

# 23BAE707 - Security Analysis and Portfolio Management

## UNIT 3 – FUNDAMENTAL ANALYSIS

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# Applied Valuation

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Forecast not only the Expected Return but also the Expected Risk of an investment.

There are 3 modern techniques of Analysis:

Regression Analysis

Trend Analysis

Decision Tree Analysis

Approaches to Stock Valuation

P /E ratio models

Dividend Discount Model Applied Valuations



# Regression Analysis

In statistical modeling, **regression analysis** is a statistical process for estimating the relationships among variables.

It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.



# Trend Analysis

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Trend Analysis of a Time Series utilizes regression analysis.

Differentiation between Trend Analysis & Regression Analysis

Examine behavior of economic series over a period of time i.e. one real' variable which is being regressed over a period of years



# Decision Tree

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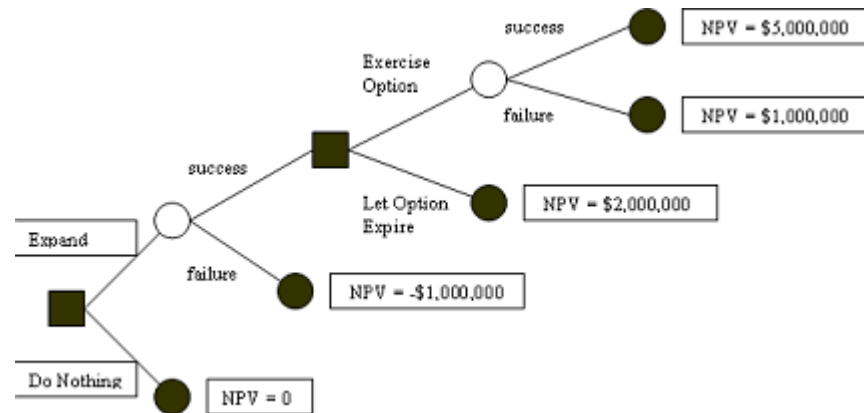
A decision tree is a graph that uses a branching method to illustrate every possible outcome of a decision.

Decision trees can be drawn by hand or created with a graphics program or specialized software.

Informally, decision trees are useful for focusing discussion when a group must make a decision.

Programmatically, they can be used to assign monetary/time or other values to possible outcomes so that decisions can be automated.

Decision tree software is used in data mining to simplify complex strategic challenges and evaluate the cost-effectiveness of research and business decisions. Variables in a decision tree are usually represented by circles.







# Factors that affect present and future values

## 1. Competitive Edge of the company

- ✓ Market share
- ✓ Growth of sales
- ✓ Stability of sales

## 2. Accounting Policies

- ✓ Inventory pricing
- ✓ Depreciation methods
- ✓ Non-operating income
- ✓ Tax carryover



### 3. Profitability

- ✓ Gross Profit margin
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- ✓ Net Profit margin
  - ✓ Return on equity –  $\text{Net Income} / \text{Shareholders Equity}$
  - ✓ Earnings per share –  $\text{EAT} / \text{No.of.Shares}$
4. Dividend Policy
  5. Capital Structure
  6. Operating Efficiency
    - ✓ Operating Rate – Utilisation of plant capacity
    - ✓ Capital Expenditure – Investment of capital



# 7. Management

## ■ Organizational Performance

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- Effectiveness – Degree to which the company achieves its goals
- Efficiency – amount of resources required to produce a certain level of output.

## • Management Functions

- Planning – Setting goals and identifying tasks and resources
- Organizing – Assign tasks and allocating resources
- Leading - Motivating employees
- Controlling – Monitoring performance



Which is a statistical process for estimating the relationships among variables.



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# Thanks...