KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act 1956)
Coimbatore – 641 021.

SYLLABUS

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17CMP205B / 17CCP205B

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

COURSE OBJECTIVE

- This course aim to provide knowledge on Stock Market operations and Functions system of Stock Exchanges.

LEARNING OUTCOME

- After studying this course, candidate will be able to understand on stock market investment, Risk and Return Analysis, Portfolio construction and Evaluation of Securities.

Unit- I

Introduction of Investment**:** Concepts of Investment – Common Forms of Investment - Types of Securities – Government Securities – Government Securities Market — India Money Market and Capital Market Institutions- Risk and Return – Systematic and Unsystematic Risk.

Unit - II

Stock Markets: Concepts **–** Bull- Bear-PE Ratio-Different Stock Market Ratio -SEBI - Structure – Functioning – NSE and BSE – Functions – Listing of Securities – New Issue Market- Mechanics of Trading in Stock Exchange – Evaluation of Securities, Equity , Preference, Debt, Hybrid Securities, - OTCEI .

Unit - III

Fundamental Analysis **-** Economic analysis and Industry analysis**:** Asset Pricing Theories (APT)s s- Option Pricing Theory – Economic Analysis –Economic Forecasting – Stock Investment Decision - Techniques Company Analysis – Industry Analysis

Unit - IV

Technical Analysis–Charting Methods – Market Indicators – Trend Analysis - Trend Reversal – Patterns Moving Average – Exponential Moving Average – Oscillators –RSI - Fundamental Analysis Vs. Technical Analysis.

Unit - V

Portfolio Analysis: Methods of Portfolio Construction – Selection of Portfolio Management- Practical Aspects – Performance Evaluation - Portfolio Revision – Problems.

Note: This Paper consisting of 80% Theory and 20% Problem.

SUGGESTED READINGS

Text Book

1. Preeti Singh. (2015). *Investment Management*. New Delhi: Himalaya Publication

Reference Books

1. Avadani (2014). *Investment Management*. New Delhi: Himalaya Publication
2. Jack Clark Francis (2012).*Investment Analysis and Management*. Singapore: Mc Grew Hill International Edition.
3. Dr.I.Natarajan.(2017).*Securities Law &Market operations.* Chennai. Margham Publication.

Web Site

1.http : www.sebi.Com

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LECTURE PLAN
DEPARTMENT OF COMMERCE

STAFF NAME : Dr.K.Kumuthadevi
SUBJECT : Security Analysis and Portfolio Management
SUBJECT CODE : 17CMP205A/17CCP205A SEMESTER: II
CLASS : I M.Com/I M.Com (CA)

UNIT-I

Sl No.	Lecture Duration (Hour)	Topics to be Covered	Support Materials
1	1	Introduction of Investment	T:P.1, R1.P.17-18
2	1	Concepts of Investment	T:P.1, R1.P. 17-18
3	1	Common form of Investment	T:P.1, R1.P.17-18
4	1	Types of Securities	T:P.3
5	1	Government Securities	T:P.5
6	1	Government Securities Market	T:P.7
7	1	India Money Market	R1:P.19
8	1	Capital Market Institutions	T:P.10
9	1	Risk and Return – Introduction & Definition	T:P.12
10	1	Systematic Risk	T:P.12
11	1	Unsystematic Risk	R1:P.28-40
12	1	Recapitulation and Important Questions Discussion	
Total No .of Hours			**12 Hours**
UNIT –II			
1	1	Stock Market - Introduction	R1:P.98, W4
2	1	Stock Market - Concepts	R1:P.74
3	1	Bull and Bear	R1:P.174
4	1	PE Ratio	R1:P.165
5	1	Different Stock Market Ratio	T:P.76
6	1	SEBI- Introduction, Structure and Functioning	W2 &:P.76, R1:P.101
7	1	BSE & NSE - Functions	T:P.94& R1:P.60, R1:P.102

8	1	Listing of securities	R1:P.60, R1:P.102
9	1	New Issue Market & Mechanics of Trading in Stock Exchange	W3, R1:P.265& R1:P.255
10	1	Evaluation of Securities, Equity, Preference, Debt and Hybrid Securities	T.P.283, 303, R1:P.104 R1:P.P320
11	1	OTCEI	R2:6,1-6.17
12	1	Recapitulation and Discussion of important questions	
Total No .of Hours			**12 Hours**
UNIT –III			
1	1	Fundamental Analysis - Introduction	R1:P.384
2	1	Economic Analysis	T:P.282
3	1	Economic Forecasting ➢ Forecasting Techniques- Surveys, Indicators	T:P.284 T:P.285
4	1	Forecasting Techniques ➢ Diffusion Indexes ➢ Economic Model Building ➢ Opportunistic Model Building	T:P.285 T:P.286
5	1	Industry Analysis ➢ Concept of Industry	T:P.287
6	1	Stages of Industry Analysis	T:P.288
7	1	Asset Pricing Techniques & Option Pricing Theory	W4& W5
8	1	Stock Investment Decision	
9	1	Techniques Company Analysis	R1:P.390
10	1	Industry analysis and structure	W5
11	1	Industry analysis as a tool to develop competitive strategy	W5
12	1	Stages of Industry Life Cycle	W5& W6
		Recapitulation and Discussion of important questions	
Total No .of Hours			**13 Hours**
UNIT –IV			
1	1	Company Analysis	T:P.292
2	1	Measuring earnings& Forecasting earnings	T:P.317
3	1	Technical Analysis ➢ Meaning ➢ Scope	R1:P.422
4	1	Dow Theory& Charting Methods	R1.P:424& R1.P:431,
5	1	Construction of Charts& Market Indicators	T:P.349& W7
6	1	Categories of market indicators	W8
7	1	Trends, The importance of Trends& Moving Average	R1:P.428 R1.P:429, T:P.355
8	1	Types of Moving Average - Simple Moving Average	R1.P:429,

