

Welcome

To

The World

of

Investments



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The World

of  
Investments



# Investment & Fundamental Analysis

-By Hemal Pandya

# Investments

- An investment is a commitment of funds to one or more assets that will be held over some future time period.
- It is the sacrifice of certain present value for the uncertain future reward.
- It is a trade-off between risk and return.
- Investor invests to improve his welfare through both current and future monetary wealth.



# Investment Process



# Investment Analysis

- Security Analysis
- Portfolio Management



# Investment Management

- Describes techniques, vehicles and strategies for planning, implementing and overseeing the optimal allocation of the funds of an investor or an institution in the changing investment environment.



# Security Analysis

- A security is an instrument of promissory note or a method of borrowing or lending or a source of contributing to the funds needed by a corporate or non-corporate body.
- Security Analysis involves the projection of future dividends or earnings flows, forecast of the share price in the future and estimating the intrinsic value of the security.
- It is essentially an analysis of the fundamental value of a share and its forecast for the future through the calculation of its intrinsic worth of the share.

# Portfolio Management

- A Portfolio is a combination of various assets and/or instruments that may have different features of risk and return, separate from those of the components.
- A Portfolio is built up out of the wealth or income of the investor over a period of time, with a view to suit his risk-return preferences to that of the portfolio that he holds.
- Portfolio Analysis/Management is thus an analysis of the risk-return characteristics of individual securities in the portfolio and changes that may take place in combination with other securities due to interaction among themselves and impact of each one of them on others.



# Realistic Investor Goals

- Capital preservation
  - minimize risk of real loss
  - strongly risk-averse or funds needed soon
- Capital appreciation
  - capital gains to provide real growth over time for future need
  - aggressive strategy with accepted risk
- Current income
  - generate spendable funds



# Realistic Investor Goals

- Maximize total return
  - capital gains and income reinvestment
  - moderate risk exposure



# Investment Constraints

- Liquidity needs
  - near-term goals
- Time horizon
  - longer time horizon favors risk acceptability
  - short time horizon favors less risky investments because losses are harder to overcome in a short time frame



# Investment Constraints

- Tax concerns
  - interest and dividends taxed at investor's marginal tax rate
  - capital gains may be unrealized
  - basis and gain or loss realized
  - revisions to capital gains tax rates
  - tradeoff with diversification needs for employer's stock holdings

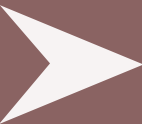
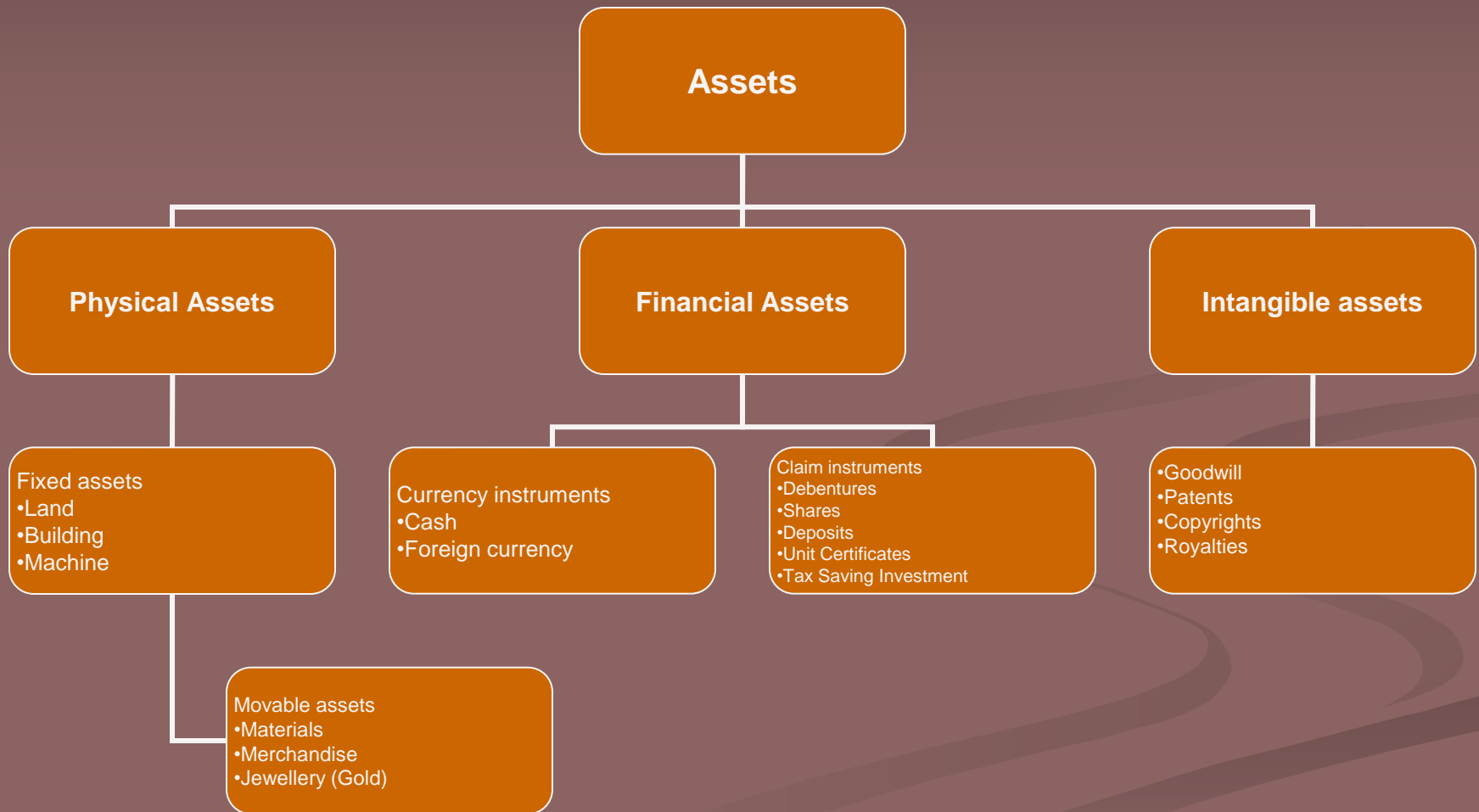


# Legal and Regulatory Factors

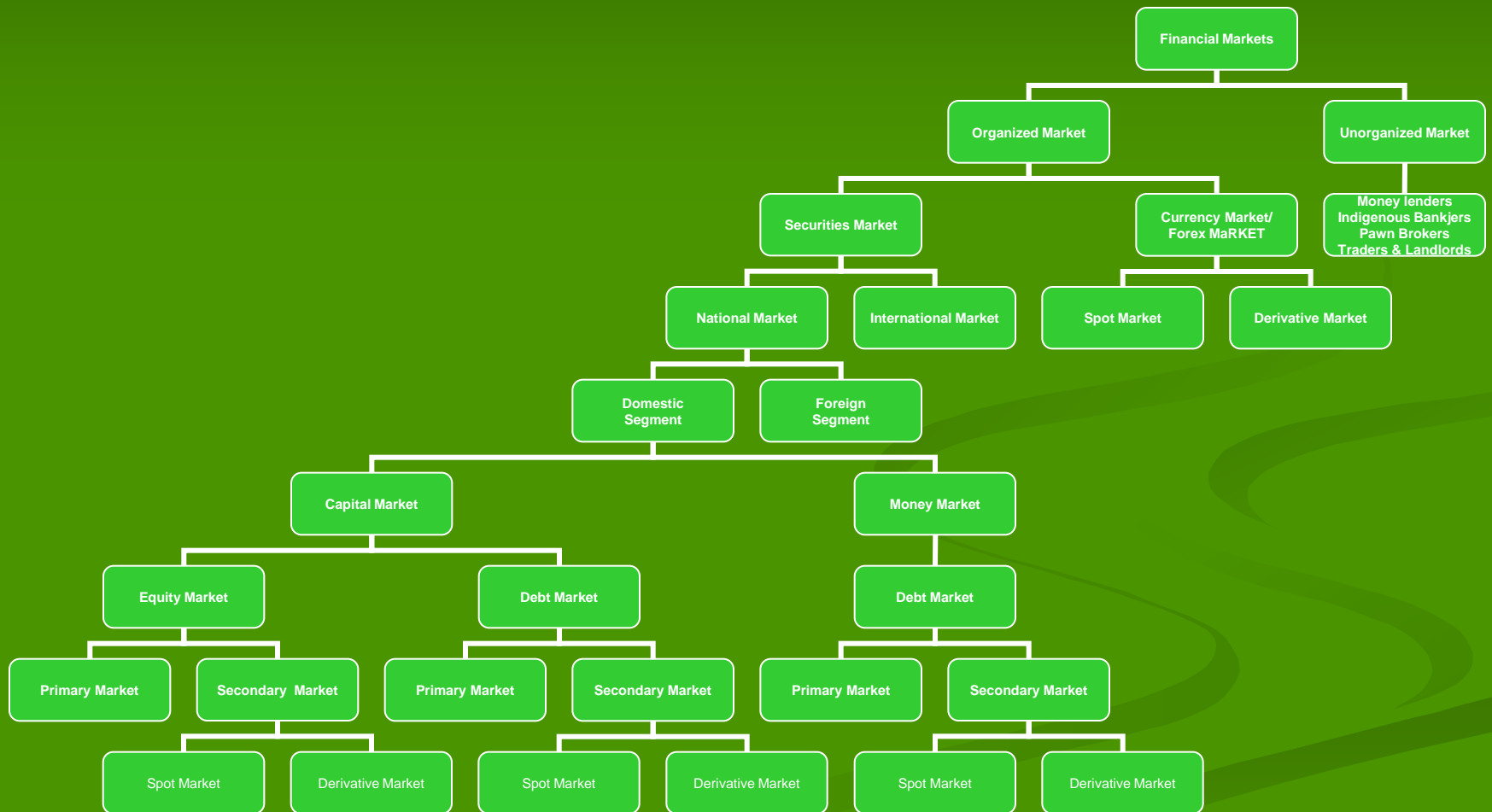
- Limitations or penalties on withdrawals
- Fiduciary responsibilities - “prudent man” rule
- Investment laws prohibit insider trading



# Assets



# Financial Markets



# Capital Markets

- Industrial Securities Market:
  - Primary Markets
  - Secondary Markets
- Govt. Securities Market
- Long Term Loans Market
  - Term Loan Market
  - Market of Mortgages
  - Market of Financial Guarantees



# Primary/New Issues Market

- Three ways by which a company may raise capital in a primary market:

Public Issue

Rights Issue (to existing shareholders)

Private Placement (selling securities privately to a small group of investors).

