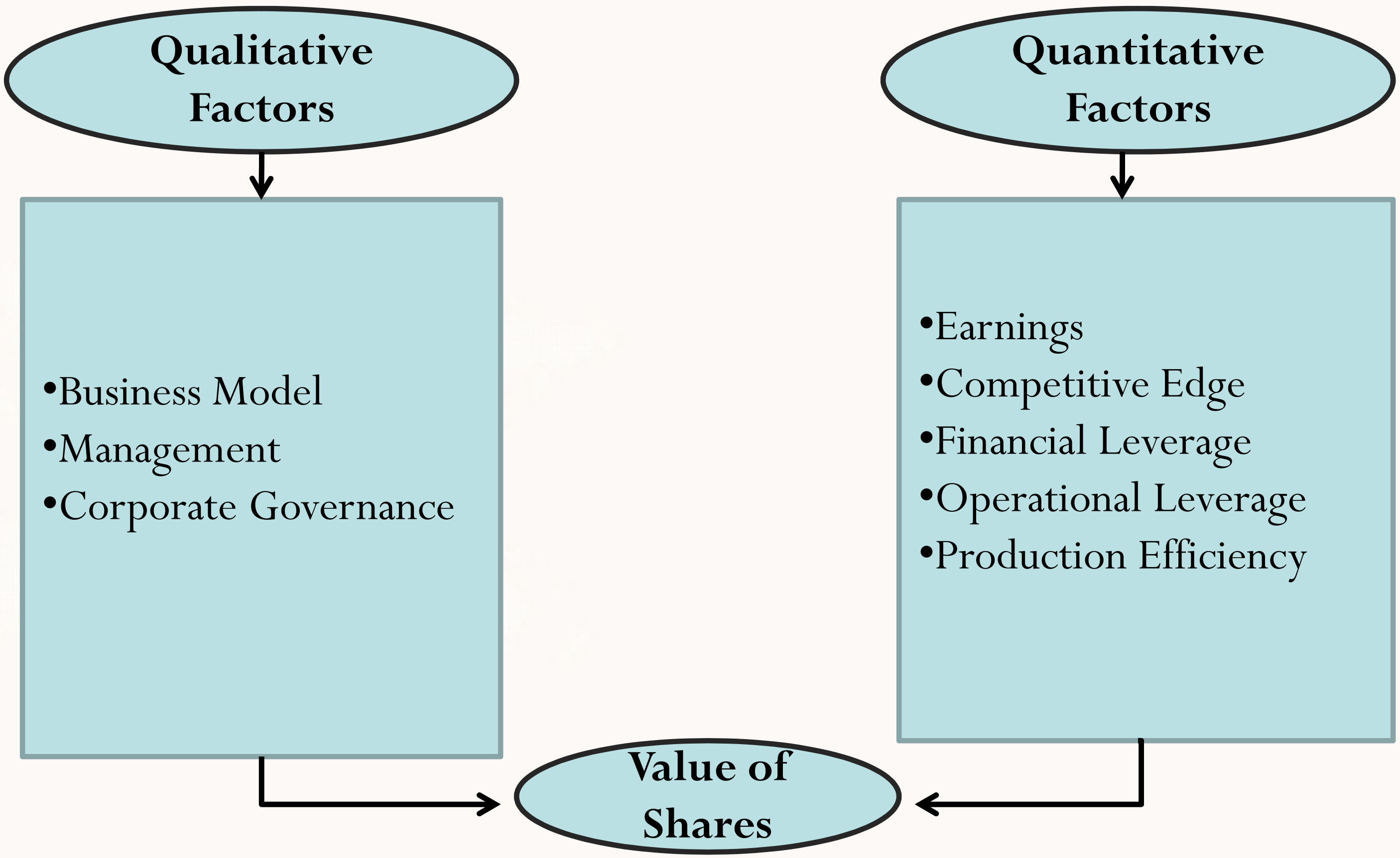
Apart from industry life cycle analysis, the investor has to analyze some other factors too. They are,

- Growth of the industry
- Cost structure and profitability
- Nature of the product
- Nature of the competition
- Government policy
- Labour
- Research and development
- Pollution Standards

COMPANY ANALYSIS

The present and future valuation of stock process depends on the investor's ability to look for the right information from the inter-relationships of the company variables.