		(SMA)	T:P.355
9	1	**Exponential Moving Average (EMA)**	T.P:429-431
10	1	Fundamental analysis Vs Technical Analysis	W9
11	1	Recapitulation and Discussion of important questions	
Total No .of Hours			**11 Hours**
UNIT –V			
1	1	Portfolio Analysis ➢ Traditional vs Modern Portfolio Analysis	T:P.369, R4:P.459
2	1	Markowitz Theory - Assumptions of Markowiotz Theory	T:P.374 T:P.374
3	1	Efficient Frontier Portfolio Selection	R1:P.442, R4:P.507
4	1	Sharpe's Portfolio model, Baurnols model	T:P.308
5	1	Optimum Portfolio & Capital Asset Pricing Model CML, SML	T:P.402 T:P. 419
6	1	The arbitrage pricing theory& Risk and return analysis	R4:P.619 R4.440
7	1	Performance Evaluation Sharpe Trends	T:P. 452 T:P. 456
8	1	Treynor,& Jensons performance index&– Need Techniques	T:P.434
9	1	Recapitulation and Important Question Discussion	
10	1	Discussion on Previous ESE Question Paper	
11	1	Discussion on Previous ESE Question Paper	
12	1	Discussion on Previous ESE Question Paper	
Total No .of Hours			**12 Hours**
Total Planned Hours			**60 Hours**

Text Book

1. Preeti Singh. (2015). *Investment Management*. New Delhi: Himalaya Publication

Reference Books

1. Avadani (2014). *Investment Management*. New Delhi: Himalaya Publication
2. Jack Clark Francis (2012).*Investment Analysis and Management*. Singapore: Mc Grew Hill International Edition.
3. Dr.I.Natarajan.(2017).*Securities Law &Market operations.* Chennai. Margham Publication.

Web Site

1.http : www.sebi.Com

UNIT-I

SYLLABUS

Introduction of Investment**:** Concepts of Investment – Common Forms of Investment - Types of Securities – Government Securities – Government Securities Market — India Money Market and Capital Market Institutions- Risk and Return – Systematic and Unsystematic Risk.

MEANING OF INVESTMENT

Investment is the allocation of monitory resources to assets that are expected to yield some gain or positive return over a given period of time. These assets range from safe Investments to risky Investment. Investments in this form are also called 'Financial Investment'.

Investment is time, energy, or matter spent in the hope of future benefits actualized within a specified date or time frame. Investment has different meanings in economics and finance.

In economics, investment is the accumulation of newly produced physical entities, such as factories, machinery, houses, and goods inventories.

MEANING OF INVESTMENT MANAGEMENT

Investment management is the professional asset management of various securities (shares, bonds and other securities) and other assets (e.g., real estate) in order to meet specified investment goals for the benefit of the investors.

A generic term that most commonly refers to the buying and selling of investments within a portfolio. Investment management can also include banking and budgeting duties, as well as taxes. But the term most often refers to portfolio management and the trading of securities to achieve a specific investment objective

OBJECTIVES OF INVESTMENT

- Maximizing of current income
- Capital preservation
- Total returns and liquidity
- Tax advantage
- Aggressive capital growth

Preservation of Capital

Wealthy clients and those in the spending and gifting phases are most interested in preservation of capital. This is the most conservative investment strategy, and it is intended solely to avoid risk of loss. Less risk, of course, means less return. Low-yielding bonds and money market funds are the foundation of a capital preservation strategy.

Current Income

Conversely, current income is the strategy focused on getting returns on investment as quickly as possible. High-interest bonds and high-dividend stocks are its mainstays.

Current Growth

The current growth strategy is intended for investors with time to "get in on the ground floor" of the "next big thing". As risky as that sounds, it is not a bad strategy for someone who understands the potential downside.

Investing in any one growth stock is adventurous, but the idea is to collect an array of these emerging stocks - generally shares of small companies in new businesses - in a portfolio. The expectation is that a couple of these investments will turn out to be blockbusters, which will more than offset the ones that crash and burn. A growth stock generally does not offer a dividend, and the entire payoff with this strategy is in selling it years from now for many multiples of what you paid for it today.

Total Return

Total return investing factors in both capital appreciation - how fast the share price grows - and dividend yield. It also considers the tax implications for the individual investor: a tax-free return of 5% is as good as a taxable dividend of 7% to someone in the 40% bracket. Total return is sometimes called growth-with-income.

Just as clients do not necessarily fit into convenient investment phases, they tend not to have just one objective. Your goal should be to blend all their objectives proportionately into their individual portfolios..

CHARACTERISTICS OF INVESTMENT

The characteristics of investment can be understood in terms of as

- Return
- Risk
- Safety
- Liquidity

Return

All investments are characterized by the expectation of a return. In fact, investments are made with the primary objective of deriving return. The expectation of a return may be from income (yield) as well as through capital appreciation. Capital appreciation is the difference between the sale price and the purchase price. The expectation of return from an investment depends upon the nature of investment, maturity period, market demand and so on.