# Secondary Market

- It is a market for old securities, i.e., those which have been already issued and listed on a Stock Exchange.
- These securities are purchased and sold continuously among investors without the involvement of the companies.
- Distinct from Primary market on three grounds:
  - Functional Difference
  - Organizational Difference
  - Nature of Contribution to industrial finance

# Functions/Services of Stock Exchanges

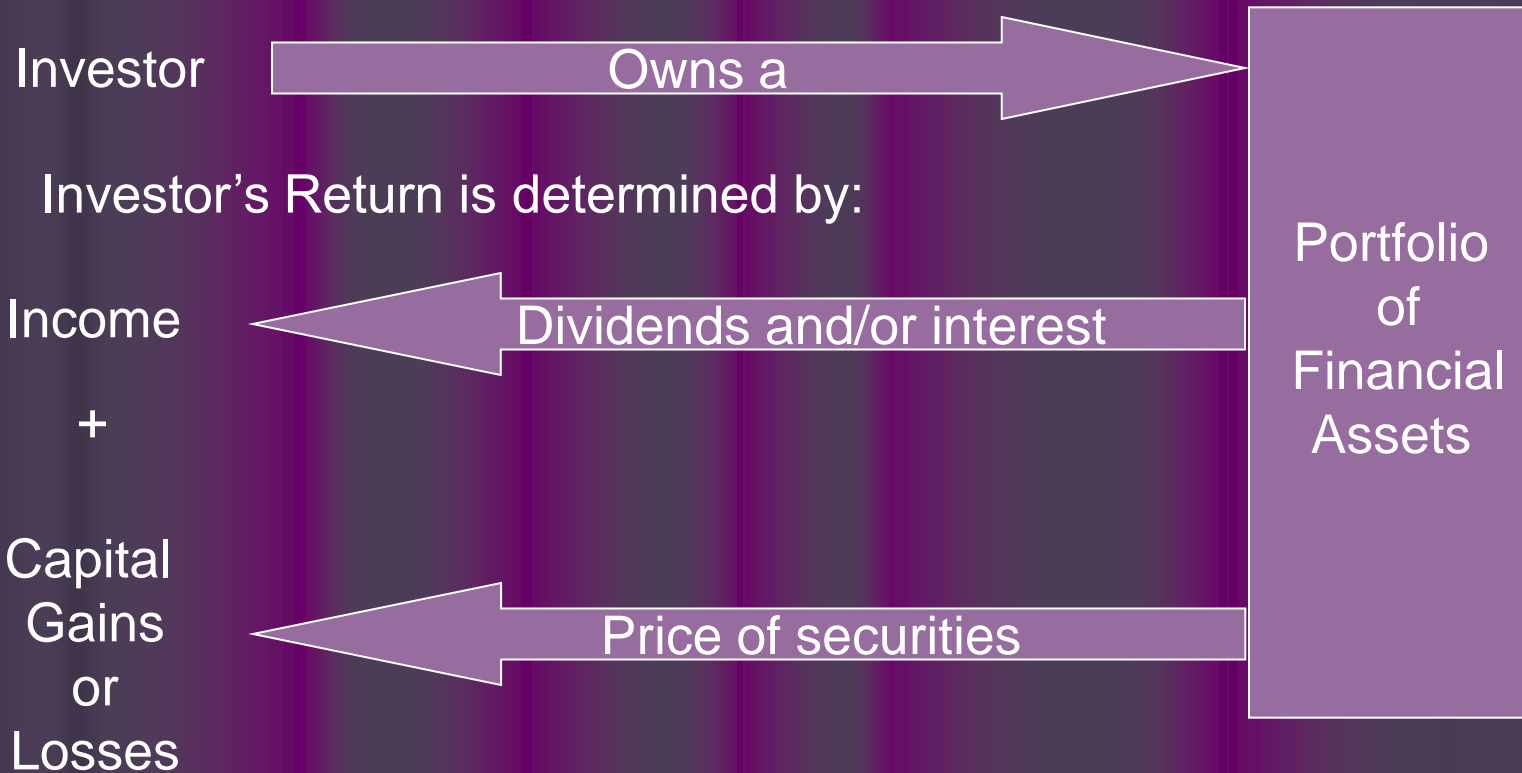
- Liquidity and Marketability of Securities
- Safety of Funds
- Supply of Long Term Funds
- Flow of Capital to Profitable Ventures
- Motivation for Improved Performance
- Promotion of Investment
- Reflection of Business Cycle
- Marketing of New Issues
- Miscellaneous Services

# Investment Modes

- Direct Investing
- Indirect Investing



# Direct Investing



# Direct Investment Alternatives

## ❖ Non-marketable Assets

- Savings deposits
- Certificates of deposits
- Money market deposit accounts
- Saving bonds

## ❖ Money Market

- Treasury bills
- Certificates of deposits
- Commercial papers
- Eurodollars
- Repurchase Agreements
- Banker's Acceptances

## ❖ Capital Market

### ➤ Fixed income

Treasuries

Agencies

Municipals

Corporates

### ➤ Equities

Preferred stock

Common stock

## ❖ Derivatives Market

### ➤ Options

### ➤ Future contracts



# Indirect Investing

Investor

Owens shares in an

Investment Company's Fund which is a

Investor's return is determined by:

Distributed To Shareholders as

Which are

Dividends and/or interest

Which generates

Portfolio of Financial Assets

Distributed To Shareholders as

Which are

Capital Gains distribution

and generates

Income +

Capital Gains or Losses + Capital Gain or Loss

Results In a

Shares in the fund by the investor

and the Sale of






# Indirect Investment Alternatives

- ◆ Unit investment trust
- ◆ Open end
  - Money market mutual fund
  - Stock, bond and income funds
- ◆ Closed end
- ◆ Exchange traded fund





# Investment Attributes

-  Rate of Return
-  Risk
-  Marketability
-  Tax Shelter
-  Convenience



# Efficient Market Hypothesis

- EMH is the idea that asset prices reflect the present value of the expected future returns from the asset.
- It assumes that all available information is incorporated in prices and that traders will bid prices up or down until assets are priced correctly.
- If EMH were true no investor could 'beat the market' for long.

# Efficient Markets

- Opportunities are mostly among less well-known companies
- To outperform the market you must find disparities between stock values and market prices - and you must be correct
- Concentrate on identifying what is wrong with the market consensus and what earning surprises may exist
  - Again, useful to examine the expectations that underlie the current market price
  - Are these realistic/optimistic/pessimistic?



# Different Forms of EMH

- Strong Form of EMH: The current price reflects all the information available. Because all possible information is already reflected in the price, investors and traders will not be able to find or exploit inefficiencies based on fundamental information.
- Tests of this form: Specialists, Insider Trading, price overreactions, Calendar Anomalies, Excess Volatility, Normal range of interest rates, The crash of 1987.
- Semi-Strong Form of EMH: Current prices reflect all readily available (publicly declared) information.
- Tests of this form: Event Study, Portfolio study,
- Weak Form of EMH: Current prices do not reflect fair value and is only a reflection of past prices.
- Tests of this form: Simulation tests, Serial Correlation tests, Runs test, Filter test, Spectral Analysis.

# Investment Strategies

## Active Strategy

- \* Market Timing
- \* Sector Rotation
- \* Security Selection
- \* Use of a Specialized Concept

## Passive Strategy

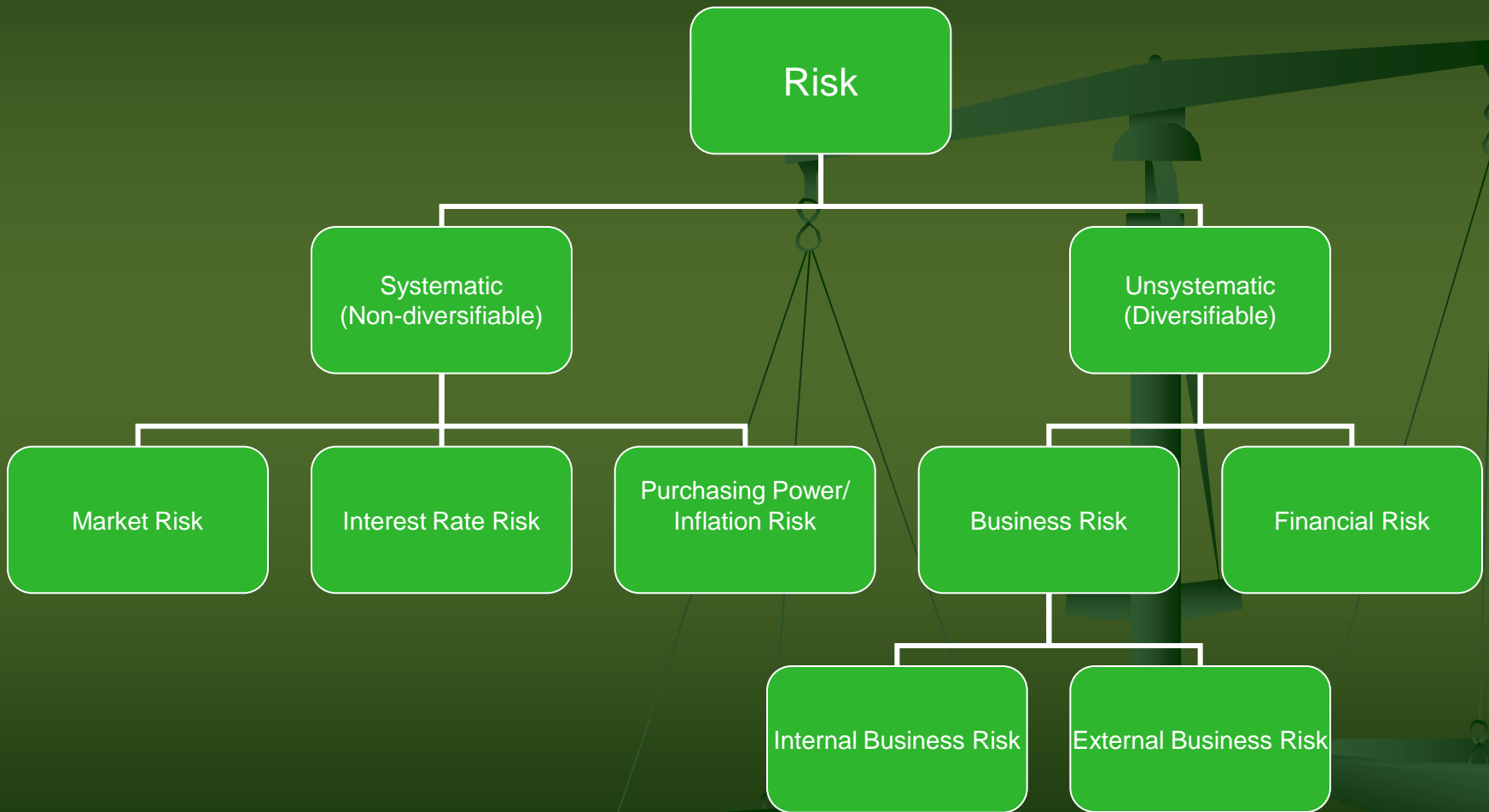


# Risk-Return Framework

- The return from a security includes both current income and capital gain/loss caused by appreciation of its price.
- Risk is the flipside of return. It is the possibility that an investment will not turn out as well as expected.
- Total Risk = General Risk + Specific Risk
  - = Market Risk + Issuer Risk
  - = Systematic Risk + Unsystematic Risk
  - = Non-diversifiable Risk + Diversifiable Risk



# Risk Classification



# Stream of Expected Returns

- First item to estimate
- Two considerations:
- Form of returns
  - Earnings
  - Cash flows
  - Dividends
  - Interest payments
  - Capital gains (increases in value)
- Time pattern and growth rate of returns





# Required Rate of Return

- Second item to estimate
- Determined by
  - 1. Economy's risk-free real rate of return, plus
  - 2. Expected rate of inflation during the holding period, plus
  - 3. Risk premium determined by the uncertainty of returns

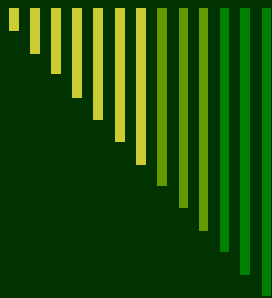


# Uncertainty of Returns

There are many different sources of uncertainty:

- Internal characteristics of assets
  - Business risk (BR)
  - Financial risk (FR)
  - Inflation risk (IR)
  - Liquidity risk (LR)
  - Exchange rate risk (ERR)
  - Country risk (CR)
- Market determined factors
  - Systematic risk (beta) or
  - Multiple APT factors





# Measures of Risk and Return

# The Investment Decision Process

- Determine the required rate of return
- Evaluate the investment to determine if its market price is consistent with your required rate of return
  - Estimate the value of the security based on its expected cash flows and your required rate of return
  - Compare this intrinsic value to the market price to decide if you want to buy it
- But how do you narrow down the list of potential investments to a reasonable level?