Qualitative Factors
•Business Model
•Management
•Corporate Governance
Quantitative Factors
•Earnings
•Competitive Edge
•Financial Leverage
•Operational Leverage
•Production Efficiency
Value of Shares

Qualitative Factors

1) Business Model

- Describes the way in which a company makes money
- Explains what exactly a company does
- Provides the description of the company's operations and <u>***mode of revenue generation, nature of expenses, organizational structure and its sales and marketing effects***</u>.
- Reveals the possible success level of the company.

Ex: Tata Motors

2) Management

- Objective is to attain the stated objectives of the company for the good of the equity holders, the public and the employees. If the objectives are achieved, investor will receive profit.
- Investor will come to know the management profile of the company from the websites.

Sources of management Analysis

Conference Calls

- Hosted by CEO, CFO and other Executives
- Host reads the financial result of the company
- Question and Answer session
- Analyst can ask direct questions to the management

Management Discussion and Analysis (MD&A)

- Company annual report begins with the section called MD&A.
- Frank Commentary on the outlook of the management.
- Contains overview, financial overview and shows the business model, alliances, JV and judgment regarding disputes.
- Investor can find the gap b/w stated and implemented strategies and switch between net and gross income which will then affect the amount of EPS

Management ownership of the equity stock

- Management team owns stock of the company (10%)

3) Corporate Governance

- Refers to the set of systems and practices put in place by a company to ensure ***accountability, transparency, and fairness in dealings*** to safeguard the interests of the stakeholders.

Areas of Corporate Governance

- *Structure of the Board of Directors (Internal and Independent Directors)*
- *Financial and Information Transparency (Consistent accounting standards and comparable practices)*
- *Stakeholder Rights (Policies benefit shareholders' interest)*
- *Corporate Culture (Collective Beliefs, Value Systems & Processes - values stakeholders, Change agent)*

Quantitative Factors

1) **Earning of the Company** - (Operating & Non-Operating Sources)

- Net Income
- Earnings Per Share (EPS)
- Diluted EPS
- Growth Rate
- P/E Ratio
- Intrinsic Value

2) Financial Leverage

- Capital Structure
- Earnings Limit to Debt – Interest Coverage Ratio
- Asset Limit to Debt – Fixed Asset to Debt Ratio

3) Operating Leverage

- Fixed Cost
- Variable Cost

4) Competitive Edge

- Market Share
- Growth of Annual Sales
- Stability of Annual Sales
- Sales Forecast

5) Production Efficiency

- Maximum Output
- Minimum Cost

6) Productivity

- Efficiency of Inputs
- Unit Costs
- Stock Levels
- Capacity Utilization

VALUATION RATIOS

- Earnings per Share (EPS)
- Price to Earnings (P/E) Ratio
- Growth Rate
- Book Value per Share (BV/S)
- Dividend Yield (*Dividend to Market Price*)

GRAHAM AND DODD'S INVESTOR RATIO

- Graham and Dodd believed that the intrinsic value of a stock can be determined based on the expected future earnings and dividend – an approach that has come to be known as *fundamental analysis*.
- Stocks that are selling at less than this intrinsic value may therefore be good as an investment opportunity.
- Graham and Dodd observed that for a group of large mature companies, that there was a particular relationship between Earnings Growth and Price to Earnings ratio (P/E).

- They found that the average number of growth stock sold at 8.5 times earnings and the price to earnings ratio increase by twice the rate of earnings growth. This lead to the earnings multiplier

$$P/E = 8.5 + (2*Growth)$$

where G is the rate of earnings growth, stated as a percentage.

- This equation can also be structured to solve for Price:

$$Price = Earnings * (8.5 + (2*Growth))$$

- If the calculated price is more than the current price then the stock is considered to be undervalued and this is a Buy Signal.
- They recommended that, to reduce the risk to the investors, stocks should only be considered if the actual price was 80% or less than the calculated price.
- The model is considered most useful for evaluating stocks that have advanced through several years of business cycle.