Risk

Risk is inherent in any investment. Risk may relate to loss of capital, delay in repayment of capital, non-payment of return or variability of returns. The risk of an investment is determined by the investments, maturity period, repayment capacity, nature of return commitment and so on. Risk and expected return of an investment are related. Theoretically, the higher the risk, higher is the expected returned. The higher return is a compensation expected by investors for their willingness to bear the higher risk.

Safety

The safety of investment is identified with the certainty of return of capital without loss of time or money. Safety is another feature that an investor desires from investments. Every investor expects to get back the initial capital on maturity without loss and without delay.

Liquidity

An investment that is easily saleable without loss of money or time is said to be liquid. A well developed secondary market for security increases the liquidity of the investment. An investor tends to prefer maximization of expected return, minimization of risk, safety of funds and liquidity of investment.

SCOPE OF INVESTMENT

The business of investment has several facets, the employment of professional fund managers, research (of individual assets and asset classes), dealing, settlement, marketing, internal auditing, and the preparation of reports for clients. The largest financial fund managers are firms that exhibit all the complexity their size demands. Apart from the people who bring in the money (marketers) and the people who direct investment (the fund managers), there are compliance staff (to ensure accord with legislative and regulatory constraints), internal auditors of various kinds (to examine internal systems and controls), financial controllers (to account for the institutions' own money and costs), computer experts, and "back office" employees (to track and record transactions and fund valuations for up to thousands of clients per institution).

INVESTMENT VS SPECULATION

Investment is distinguished from three ways, they are

- Risk
- Capital Gain
- Time Period

Risk

The term risk refers to the possibility of incurring a loss in a financial transaction.

In a broad sense, investment is considered to involve limited risk and is confined to those avenues where the principal is safe. 'Speculation' is considered as an involvement of funds of high risk.

Capital Gain

Another distinction between investment and speculation emphasizes that if the motive is primarily to achieve profits through price changes, it is speculation. If purchases of securities are preceded by proper investigation and analysis and review to receive a stable return over a period of time, it is termed as investment.

Time

A longer fund allocation is termed as investment. A short – term holding is associated with trading for the "quick turn" and is called as Speculation.

INVESTMENT VS GAMBLING

The investment is an attempt to carefully plan, evaluate allocate funds in various investable outlets which offer safely of principal, moderate and continues return and long – term commitment. Gambling connotes high risk and expectation of high returns. It consists of uncertainty and high stakers of thrill and excitements.

Example

- Risk management tactics differ
- Gambling is time-bound
- In stock investing, you can limit your losses
- Indicators are different
- In stock investing, helpful information is readily available
- In gambling, you are safe until you place a bet
- Stock investing makes you an entrepreneur
- Stock investing has economic benefits
- In stock investing, more is usually better
- Gambling is pure chance or luck

IMPORTANCE OF INVESTMENT

Investments are both important and useful in the context of present day conditions, in that we have some importance,

- Longer life expectancy or planning for retirement
- Increasing rates of taxes
- High interest rates
- High rate of inflation

- Larger incomes
- Availability of a complex number of investment outlets.

PROCESS OF INVESTMENT

- Investment Goal
- Investment policy
- Construction of Portfolio
- Diversification
- Selection
- Allocation
- Portfolio Evaluation

Investment Goal

The first step for an investor is to set an investment goal. This goal differs for every individual investor.

Investment Policy

After setting the investment goal, the next step is to create an investment policy. This starts with asset allotment between the key asset categories present in the capital market ranging from equities, fixed income securities, property, currency and the like. An investment management consultant keeps into consideration various parameters during the process of instituting the investment policy for the investor. These parameters include constraints of the environment such as the governmental rules, laws, etc. Moreover, the parameters also include the constraints of the investor such as monetary ability, time constraints, risk profile, etc.

Construction of Portfolio

The next step that an investment management consultant follows is the selection of the portfolio strategy. This is done in compliance with the investment goals and investment policy guiding principles. This step is equally crucial as the aforementioned ones. Hence it is pertinent to seek the guidance of an expert investment management consultant if you are unsure about the entire investment management process because any inconsistency here would make the things and cause the entire process to go kaput and lead you in the direction of losses. Portfolio strategies are primarily categorized into two forms; viz. active and passive. Active strategies provide more prospects regarding the features that are projected to control the asset categories' performance, whereas passive strategies involve fewer prospects.

Selection

The next step in line is the process of selecting the assets. The selection and inclusion of specific assets in the portfolio is extremely important. It is here that the investment management consultant advises the investor about building a well organized portfolio, one that would give the anticipated ROI.

Portfolio Evaluation

The next step is the measurement and evaluation of the performance. This is done in absolute and relative terms, against a preset, practical and attainable yardstick. Additionally, the portfolio performance is assessed in the context of the goal and various performance considerations.

FACTORS AFFECTING INVESTMENT

(1) Element of Uncertainty

According to Keynes, the MEC is more volatile than the rate of interest. This is because the prospective yield of capital assets depends upon the business expectations. These business expectations are very uncertain. "They may change quickly and drastically in response to the general mood of the business community, rumours, news of technical developments, political events, even directors' ulcers may cause a sudden rise or fall of the expected rate of yield."

(2) Existing Stock of Capital Goods

If the existing stock of capital goods is large, it would discourage potential investors from entering into the making of goods. Again, the induced investment will not take place if there is excess or idle capacity in the existing stock of capital assets.