# Theory of Valuation

- The value of an asset is the present value of its expected returns
- You expect an asset to provide a stream of returns while you own it
- To convert this stream of returns to a value for the security, you must discount this stream at your required rate of return
- This requires estimates of:
  - The stream of expected returns, and
  - The required rate of return on the investment

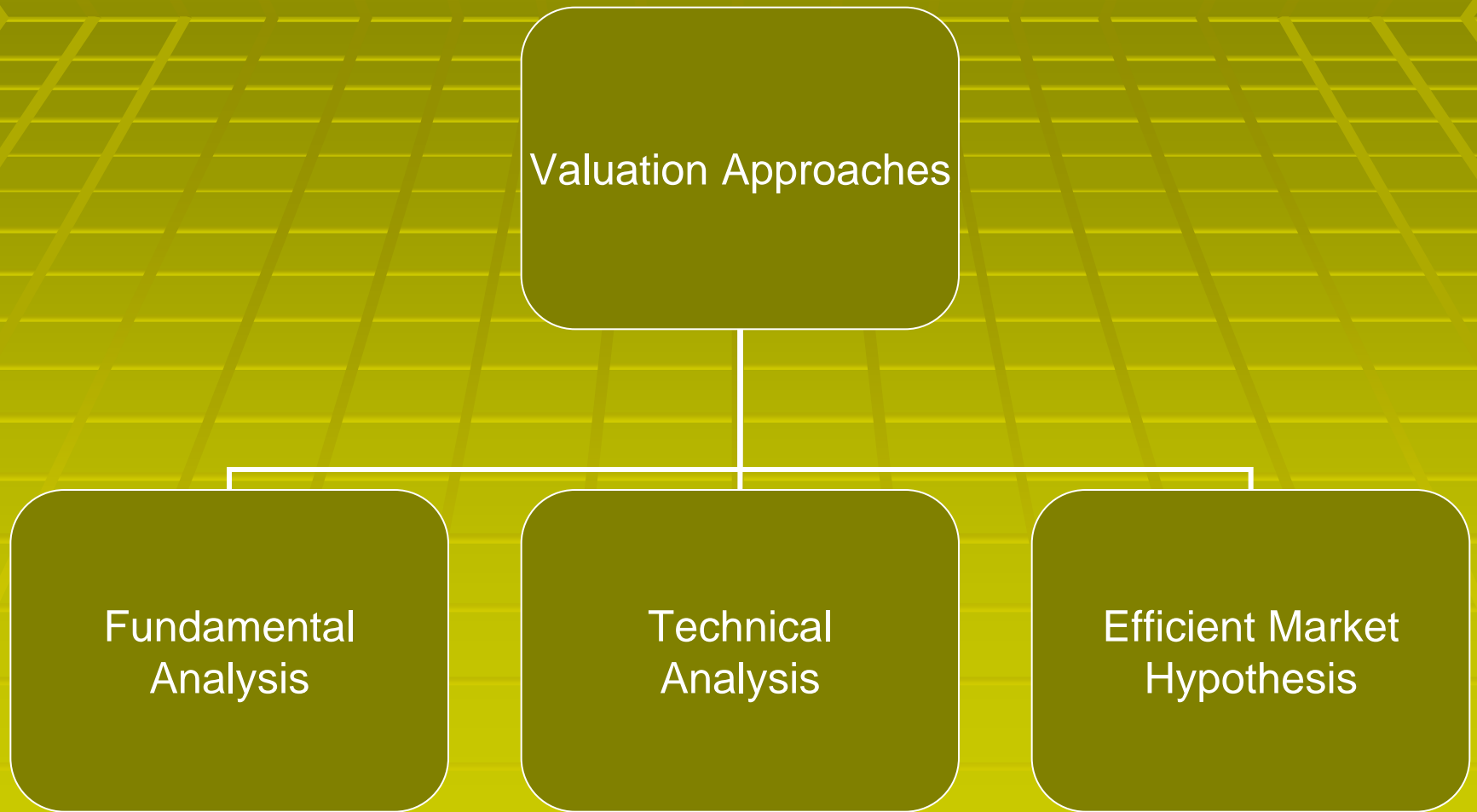


# Valuation Process

- Two general approaches:
  1. Top-down, three-step approach
  2. Bottom-up, stock valuation, stock picking (stock screening) approach
- The difference between the two approaches is the perceived importance of economic and industry influence on individual firms and stocks



# Approaches to Valuation



# Intrinsic Value

Intrinsic Value of the Share

Earnings Potential  
EPS

Book Value=(Net Worth/No. of Shares)

Earnings Depend on:

- Regular Income Receipts/Dividends
- Capital Appreciation/Depreciation



# Selection of Securities

- Fundamental Analysis (EIC Analysis)
- Technical Analysis



# Top-Down, Three-Step Approach

## 1. General economic influences

- Decide how to allocate investment funds among countries, and within countries to bonds, stocks, and cash

## 2. Industry influences

- Determine which industries will prosper and which industries will suffer on a global basis and within countries

## 3. Company analysis

- Determine which companies in the selected industries will prosper and which stocks are undervalued



# The Basics of Fundamental Analysis

## Fundamental Analysis Definition

Fundamental analysis is a stock valuation method that uses financial and economic analysis to predict the movement of the stock prices.

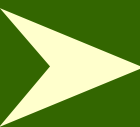
The fundamental information that is analyzed can include a company's financial reports, and non-financial information such as estimates of the growth of demand for products sold by the company, industry comparisons, and economy-wide changes, changes in government policies etc..

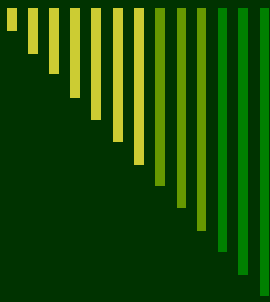


# General Strategy

- To a fundamentalist, the market price of a stock tends to move towards its “real value” or “intrinsic value”. If the “intrinsic/real value” of a stock is above the current market price, the investor would purchase the stock because he knows that the stock price would rise and move towards its “intrinsic or real value”

If the intrinsic value of a stock was below the market price, the investor would sell the stock because he knows that the stock price is going to fall and come closer to its intrinsic value.





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# Economic Analysis

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# What are Economic Indicators?

- An economic indicator is simply any economic statistic, such as the unemployment rate, GDP, or the inflation rate, which indicate how well the economy is doing and how well the economy is going to do in the future.



# Three major attributes of an economic indicator

1. Relation to the Business Cycle / Economy
2. Frequency of the Data
3. Timing



# Relation to the Business Cycle / Economy

- Economic Indicators can have one of three different relationships to the economy:
  - **Procylic:** A procylic (or procylical) economic indicator is one that moves in the same direction as the economy. So if the economy is doing well, this number is usually increasing, whereas if we're in a recession this indicator is decreasing. The Gross Domestic Product (GDP) is an example of a procylic economic indicator.
  - **Countercyclic:** A countercyclic (or countercyclical) economic indicator is one that moves in the opposite direction as the economy. The unemployment rate gets larger as the economy gets worse so it is a countercyclic economic indicator.
  - **Acyclic:** An acyclic economic indicator is one that has no relation to the health of the economy and is generally of little use. The number of home runs the Montreal Expos hit in a year generally has no relationship to the health of the economy, so we could say it is an acyclic economic indicator.





# Frequency of the Data

In most countries GDP figures are released quarterly (every three months) while the unemployment rate is released monthly. Some economic indicators, such as the Dow Jones Index, are available immediately and change every minute.



# Timing

- Economic Indicators can be leading, lagging, or coincident which indicates the timing of their changes relative to how the economy as a whole changes.
  - **Leading:** Leading economic indicators are indicators which change before the economy changes. Stock market returns are a leading indicator, as the stock market usually begins to decline before the economy declines and they improve before the economy begins to pull out of a recession. Leading economic indicators are the most important type for investors as they help predict what the economy will be like in the future.
  - **Lagged:** A lagged economic indicator is one that does not change direction until a few quarters after the economy does. The unemployment rate is a lagged economic indicator as unemployment tends to increase for 2 or 3 quarters after the economy starts to improve.
  - **Coincident:** A coincident economic indicator is one that simply moves at the same time the economy does. The Gross Domestic Product is a coincident indicator.



# Economic Analysis-Key Variables

- Growth rate of GDP
- Industrial Growth Rate
- Agriculture and Monsoon
- Savings and Investments
- Govt. Budget Surplus/Deficit
- Tax Structure
- BOP, Forex Reserves and Exchange Rates
- Infrastructural Facilities and Arrangements
- Demographic Factors
- Sentiments



# Categories of Economic Indicators

- Leading Indicators
- Coincidental Indicators
- Lagging Indicators
- Diffusion Index Constructed by NBEA (USA)



# Gross Domestic Product (GDP)

- **Definition:** The gross domestic product (GDP) is the most important economic indicator. It represents a broad measure of economic activity and signals the direction of overall aggregate economic activity.
- **Related Indicators:** GNP, Personal Income. The GDP report also includes inflation information in the form of data on a number of Price Deflators of GDP and its components.
- **Frequency:** The GDP report is published quarterly and revised monthly. The GDP for a given quarter is released in the first month following a quarter as the "advance estimate". The "preliminary estimate" is published in the second month, followed by the "revised" estimate in the third month.
  - **Availability:** 3-4 weeks following the reported quarter
  - **Direction:** Pro-Cyclical
  - **Timing:** Coincident indicator of the business cycle
  - **Volatility:** Moderate



# GDP: Likely Impact on Financial Markets

- **Interest Rates:** Unexpectedly high quarterly GDP growth is perceived to be potentially inflationary if the economy is close to full capacity; this, in turn, causes bond prices to drop and yields and interest rates to rise. Also, higher than expected GDP growth, i.e. good news about the economy, is bad news for the bond market because a strong report causes concern that the Fed might raise the Fed Funds rate to avoid higher inflation. This is bearish for the fixed income market.
- **Stock Prices:** Ambiguous. On one side higher than expected growth leads to higher profits and that's good for the stock market. On the other, it may increase expected inflation and lead to higher interest rates that are bad for the stock market.
- **Exchange Rates:** Larger than expected GDP growth will tend to appreciate the exchange rate as it is expected to lead to higher interest rates.
- **Ability to affect markets:** Strong



# GDP :Analysis of the indicator

The five main components of the GDP are:

- Private Consumption
- Fixed Investment
- Change in Inventories
- Government Purchases (Consumption)
- Net Exports



# GDP Accounting

■ **GDP = C + I + G + NX (+ Residual)**

Gross domestic product =

Personal consumption expenditures (C) +

Durable goods.....  
 Nondurable goods.....  
 Services.....

Gross private domestic investment (I) +

Fixed investment.....  
 Nonresidential Structures.....  
 Producers' durable equipment.....  
 Residential.....  
 Change in business inventories.....

■ Government consumption expenditures and

+

gross investment (G)

Federal.....  
 National defense.....  
 Non defense.....  
 State and local.....

Net exports of goods and services (NX)

+

**Exports**.....  
 Goods.....  
 Services.....  
**Imports**.....  
 Goods.....  
 Services.....

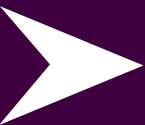
**Residual**

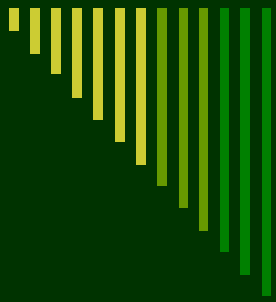






# Trends of Major Economic Indicators





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# Industry Analysis

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# Industry Analysis

- Definition
- Industry groups
- Classification on the basis of Business Cycle:
  - Growth
  - Cyclical
  - Defensive
  - Cyclical growth



# Types of Industries

- ***Growth Industries:*** High rate of earnings and growth, independent of the fluctuations of the business cycle. Expansion of this industry depend on technology change.
- ***Cyclical Industry:*** The growth and profitability of this industry move along with the business cycle.
- ***Defensive industry:*** This industry defies the movements of the business cycle.
- ***Cyclical Growth Industry:*** It is cyclical as well as growing. Changes in the technology and introduction of new models help them to resume their growth path.



# Industry Performance

- Wide dispersion in rates of return in different industries
- Performance varies from year to year
- Company performance varies within industries
- Risks vary widely across industries but are fairly stable over time within industries



# Links Between the Economy and Industry Sectors

- Economic trends are either
  - Cyclical - up and down with business cycle
  - Structural - major change
- Combined changes have implications for the industry being analyzed
- Switching from one industry group to another over the course of a business cycle is known as a rotation strategy
  - Identify and monitor key assumptions and variables



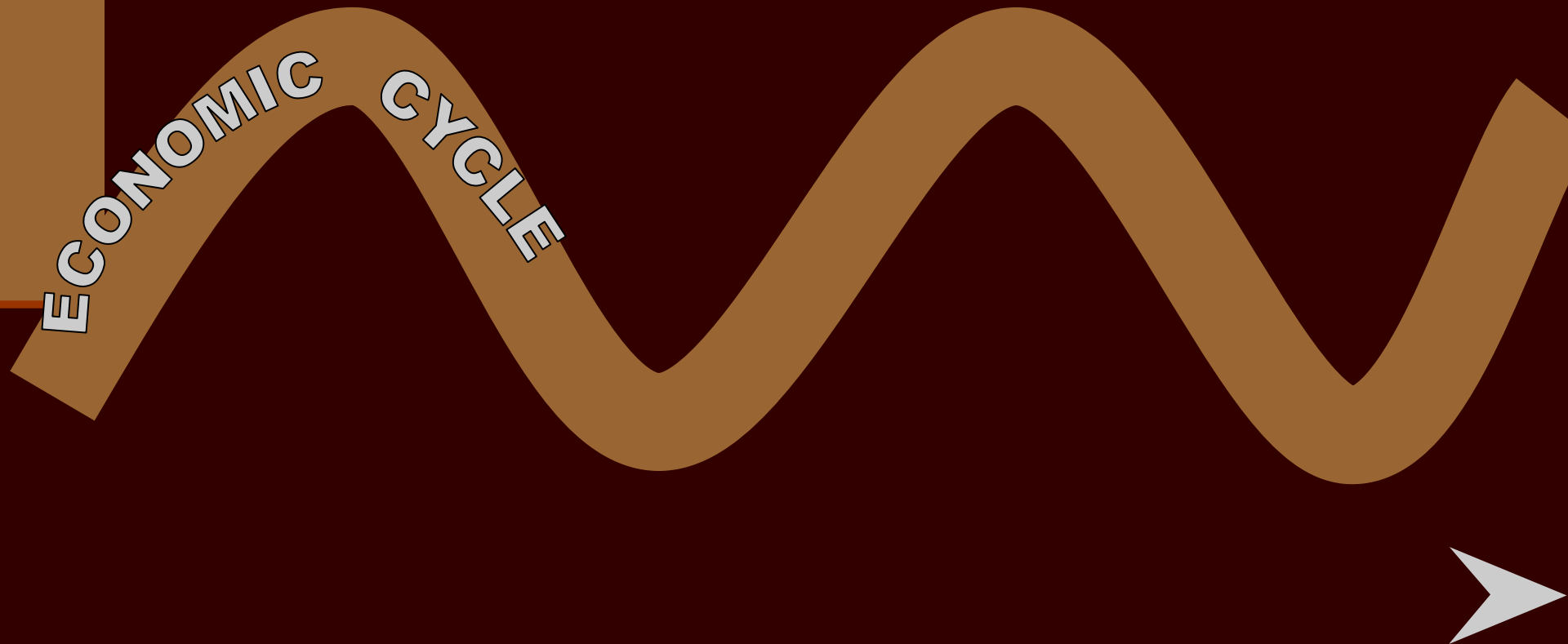
# Tools for Industry Analysis

- Industry Life Cycle
- Study of the structure and characteristics of an industry
- Profit Potential of Industries: Porter's Model
- SWOT Analysis



# The Stock Market and the Business Cycle

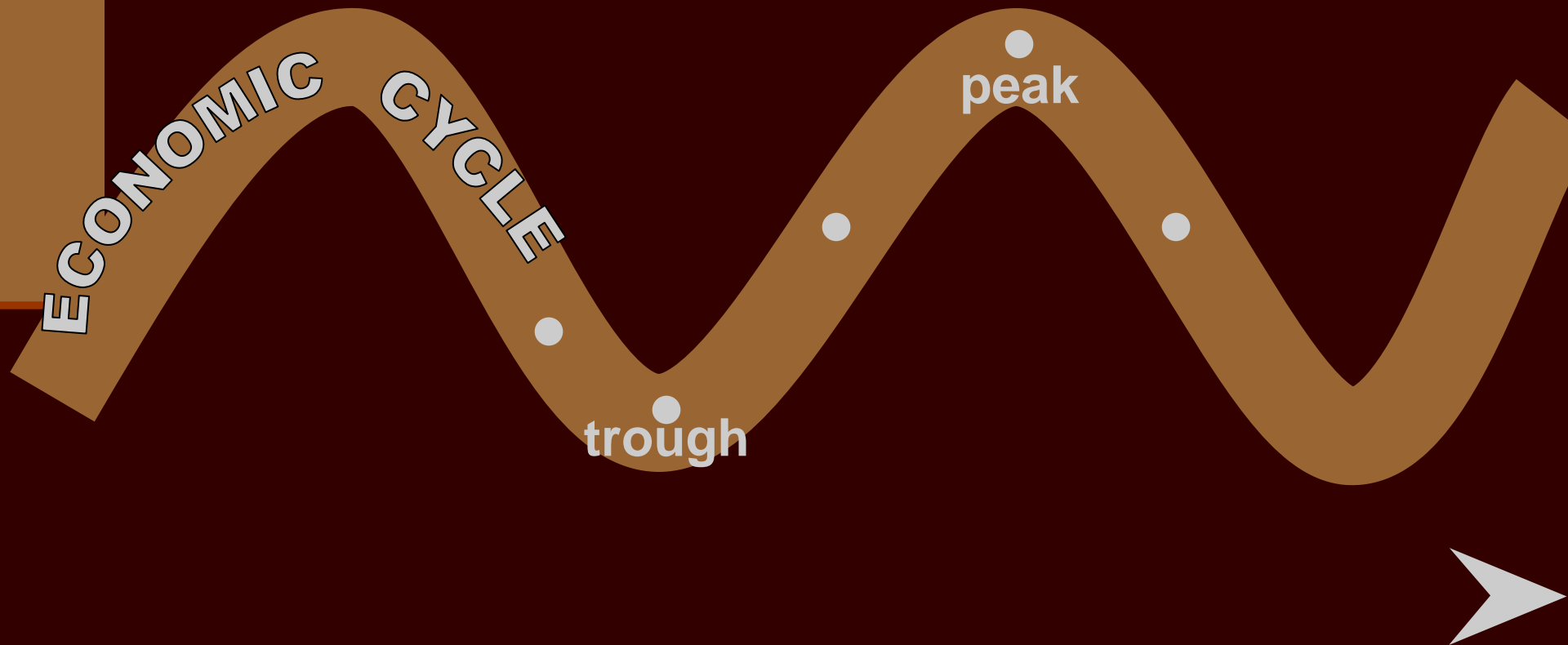
Figure 19.2





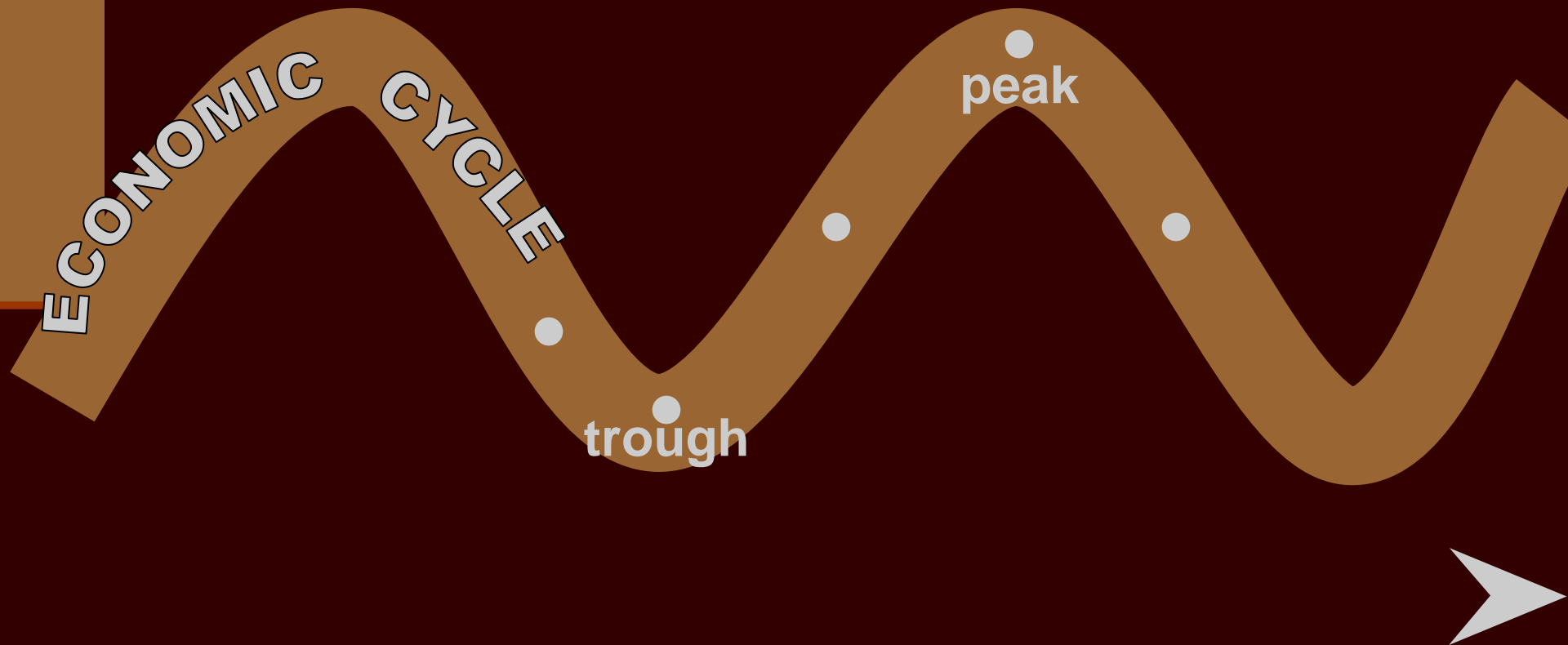
# The Stock Market and the Business Cycle