In case the existing stock of machines is working to its full capacity, an increase in the demand for goods manufac-tured by them will raise the demand for capital goods of this type and raise the inducement to invest. But it is the capital stock which influences the MEC. The MEC and the capital stock are inversely related.

(3) Level of Income

If the level of income rises in the economy through rise in money wage rates and other factor prices, the demand for goods will rise which will, in turn, raise the inducement to invest. Contrariwise, the inducement to investment will fall with the lowering of income levels.

(4) Consumer Demand

The present and future demand for the products greatly influences the level of investment in the economy. If the current demand for consumer goods is increasing rapidly more investment will be made. Even if we take the future demand for the products, it will be consider-ably influenced by

their current demand and both will influence the level of investment. Investment will be low if the demand is low, and vice versa.

(5) Liquid Assets

The amount of liquid assets with the investors also influences the inducement to invest. If they possess large liquid assets, the inducement to invest is high. This is especially the case with those firms which keep large reserve funds and undistributed profits. On the contrary, the induce-ment to invest is low for investors having little liquid assets.

(6) Inventions and Innovations

Inventions and innovations tend to raise the inducement to invest. If inventions and technological improvements lead to more efficient methods of production which reduce costs, the MEC of new capital assets will rise. Higher MEC will induce firms to make larger investments in the new capital assets and in related ones.

The absence of new technologies will mean low inducement to invest. An innovation also includes the opening of new areas. This requires the development of means of transport, the construction of houses, etc., leading to new investment oppor-tunities. Thus inducement to invest rises.

(7) New Products

The nature of new products in terms of sales and costs may also influence their MEC and hence investment. If the sale prospects of a new product are high and the expected revenues more than the costs, the MEC will be high which will encourage investment in this and related industries.

FEATURES OF INVESTMENT PROGRAMME

1. Safety of Principal

The investor, to be certain of the safety of principal, should carefully review the economic and industry trends before choosing the types of investment. Errors are avoidable and, therefore, to ensure safety of principal, the investor should consider diversification of assets.

Adequate diversification involves mixing investment commitments by industry, geographically, by management, by financial type and by maturities. A proper combination of these factors would reduce losses. Diversification to a great extent helps in proper investment programmes but it must be reasonably accomplished and should not be carried out to extremes.

2. Liquidity

Even investor requires a minimum liquidity in his investments to meet emergencies. Liquidity will be ensured if the investor buys a proportion of readily saleable securities out of his

total portfolio. He may, therefore, keep a small proportion of cash, fixed deposits and units which can be immediately made liquid investments like stocks and property or real estate cannot ensure immediate liquidity.

3. Income Stability

Regularity of income at a consistent rate is necessary in any investment pattern. Not only stability, it is also important to see that income is adequate after taxes. It is possible to find out some good securities which pay practically all their earnings in dividends.

4. Appreciation and Purchasing Power Stability

Investors should balance their portfolios to fight against any purchasing power instability. Investors should judge price level inflation, explore the possibility of gain and loss in the investments available to them, limitations of personal and family considerations.

The investors should also try and forecast which securities will possibly appreciate. A purchase of property at the right time will lead to appreciation in time. Growth stock will also appreciate over time. These, however, should be done thoughtfully and not in a manner of speculation or gamble.

5. Legality and Freedom from Care

All investments should be approved by law. Law relating to minors, estates, trusts, shares and insurance be studied. Illegal securities will bring out many problems for the investor. One way of being free from care is to invest in securities like Unit Trust of India, Life Insurance Corporation or Savings Certificates.

The management of securities is then left to the care of the Trust who diversifies the investments according to safety, stability and liquidity with the consideration of their investment policy. The identity of legal securities and investments in such securities will also help the investor in avoiding many problems.

6. Tangibility

Intangible securities have many times lost their value due to price level inflation, confiscatory laws or social collapse. Some investors prefer to keep a part of their wealth invested in tangible properties like building, machinery and land. It may, however, be considered that tangible property does not yield an income apart from the direct satisfaction of possession or property.

INVESTMENT MEDIA

Many types of investment media or channels for making investments are available. A sound investment programme can be constructed if the investor familiarises himself with the various

alternative investments available.Investment media are of several kinds. Some media are simple and direct, others present complex problems of analysis and investigation.

1. Direct Investment Alternatives

a) Fixed Principal Investments

- Cash
- Savings account
- Savings certificates
- Government Bonds
- Corporate Bonds and debentures

b) Variable Principal Securities

- Equity shares
- Convertible debentures or preference shares

c) Non security Investments

- Real estate
- Mortgages
- Commodities
- Business ventures
- Art, Antiques and other variables

2. Indirect Investment Alternatives

- Pension fund
- Provident fund
- Insurance
- Investment companies
- Unit trust and other trust funds

INVESTMENT ALTERNATIVES

Non marketable financial assets

These are such financial assets which gives moderately high return but cannot be traded in market.

- Bank Deposits
- Post Office Schemes
- Company FDs

- PPF

Equity shares

These are shares of company and can be traded in secondary market. Investors get benefit by change in price of share and dividend given by companies. Equity shares represent ownership capital. As an equity shareholder, a person has an ownership stake in the company. This essentially means that the person has a residual interest in income and wealth of the company. These can be classified into following broad categories as per stock market:

- Blue chip shares
- Growth shares
- Income shares
- Cyclic shares
- Speculative shares

Bonds

Bonds are the instruments that are considered as a relatively safer investment avenues.