Figure 19.2



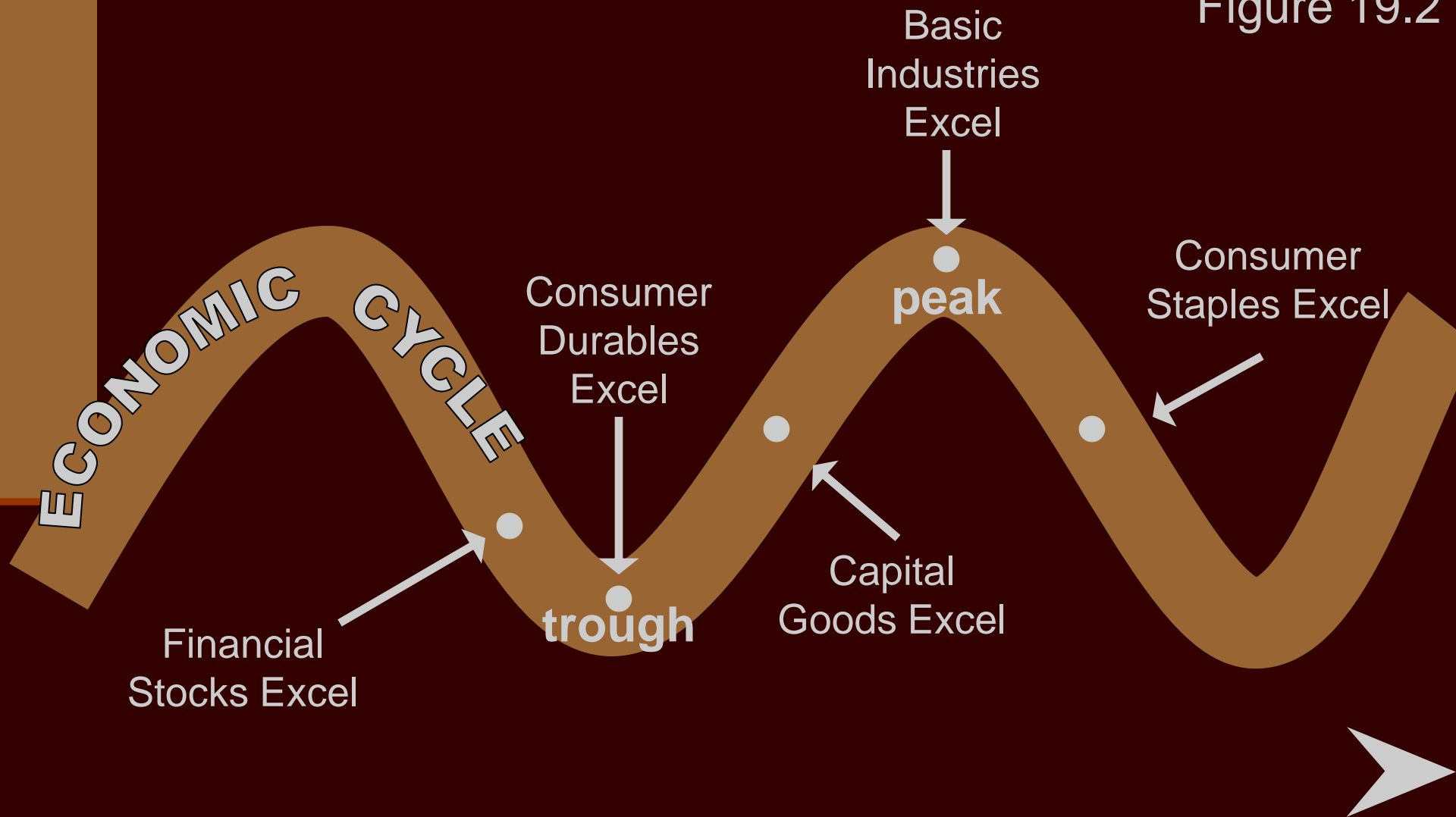
# The Stock Market and the Business Cycle

Figure 19.2



# The Stock Market and the Business Cycle

Figure 19.2



# Cyclical Economic Factors

- Inflation
- Interest rates
- International economics
- Consumer sentiment
  - All give clues about when to rotate portfolio



# Structural Economic Changes and Alternative Industries

- Social Influences
  - Demographics
  - Lifestyles
- Technology
- Politics and regulations
  - Economic reasoning
  - Fairness
  - Regulatory changes affect numerous industries
  - Regulations affect international commerce



# Industry Life Cycle

- Pioneering stage
- Rapid growth stage
- Maturity and stabilization stage
- Decline stage



# Industry Characteristics

- Structure and Nature of Competition
- Nature and Prospects of Demand
- Cost, Efficiency and Profitability
- Technology and Research



# Sales Forecasting and Industry Life Cycle

- Pioneering development
- Rapidly accelerating industry growth
- Mature industry growth
- Stabilization and market maturity
- Deceleration of growth and decline





# Sales Forecasting and Input-Output Analysis

- Identify suppliers and customers
- Future demand from customers
- Ability of suppliers to provide goods and services required
- Extended to global industries, include worldwide suppliers and customers



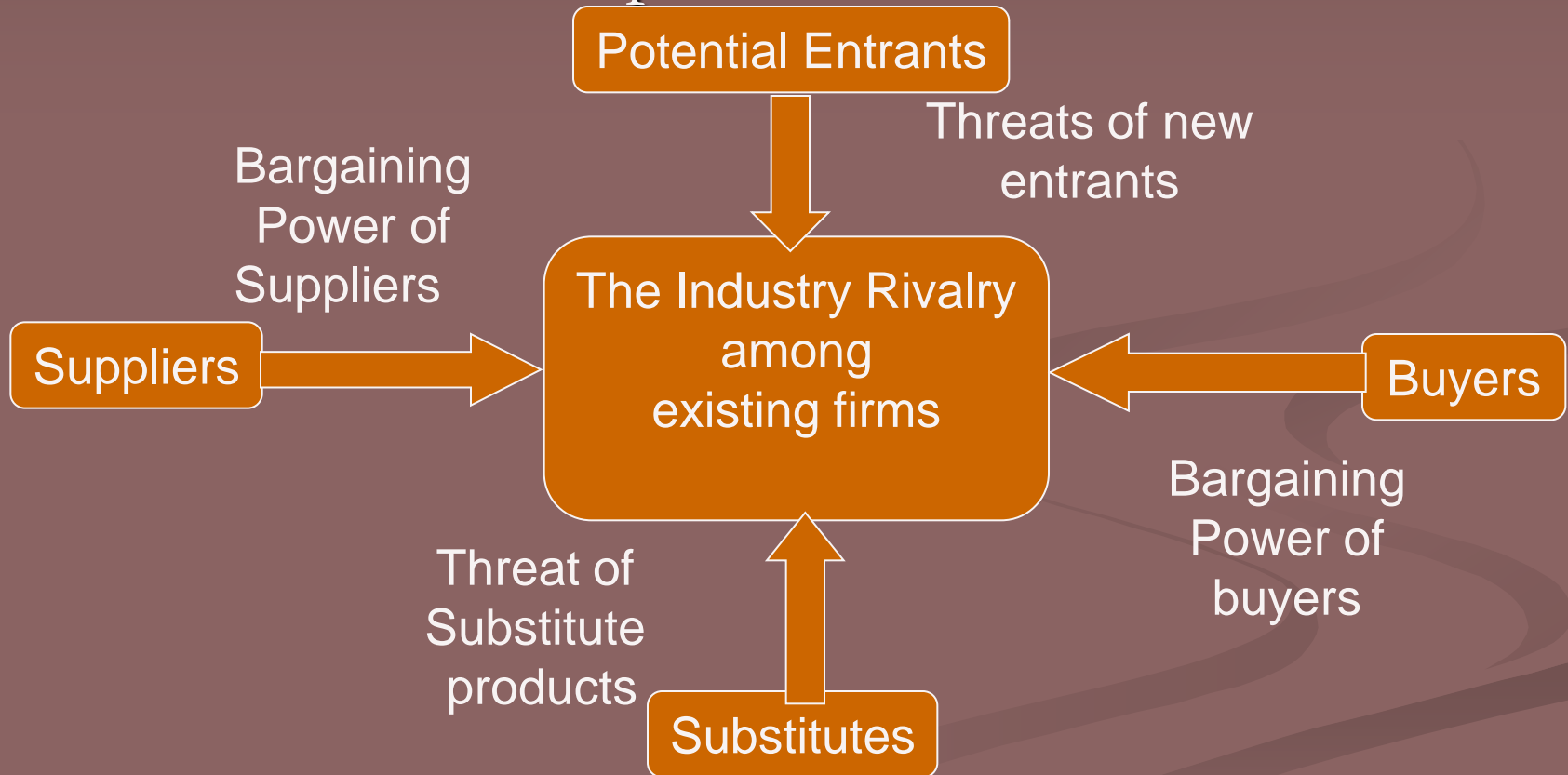
# Competitive Structure of an Industry

- Porter's Competitive Forces
  - Rivalry among existing competitors
  - Threat of new entrants
  - Threat of substitute products
  - Bargaining power of buyers
  - Bargaining power of suppliers



# Porter's Model

Five basic competitive forces:



# Firm Competitive Strategies

- Current rivalry
- Threat of new entrants
- Potential substitutes
- Bargaining power of suppliers
- Bargaining power of buyers



# Firm Competitive Strategies

- ◆ Defensive or offensive
- ◆ Defensive strategy deflects competitive forces in the industry
- ◆ Offensive competitive strategy affects competitive force in the industry to improve the firm's relative position
- ◆ Porter suggests two major strategies: low-cost leadership and differentiation



# Low-Cost Strategy

- ◆ Seeks to be the low cost leader in its industry
  - Through economies of scale (in production or marketing), better logistics, etc.
- ◆ Must still command prices near industry average, so still must differentiate
- ◆ Discounting too much erodes superior rates of return



# Differentiation Strategy

- ◆ Identify as unique in its industry in an area that is important to buyers
- ◆ Above average rate of return only comes if the price premium exceeds the extra cost of being unique



# Focusing a Strategy

- ◆ Select segments in the industry
- ◆ Tailor strategy to serve those specific groups
- ◆ Determine which strategy a firm is pursuing and its success
- ◆ Evaluate the firm's competitive strategy over time





# SWOT Analysis

- Examination of a firm's:
  - Strengths
  - Weaknesses
  - Opportunities
  - Threats



# SWOT Analysis

- Examination of a firm's:

- Strengths

- Weaknesses

- Opportunities

- Threats

INTERNAL ANALYSIS



# SWOT Analysis

- Examination of a firm's:

- Strengths

- Weaknesses

- Opportunities

- Threats

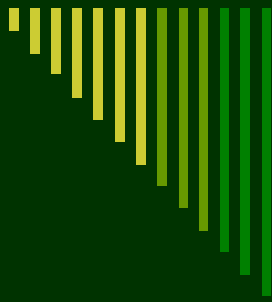
EXTERNAL ANALYSIS

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# Intra-Industry Analysis

- Directly compare two firms in the same industry
- An alternative use of T to determine a reasonable P/E ratio
- Factors to consider
  - A major difference in the risk involved
  - Inaccurate growth estimates
  - Stock with a low P/E relative to its growth rate is undervalued
  - Stock with high P/E and a low growth rate is overvalued





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# Company Analysis

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# Economic, Industry, and Structural Links to Company Analysis

- Company analysis is the final step in the top-down approach to investing
- Macroeconomic analysis identifies industries expected to offer attractive returns in the expected future environment
- Analysis of firms in selected industries concentrates on a stock's intrinsic value based on growth and risk



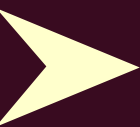
# Company Analysis and Stock Selection

- After analyzing the economy and stock markets for several countries you have decided to invest some portion of your portfolio in common stocks.
- After analyzing various industries, you have identified those industries that appear to offer above-average risk-adjusted performance over your investment horizon.
- Which are the best companies?
- Are they overpriced?



# Company Analysis and Stock Selection

- Good companies are not necessarily good investments
- Compare the intrinsic value of a stock to its market value
- Stock of a great company may be overpriced
- Stock of a growth company may not be growth stock





# Types of Companies and Stocks

- Growth
- Defensive
- Cyclical
- Speculative



# Growth Stocks

- Growth stocks are not necessarily shares in growth companies
- A growth stock has a higher rate of return than other stocks with similar risk
- Superior risk-adjusted rate of return occurs because of market undervaluation compared to other stocks



# Value versus Growth Investing

- Value stocks appear to be undervalued for reasons besides earnings growth potential
- Value stocks usually have low P/E ratio or low ratios of price to book value



# Value versus Growth Investing

## ■ Buffett's view:

- Growth is a key determinant of value for any stock, so it is always a component of determining whether or not a stock is undervalued
- Furthermore, so long as the market is under-valuing a stock, then he would categorize it as a “value” stock
- Finally, he considers all investing to be “value” investing
- Thus, he considers “value” vs. “growth” investing to be a false dichotomy
- Buffett's approach could be categorized as a GARP approach to investing



# Defensive Companies and Stocks

- Defensive companies' future earnings are more likely to withstand an economic downturn
- Low business risk
- Not excessive financial risk
- Stocks with low or negative systematic risk



# Cyclical Companies and Stocks

- Sales and earnings heavily influenced by aggregate business activity
- Stocks with high betas



# Speculative Companies and Stocks

- Assets involve great risk
  - e.g., biotechs, bankruptcies, etc.
- Can be viewed as a gamble
  - Possible great gain
  - Stock may be overpriced



# Company Analysis

## Factors affecting Present and Future Values

Competitive Edge  
Earnings  
Capital Structure  
Management  
Operating Efficiency  
Financial Performance

Historical Prices of Stock  
P/E Ratio  
Economic Condition  
Stock Market Condition

Future Price

Present Price





# Competitive Edge

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



# Earnings of the Company

- Changes in Sales
- Changes in Costs
- Depreciation Method adopted
- Depletion of Resources
- Inventory Accounting Method
- Replacement Cost of Inventories
- Wages, Salaries and Fringe benefits
- Income taxes and other taxes



# Capital Structure

- Preference Shares
- Debt
  - Earnings limit of debt
  - Asset limit of debt



# Management

- Ability to get along with people
- Leadership
- Analytical Competence
- Industry
- Judgment
- Ability to get things done



# Operating Efficiency

- Operating Leverage: It stems from the presence of Fixed Operating Costs.
- Degree of operating cost (DOL) at Q units of  
Percentage change in PBIT

$$\text{output} = \frac{\text{Percentage change in PBIT}}{\text{Percentage change in output (Q)}}$$



# Financial Analysis

## ■ Major Financial Statements

- Balance Sheet
- Profit and Loss A/C
- Fund Flow Analysis
- Cash Flow Analysis
- Common Size Statements





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# Techniques of Financial Statement Analysis

- Trend Analysis
- Ratio Analysis



# Ratio Analysis

- **Purpose:**
- To identify aspects of a business's performance to aid decision making
- Quantitative process – may need to be supplemented by qualitative factors to get a complete picture
- 5 main areas:

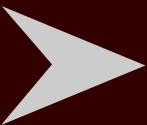




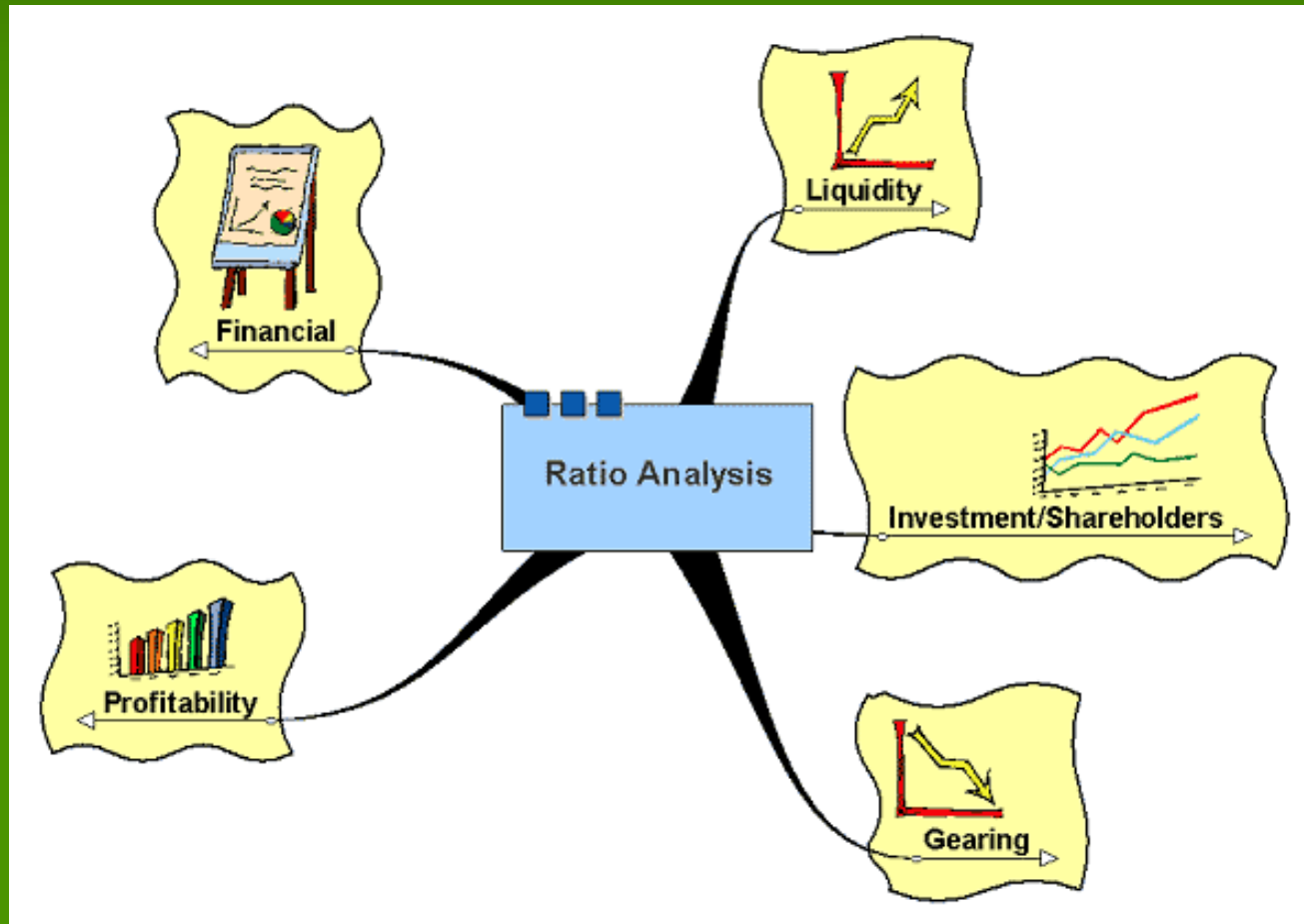
# Ratio Analysis

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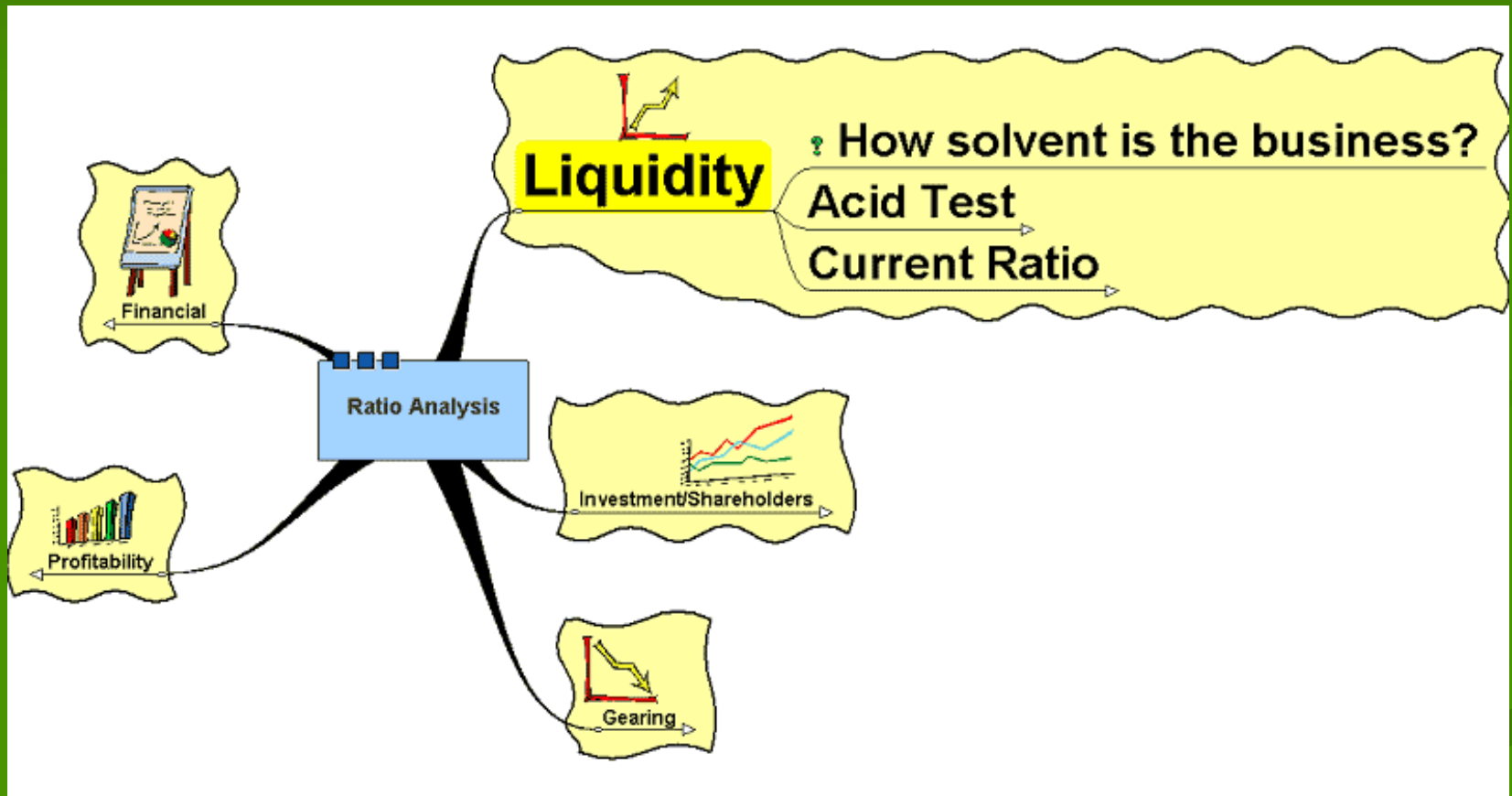
1. **Liquidity** – the ability of the firm to pay its way
2. **Investment/shareholders** – information to enable decisions to be made on the extent of the risk and the earning potential of a business investment
3. **Gearing** – information on the relationship between the exposure of the business to loans as opposed to share capital
4. **Profitability** – how effective the firm is at generating profits given sales and or its capital assets
5. **Financial** – the rate at which the company sells its stock and the efficiency with which it uses its assets



# Ratio Analysis



# Liquidity



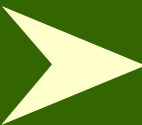
# Acid Test

- Also referred to as the 'Quick ratio'
- **(Current assets – stock) : liabilities**
- 1:1 seen as ideal
- The omission of stock gives an indication of the cash the firm has in relation to its liabilities (what it owes)
- A ratio of 3:1 therefore would suggest the firm has 3 times as much cash as it owes – very healthy!
- A ratio of 0.5:1 would suggest the firm has twice as many liabilities as it has cash to pay for those liabilities. This *might* put the firm under pressure but is not in itself the end of the world!

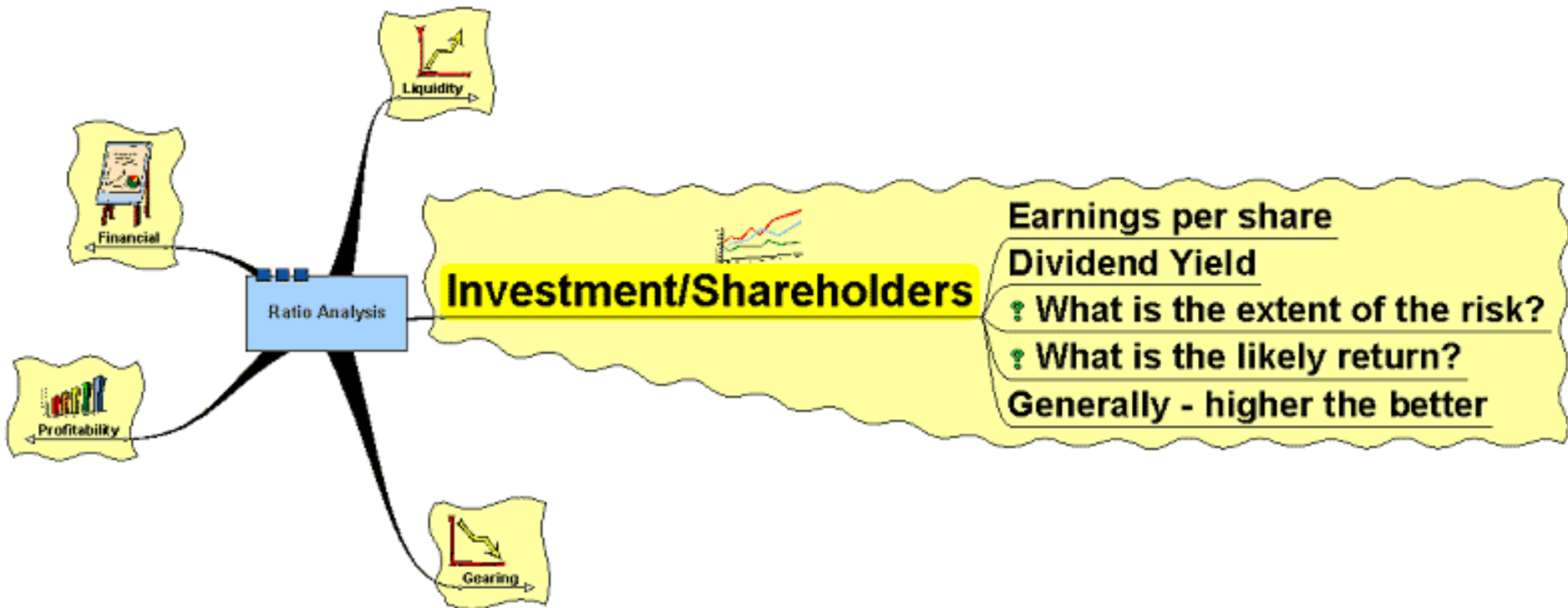


# Current Ratio

- Looks at the ratio between Current Assets and Current Liabilities
- **Current Ratio = Current Assets : Current Liabilities**
- Ideal level? – 1.5 : 1
- A ratio of 5 : 1 would imply the firm has £5 of assets to cover every £1 in liabilities
- A ratio of 0.75 : 1 would suggest the firm has only 75p in assets available to cover every £1 it owes
- Too high – Might suggest that too much of its assets are tied up in unproductive activities – too much stock, for example?
- Too low - risk of not being able to pay your way