- G sec bonds
- GOI relief funds
- Govt. agency funds
- PSU Bonds
- RBI BOND
- Debenture of private sector company

Money market instrument

By convention, the term "money market" refers to the market for short-term requirement and deployment of funds. Money market instruments are those instruments, which have a maturity period of less than one year.

- T-Bills
- Certificate of Deposit
- Commercial Paper

Mutual Funds

A mutual fund is a trust that pools together the savings of a number of investors who share a common financial goal. The fund manager invests this pool of money in securities, ranging from shares, debentures to money market instruments or in a mixture of equity and debt, depending upon the objective of the scheme. The different types of schemes are

- Balanced Funds

- Index Funds
- Sector Fund
- Equity Oriented Funds

Life insurance

Now-a-days life insurance is also being considered as an investment avenue. Insurance premiums represent the sacrifice and the assured sum the benefit. Under it different schemes are:

- Endowment assurance policy
- Money back policy
- Whole life policy
- Term assurance policy

Real estate

One of the most important assets in portfolio of investors is a residential house. In addition to a residential house, the more affluent investors are likely to be interested in the following types of real estate:

- Agricultural land
- Semi urban land
- Farm House

Precious objects

Investors can also invest in the objects which have value. These comprises of:

- Gold
- Silver
- Precious stones
- Art objects

Financial Derivatives

These are such instruments which derive their value from some other underlying assets. It may be viewed as a side bet on the asset. The most important financial derivatives from the point of view of investors are:

- Options
- Futures

Government Securities (Bonds)

Bonds issued by Central or State government. These bonds are termed as the safest investment instruments in India. Example of these bonds are "Dated government security" which

are issued for a period of 10 years with a fixed coupon payment. These securities carry least amount of credit risk as they are backed by the Government of India.

Equity

Investing in direct equity. One can start investing in Indian equities by participating in primary markets (applying for IPO's) and also by purchasing securities from secondary markets (stock exchanges).Investing in direct equity is termed risky and one needs to diversify the risk by investing in multiple securities from various sectors. Example: investing in real estate stocks, pharma stocks, PSU stocks and Oil stocks all at once.

Mutual Funds

Mutual fund is a financial instrument created with pool of investments from many investors. Mutual funds are professionally managed and they invest in equity, debt, gold, foreign equity, etc. on your behalf. Mutual funds are one of the best way to diversify your portfolio.

Debentures/ Bonds

Corporate's need money and they don't go to banks every time to fulfill their needs, they have two options to raise money – come up with an IPO or issue bond with fixed term to maturity and fixed coupon payments. They function just like the government bonds and the only difference is that they are a bit riskier compared to government bonds.

Returns offered by these bonds are higher compared to government bonds.

Real Estate

In India investing in real estate is considered as the best form of investment but only after gold. Historically real estate has performed well in India.

Gold

The only form of investment which most of our mothers and fathers would believe in. Gold is considered as the best investment in India, that is the only reason why India is the highest consumer of gold in the world.

Most of the people in India buy physical gold. ETF's, Mutual funds, etc. are yet to pick up as an investment avenues in India.

Bank fixed deposits

This considered as one of the traditional ways of Investing. Most of the people in India with a bank account will have at least one fixed deposit. FD's offer a fixed return at the end of specified period.

Corporate Fixed Deposits

They are just like bank FD's they only difference is that they are issued by corporations. They are a bit riskier compared to bank FD's as most of these corporate deposits are unsecured an hence offer higher interest rate.

Post office savings schemes

These saving schemes by post offices are trusted by many Indians. The scheme attracts decent returns. One can start investing with as low as Rs 100 per month. Check out the details here.

National Pension Scheme

The National Pension System (NPS) is a defined contribution based pension system launched by Government of India. This instrument is used for retirement planning by many. One can find more details here.

Commodity

This is one of the latest passion for investors, trading in MCX to offset the risk of their equity portfolio. Many headers and arbitrageurs use this financial instrument.

Investing in Art

Art as a form of investment is quite common in developed nations and the trend is picking up in India. Many affluent Indians buy art preserve it and diversify their portfolios.

Venture Capital/ Angle Investing

Investing in someones business idea at an early stage of the venture. You get equity for the amount invested and one can exit the investment when the business is acquired by some other company or when the company gets listed. These investments are highly il-liquid and carry huge risk.

TYPES OF RISK

Systematic Risk

Systematic risk influences a large number of assets. A significant political event, for example, could affect several of the assets in your portfolio. It is virtually impossible to protect yourself against this type of risk.

Unsystematic Risk

Unsystematic risk is sometimes referred to as "specific risk". This kind of risk affects a very small number of assets. An example is news that affects a specific stock such as a sudden strike by employees. Diversification is the only way to protect y from unsystematic risk.

Credit or Default Risk

Credit risk is the risk that a company or individual will be unable to pay the contractual interest or principal on its debt obligations. This type of risk is of particular concern to investors who hold bonds in their portfolios. Government bonds, especially those issued by the federal government, have the least amount of default risk and the lowest returns, while corporate bonds tend to have the highest amount of default risk but also higher interest rates. Bonds with a lower chance of default are considered to be investment grade, while bonds with higher chances are considered to be junk bonds.

Country Risk

Country risk refers to the risk that a country won't be able to honor its financial commitments. When a country defaults on its obligations, this can harm the performance of all other financial instruments in that country as well as other countries it has relations with. Country risk applies to stocks, bonds, mutual funds, options and futures that are issued within a particular country. This type of risk is most often seen in emerging markets or countries that have a severe deficit.

Foreign-Exchange Risk

When investing in foreign countries you must consider the fact that currency exchange rates can change the price of the asset as well. Foreign-exchange risk applies to all financial instruments that are in a currency other than your domestic currency.

Interest Rate Risk

Interest rate risk is the risk that an investment's value will change as a result of a change in interest rates. This risk affects the value of bonds more directly than stocks.

Political Risk

Political risk represents the financial risk that a country's government will suddenly change its policies. This is a major reason why developing countries lack foreign investment.

Market Risk

This is the most familiar of all risks. Also referred to as volatility, market risk is the the day-to-day fluctuations in a stock's price. Market risk applies mainly to stocks and options. As a whole, stocks tend to perform well during a bull market and poorly during a bear market - volatility is not so much a cause but an effect of certain market forces. Volatility is a measure of risk because it refers to the behaviour, or "temperament", of investment rather than the reason for this behaviour. Because market movement is the reason why people can make money from stocks, volatility is essential for returns, and the more unstable the investment the more chance there is that it will experience a dramatic change in either direction.

Government Securities Market

The money market is the arena in which financial institutions make available to a broad range of borrowers and investors the opportunity to buy and sell various forms of short-term securities. There is no physical "money market." Instead it is an informal network of banks and traders linked by telephones, fax machines, and computers. Money markets exist both in the United States and abroad.

The short-term debts and securities sold on the money markets—which are known as money market instruments—have maturities ranging from one day to one year and are extremely liquid. Treasury bills, federal agency notes, certificates of deposit (CDs), euro dollar deposits, commercial paper, bankers' acceptances, and repurchase agreements are examples of instruments. The suppliers of funds for money market instruments are institutions and individuals with a preference for the highest liquidity and the lowest risk.

The money market is important for businesses because it allows companies with a temporary cash surplus to invest in short-term securities; conversely, companies with a temporary cash shortfall can sell securities or borrow funds on a short-term basis. In essence the market acts as a repository for short-term funds. Large corporations generally handle their own short-term financial transactions; they participate in the market through dealers. Small businesses, on the other hand, often choose to invest in money-market funds, which are professionally, managed mutual funds consisting only of short-term securities.

Although securities purchased on the money market carry less risk than long-term debt, they are still not entirely risk free. After all, banks do sometimes fail, and the fortunes of companies can change rather rapidly. The low risk is associated with lender selectivity. The lender who offers funds with almost instant maturities ("tomorrow") cannot spend too much time qualifying borrowers and thus selects only blue-chip borrowers. Repayment therefore is assured (unless you caught Enron just before it suddenly nose-dived). Borrowers with fewer credentials, of course, have difficulty getting money from this market unless it is through well-established funds.

TYPES OF MONEY MARKET INSTRUMENTS – Indian Money Market:

Treasury Bills

Treasury bills (T-bills) are short-term notes issued by the U.S. government. They come in three different lengths to maturity: 90, 180, and 360 days. The two shorter types are auctioned on a weekly basis, while the annual types are auctioned monthly. T-bills can be purchased directly through the auctions or indirectly through the secondary market. Purchasers of T-bills at auction

can enter a competitive bid (although this method entails a risk that the bills may not be made available at the bid price) or a noncompetitive bid. T-bills for noncompetitive bids are supplied at the average price of all successful competitive bids.

Federal Agency Notes

Some agencies of the federal government issue both short-term and long-term obligations, including the loan agencies Fannie Mae and Sallie Mae. These obligations are not generally backed by the government, so they offer a slightly higher yield than T-bills, but the risk of default is still very small. Agency securities are actively traded, but are not quite as marketable as T-bills. Corporations are major purchasers of this type of money market instrument.

Short-Term Tax Exempts

These instruments are short-term notes issued by state and municipal governments. Although they carry somewhat more risk than T-bills and tend to be less negotiable, they feature the added benefit that the interest is not subject to federal income tax. For this reason, corporations find that the lower yield is worthwhile on this type of short-term investment.

Certificates of Deposit

Certificates of deposit (CDs) are certificates issued by a federally chartered bank against deposited funds that earn a specified return for a definite period of time. They are one of several types of interest-bearing "time deposits" offered by banks. An individual or company lends the bank a certain amount of money for a fixed period of time, and in exchange the bank agrees to repay the money with specified interest at the end of the time period. The certificate constitutes the bank's agreement to repay the loan. The maturity rates on CDs range from 30 days to six months or longer, and the amount of the face value can vary greatly as well. There is usually a penalty for early withdrawal of funds, but some types of CDs can be sold to another investor if the original purchaser needs access to the money before the maturity date.

Large denomination (jumbo) CDs of $100,000 or more are generally negotiable and pay higher interest rates than smaller denominations. However, such certificates are only insured by the FDIC up to $100,000. There are also eurodollar CDs; they are negotiable certificates issued against U.S. dollar obligations in a foreign branch of a domestic bank. Brokerage firms have a nationwide pool of bank CDs and receive a fee for selling them. Since brokers deal in large sums, brokered CDs generally pay higher interest rates and offer greater liquidity than CDs purchased directly from a bank.