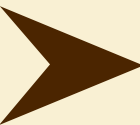


# Investment/Shareholders

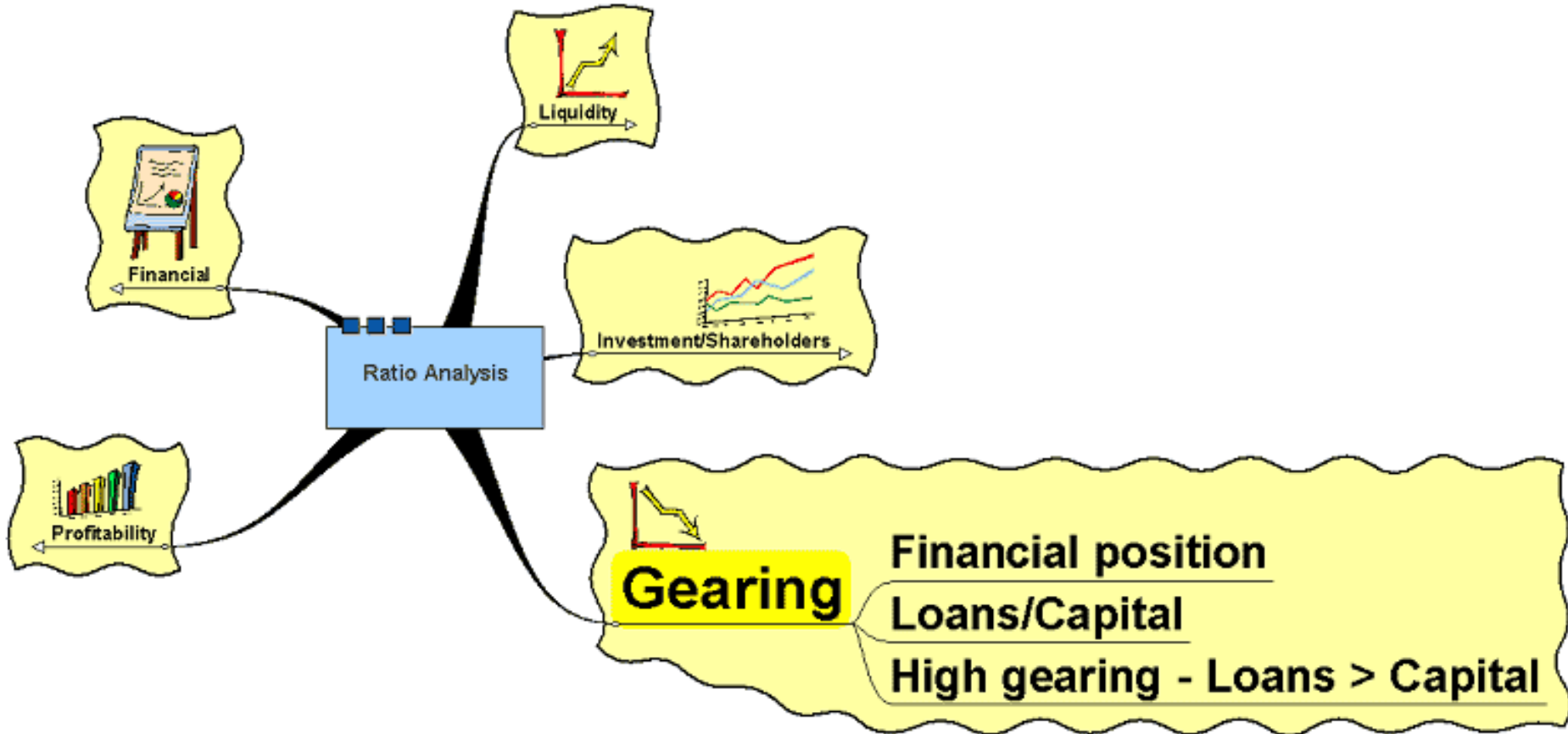


# Investment/Shareholders

- **Earnings per share** – profit after tax / number of shares
- **Price earnings ratio** – market price / earnings per share – the higher the better generally. Comparison with other firms helps to identify value placed on the market of the business.
- **Dividend yield** – ordinary share dividend / market price x 100 – higher the better. Relates the return on the investment to the share price.



# Gearing



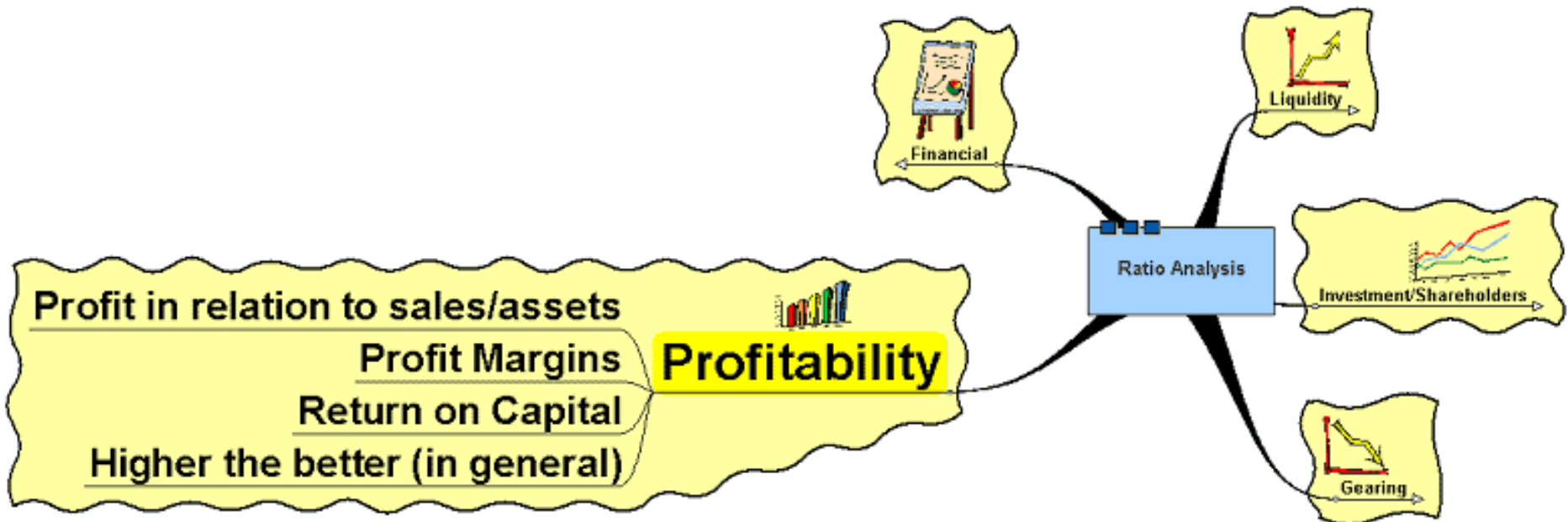


# Gearing

- **Gearing Ratio = Long term loans / Capital employed x 100**
- The higher the ratio the more the business is exposed to interest rate fluctuations and to having to pay back interest and loans before being able to re-invest earnings



# Profitability



# Profitability

- Profitability measures look at how much profit the firm generates from sales or from its capital assets
- Different measures of profit – gross and net
  - **Gross profit** – effectively total revenue (turnover) – variable costs (cost of sales)
  - **Net Profit** – effectively total revenue (turnover) – variable costs and fixed costs (overheads)



# Profitability

- **Gross Profit Margin = Gross profit / turnover x 100**
- The higher the better
- Enables the firm to assess the impact of its sales and how much it cost to generate (produce) those sales
- A gross profit margin of 45% means that for every £1 of sales, the firm makes 45p in gross profit



# Profitability

- **Net Profit Margin = Net Profit / Turnover x 100**
- Net profit takes into account the fixed costs involved in production – the overheads
- Keeping control over fixed costs is important – could be easy to overlook for example the amount of waste - paper, stationery, lighting, heating, water, etc.
  - e.g. – leaving a photocopier on overnight uses enough electricity to make 5,300 A4 copies. (1,934,500 per year)
  - 1 ream = 500 copies. 1 ream = £5.00 (on average)
  - Total cost therefore = £19,345 per year – or 1 person's salary



# Profitability

- **Return on Capital Employed (ROCE) = Profit / capital employed x 100**
- Be aware that there are different interpretations of what capital employed means – see <http://www.bized.ac.uk/compfact/ratios/ror3.htm> for more information!

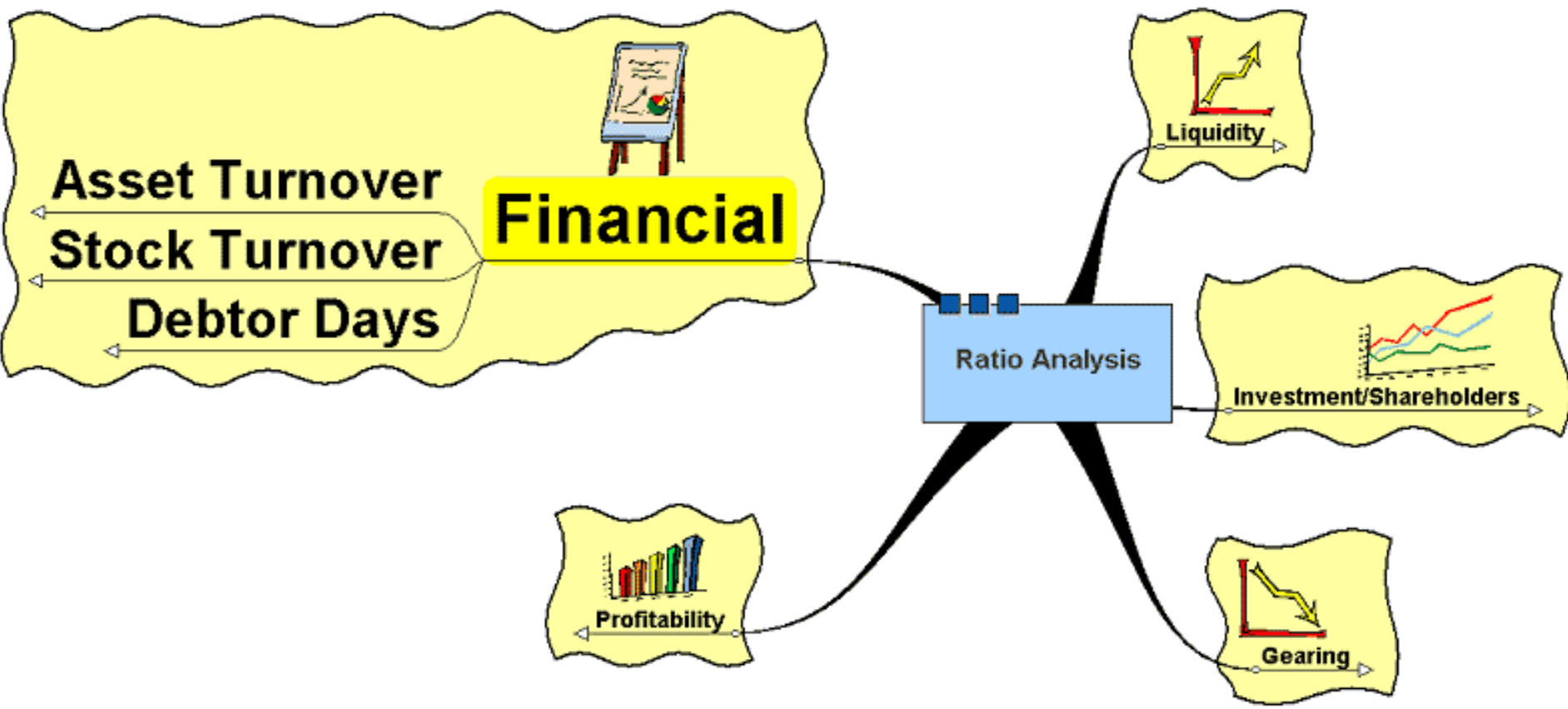


# Profitability

- The higher the better
- Shows how effective the firm is in using its capital to generate profit
- A ROCE of 25% means that it uses every £1 of capital to generate 25p in profit
- Partly a measure of efficiency in organisation and use of capital