Commercial Paper

Commercial paper refers to unsecured short-term promissory notes issued by financial and nonfinancial corporations. Commercial paper has maturities of up to 270 days (the maximum allowed without SEC registration requirement). Dollar volume for commercial paper exceeds the amount of any money market instrument other than T-bills. It is typically issued by large, credit-worthy corporations with unused lines of bank credit and therefore carries low default risk.

Standard and Poor's and Moody's provide ratings of commercial paper. The highest ratings are A1 and P1, respectively. A2 and P2 paper is considered high quality, but usually indicates that the issuing corporation is smaller or more debt burdened than A1 and P1 companies. Issuers earning the lowest ratings find few willing investors.

Unlike some other types of money-market instruments, in which banks act as intermediaries between buyers and sellers, commercial paper is issued directly by well-established companies, as well as by financial institutions. Banks may act as agents in the transaction, but they assume no principal position and are in no way obligated with respect to repayment of the commercial paper. Companies may also sell commercial paper through dealers who charge a fee and arrange for the transfer of the funds from the lender to the borrower.

Bankers' Acceptances

A banker's acceptance is an instruments produced by a nonfinancial corporation but in the name of a bank. It is document indicating that such-and-such bank shall pay the face amount of the instrument at some future time. The bank accepts this instrument, in effect acting as a guarantor. To be sure the bank does so because it considers the writer to be credit-worthy. Bankers' acceptances are generally used to finance foreign trade, although they also arise when companies purchase goods on credit or need to finance inventory. The maturity of acceptances ranges from one to six months.

Repurchase Agreements

Repurchase agreements—also known as repos or buybacks—are Treasury securities that are purchased from a dealer with the agreement that they will be sold back at a future date for a higher price. These agreements are the most liquid of all money market investments, ranging from 24 hours to several months. In fact, they are very similar to bank deposit accounts, and many corporations arrange for their banks to transfer excess cash to such funds automatically.

MEANING OF CAPITAL MARKET

A capital market is a financial market in which long-term debt or equity-backed securities are bought and sold. Capital markets are defined as markets in which money is provided for periods longer than a year.

Modern capital markets are almost invariably hosted on computer-based electronic trading systems; most can be accessed only by entities within the financial sector or the treasury departments of governments and corporations, but some can be accessed directly by the public. There are many thousands of such systems, most serving only small parts of the overall capital markets. Entities hosting the systems include stock exchanges, investment banks, and government departments.

A capital market can be either a primary market or a secondary market. In primary markets, new stock or bond issues are sold to investors, often via a mechanism known as underwriting. The main entities seeking to raise long-term funds on the primary capital markets are governments (which may be municipal, local or national) and business enterprises (companies). Governments issue only bonds, whereas companies often issue either equity or bonds. The main entities purchasing the bonds or stock include pension funds, hedge funds, sovereign wealth funds, and less commonly wealthy individuals and investment banks trading on their own behalf. In the secondary markets, existing securities are sold and bought among investors or traders, usually on an exchange, over-the-counter, or elsewhere. The existence of secondary markets increases the willingness of investors in primary markets, as they know they are likely to be able to swiftly cash out their investments if the need arises.

A second important division falls between the stock markets (for equity securities, also known as shares, where investors acquire ownership of companies) and the bond markets (where investors become creditors)

DEFINITION

Capital markets are markets for buying and selling equity and debt instruments. Capital markets channel savings and investment between suppliers of capital such as retail investors and institutional investors, and users of capital like businesses, government and individuals. Capital markets are vital to the functioning of an economy, since capital is a critical component for generating economic output. Capital markets include primary markets, where new stock and bond issues are sold to investors, and secondary markets, which trade existing securities.

Difference between Capital Market and Money Market

The money markets are used for the raising of short term finance, sometimes for loans that are expected to be paid back as early as overnight. Whereas the capital markets are used for the raising of long term finance, such as the purchase of shares, or for loans that are not expected to be fully paid back for at least a year.

Funds borrowed from the money markets are typically used for general operating expenses, to cover brief periods of liquidity. For example, a company may have inbound payments from customers that have not yet cleared, but may wish to immediately pay out cash for its payroll. When a company borrows from the primary capital markets, often the purpose is to invest in additional physical capital goods, which will be used to help increase its income. It can take many months or years before the investment generates sufficient return to pay back its cost, and hence the finance is long term.

Together, money markets and capital markets form the financial markets as the term is narrowly understood. The capital market is concerned with long term finance. In the widest sense, it consists of a series of channels through which the savings of the community are made available for industrial and commercial enterprises and public authorities.

STRUCTURE OF CAPITAL MARKET

The capital market is classified in to two categories. They are the Primary market (New Issues Market) and the Secondary market (Old (Existing) Issues Market). This classification is done on the basis of the nature of the instrument brought in the market. However on the basis of the types of institutions involved in capital market, it can be classified into various categories such as the Government Securities market or Gilt-edged market, Industrial Securities market, Development Financial Institutions (DFIs) and Financial intermediaries. All of these components have specific features to mention. The structure of the Indian capital market has its distinct features. These different segments of the capital market help to develop the institution of capital market in many dimensions. The primary market helps to raise fresh capital in the market. In the secondary market, the buying and selling (trading) of capital market instruments takes place. The following chart will help us in understanding the organizational structure of the Indian Capital market.