# Financial





# Asset Turnover

- **Asset Turnover = Sales turnover / assets employed**
- Using assets to generate profit
- **Asset turnover x net profit margin = ROCE**



# Stock Turnover

- **Stock turnover = Cost of goods sold / stock expressed as times per year**
- The rate at which a company's stock is turned over
- A high stock turnover might mean increased efficiency?
  - But: dependent on the type of business – supermarkets might have high stock turnover ratios whereas a shop selling high value musical instruments might have low stock turnover ratio
  - Low stock turnover could mean poor customer satisfaction if people are not buying the goods (Marks and Spencer?)



# Debtor Days

- **Debtor Days = Debtors / sales turnover x 365**
- Shorter the better
- Gives a measure of how long it takes the business to recover debts
- Can be skewed by the degree of credit facility a firm offers



# Earnings per share (EPS) ratio & what it means!

- $EPS = \text{Net Earnings} / \text{Outstanding Shares}$

## • Three types of EPS numbers:

- Current EPS – this year's numbers, which are still projections
- Trailing EPS – last year's numbers and the only actual EPS
- Forward EPS – future numbers, which are obviously projections



# Price to earning (P/E) ratio & what it means?

- $P/E = \text{Stock Price} / \text{EPS}$

The P/E tells you what the market thinks of a stock.  
It tells you whether the market likes or dislikes the stock.



# PEG (Price to future growth ratio!) and what it tells you!

- $PEG = (P/E) / (\text{projected growth in earnings})$

A ratio that will help you look at future earnings growth is called the PEG ratio.

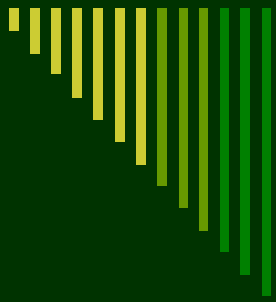
The lower the PEG number, the less you pay for each unit of future earnings growth. So even a stock with a high P/E, but high projected earning growth may be a good value.



# Forecasting Earnings Per Share

- Analysis of industry competition
- Analysis of competitive structure
- Porter's concept of competitive strategy





# Trends for Equity Markets





# Company Analysis: Qualitative Factors

- Sizing up the present situation and prospects
  - ✓ Availability and cost of inputs
  - ✓ Order position
  - ✓ Regulatory framework
  - ✓ Technological and production capabilities
  - ✓ Marketing and Distribution
  - ✓ Finance and Accounting
  - ✓ Human Resource and personal
- Evaluation of mgmt.



# Technical Analysis

- Assumptions
- History
- Technical Tools
- Dow Theory
- Primary and Secondary trend
- Minor trends
- Support and Resistance Level
- Indicators
- Odd Lot Trading
- Moving Average
- Rate of Change
- Charts
- Technical Analysis vs. Fundamental Analysis



# Technical Indicators

- Volume of Trade
- Breadth of the market
- Short Sales
- Oscillators
- Relative Strength Index

# Technical Charts

- Point and Figure Charts
- Bar Charts
- V Formation
- Tops and Bottoms
- Double top and bottom
- Head and Shoulders
- Inverted head and shoulders
- Triangles
- Symmetrical Triangle
- Ascending Triangle
- Descending Triangle
- Flags
- Pennant


# Obstacles in the way of Analyst:

- Inadequacies or Incorrectness of Data
- Future uncertainties
- Irrational market behavior





# When to Sell

- **Knowing when to sell is an even harder decision than knowing when to buy**
    - **Holding a stock too long may lead to lower returns than expected**
    - **If stocks decline right after purchase, is that a further buying opportunity or an indication of incorrect analysis?**
    - **Continuously monitor key assumptions**
    - **Evaluate closely when market value approaches estimated intrinsic value**
    - **Know why you bought it and watch for that to change**
- 

# Equity Research in India

- Lack of clarity
- Superficial analysis
- Inadequate specialization
- Emphasis on numbers
- Short-term orientation



# Portfolio Management Process

Specifications of Investment Objectives and Constraints

Choice of the Asset Mix

Formulation of Portfolio Strategy

Selection of Securities

Portfolio Execution

Portfolio Revision

Performance Evaluation





# Approaches to Portfolio Construction



- Traditional Approach
- Modern Approach

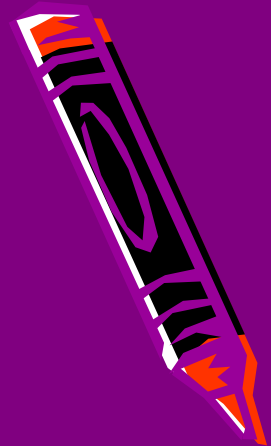
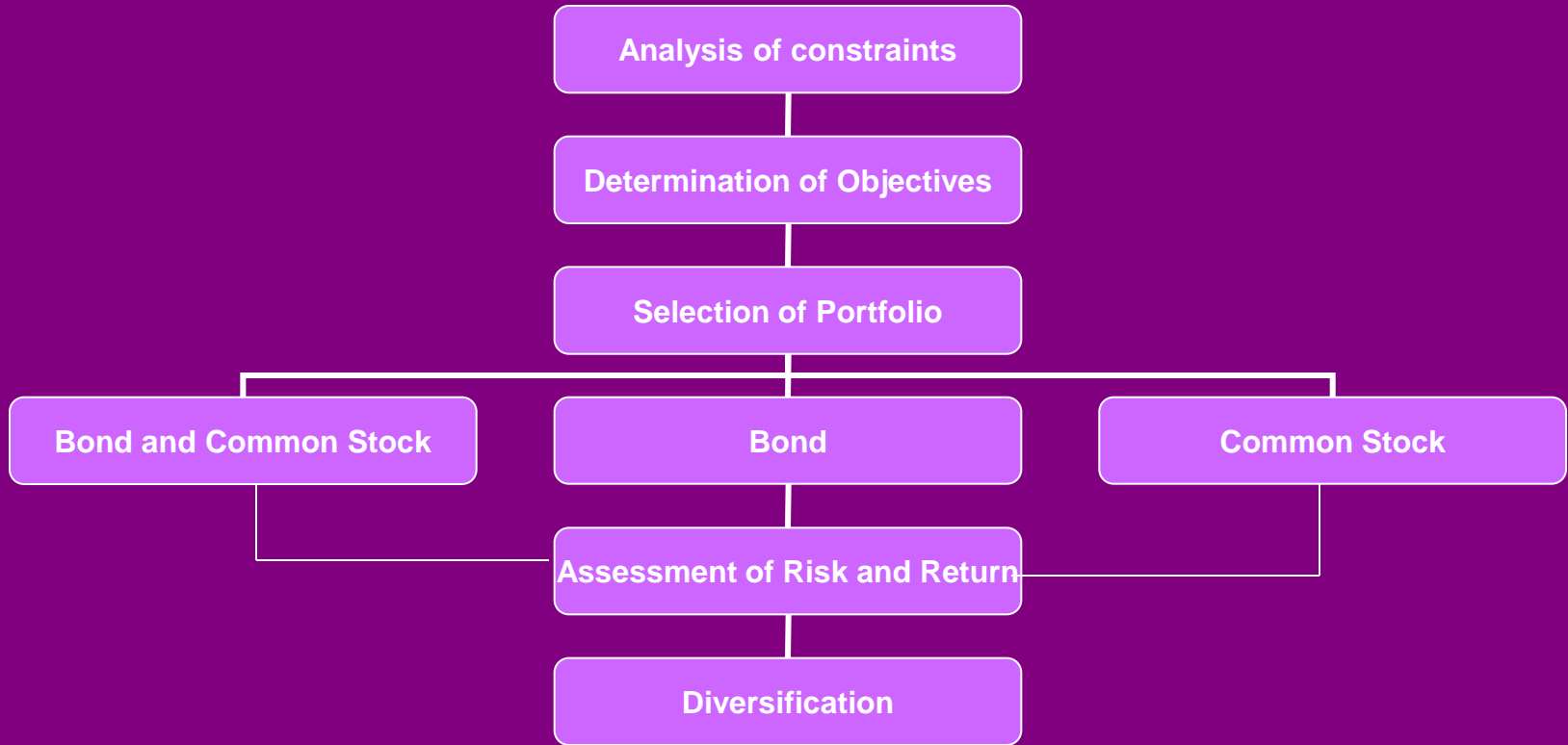


# Traditional Approach

- In this approach, investor's needs in terms of income and capital appreciation are evaluated and appropriate securities are selected to meet the needs of the investor.
- The financial plan of the investor is evaluated.



# Steps in Traditional Approach



# Modern Approach

- In this approach, Portfolios are constructed to maximize the expected return for a given level of risk.
- It views portfolio construction in terms of the expected return and the risk associated with obtaining the expected return.



# Approaches to Portfolio Management



- **Passive Approach:** The investor would maintain the percentage allocation for asset classes and keep the security holdings within its place over the established holding period.
- **Active Approach:** The investor will continuously assess the risk and return of the securities within the asset classes and change them accordingly. He would study the risks:
  - (1) Market related
  - (2) Group related
  - (3) Security specificand change the components of the portfolio to suit his objectives.



# Portfolio Construction Models

- Markowitz Model
- Sharpe's Single Index Model



# Asset Pricing Models



- Capital Asset Pricing Model (CAPM)
- Arbitrage Pricing Theory (APT)



# Portfolio Performance Evaluation



- Sharpe's Index
- Treynor's Index
- Jensen's Index





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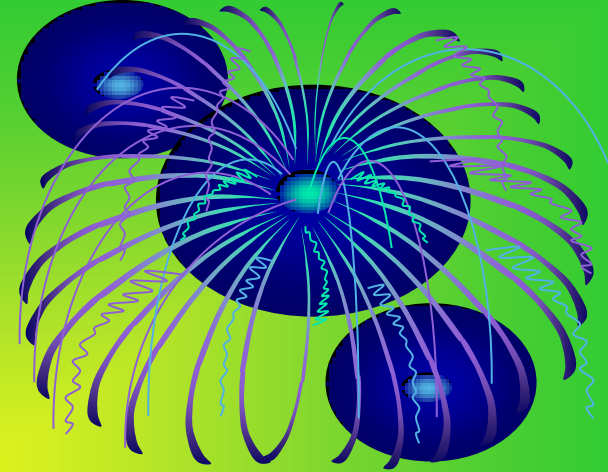
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THANK YOU

Have a Pleasant Evening



GOOD BYE