1. Government Securities Market : This is also known as the Gilt-edged market. This refers to the market for government and semi-government securities backed by the Reserve Bank of India (RBI).
2. Industrial Securities Market : This is a market for industrial securities i.e. market for shares and debentures of the existing and new corporate firms. Buying and selling of such instruments take place in this market. This market is further classified into two types such as the New Issues Market (Primary) and the Old (Existing) Issues Market (secondary). In primary market fresh capital is raised by companies by issuing new shares, bonds, units of mutual funds and debentures. However in the secondary market already existing i.e old shares and debentures are traded. This trading takes place through the registered stock exchanges. In India we have three prominent stock exchanges. They are the Bombay Stock Exchange (BSE), the National Stock Exchange (NSE) and Over The Counter Exchange of India (OTCEI).
3. Development Financial Institutions (DFIs) : This is yet another important segment of Indian capital market. This comprises various financial institutions. These can be special purpose institutions like IFCI, ICICI, SFCs, IDBI, IIBI, UTI, etc. These financial institutions provide long term finance for those purposes for which they are set up.

Financial Intermediaries: The fourth important segment of the Indian capital market is the financial intermediaries. This comprises various merchant banking institutions, mutual funds, leasing finance companies, venture capital companies and other financial institutions.

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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

POSSIBLE QUESTIONS

UNIT – 1

1. _____ is based on tips, removers and hunches.

a). Speculation b). Investment **c). Gambling** d). Portfolio

2. Investor requires _____ in his investments to meet emergencies.

a). Stability b). **Liquidity** c). Tangibility d). Uncertainty

3. Building machinery & land are considered as _____.

a). Tangible properties b). Intangible c). Liquidity d) Uncertainty

4. _____ are the biggest purchasers of stock certificates.

a). LIC b). Provident funds c). Pension fund d). **LIC & Provident fund**

5. _____ requires a knowledge of the different aspects of securities

a). Portfolio b). Investment c). Speculation d). Gambling

6. _____ is the usual form of government securities

a). Promissory notes b). Stock certificates c). Deposits d). Common Socks

7. A short term holding is associated with trading is called

a). Speculation b). Investment c). Gambling d). Portfolio

8. _____ consists of uncertainty and high stokers for thrill and excitement

a). Investment b). **Gambling** c). Speculation d). Portfolio

9. _____ is the employment of funds.

a). Investment b). Speculation c). Gambling d). Portfolio

10. _____ involves long term commitment.

a). Investment b). Speculation c). Gambling d). Portfolio

11. _____ refers to the possibility of incurring a loss in a financial transaction.

a). Capital gains **b). Risk** c). Uncertainty d). Return

12. _____ is an involvement of funds of high risk.

a). Investment **b). Speculation** c). Risk d). Gambling

13. _____ provides protection against early death.

a). Life insurance b). Investment c). Mutual Fund d). Bank Deposits

14. _____ fixed deposits also qualify as collateral for loans.

a). Commercial banks b). Saving banks c). RBI d). LIC

15. _____ is usually opened by a business house.

a). Savings account b). **Current account** c). Fixed deposit scheme

d). Mutual fund schemes

PART - B

1. Explain the importance of Investment Programme?
2. What is the factor that determines Risk? Describe the various methods of measuring risk.
3. Explain the process of Investment Programme?
4. Enumerate the Investment Media with suitable examples?
5. Explain the various features of Investment Programme.
6. Define Risk? Explain the Systematic risk and its types.
7. The investment process involves a series of activities starting from the policy formulation – Discuss
8. Enumerate the Alternative sources of Investment in India with suitable example?
9. Explain the factor favorable for making Investment?
10. Explain the different types of Risk with suitable example?

KARPAGAM ACADEMY OF HIGHER EDUCATION
(DEEMED TO BE UNIVERSITY)
(ESTABLISHED UNDER SECTION 3 OF UGC ACT 1956)
DEPARTMENT OF COMMERCE
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
UNIT I

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
1	A ----------is an activity that is engaged in by people who have savings	gambling	Investment	Speculation	Bonds	investment
2	An example of money market instrument is	bond	debenture	stock certificate	certificate of deposit	certificate of deposit
3	Government bond is a	Long-term security	short-term security	medium-term securities	neither long-term or short-term	Long-term security
4	Investing money in a private business is known as -------	finacial investment	economic investment	business investment	social investment	business investment
5	LIC is primarily a	broker	money market intermidiary	econdary market intermidiary	lenders	money market intermidiary
6	Financial sytems includes	financial market	share market	financial and share market	capital market	financial market
7	The objectives of any investments made by an investor	Maximisation of return	Maximisation of return and Maximum of risk	Minimisation of return	Minimisation of risk	Maximisation of return and Maximum of risk
8	A voluntary provident fund scheme called Public Provident Fund is operated by	Post office	Certain authorized Banks	Employee Provident fund organization	Post office and Certain authorized Banks	Post office and Certain authorized Banks
9	Fixed income securities are subject to _____ risk	Interest rate	Performance	Capital	Dividends	Interest rate
10	_____ is operated by Post office and Certain authorized Banks	Public Provident Fund	LIC Scheme	Employee Provident fund	Equity capital fund	Public Provident Fund
11	building , machinery & land are considered as	Tangible properties	Intangible properties	Tangible and Intangible properties	Visible properties	Tangible properties
12	The differences between the sale price and the purchase price is called ---------	depreciation	capital appreciation	investment	gambling	capital appreciation

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
13	Investors buy	high grade securities	low grade securities	securities for short-term purposes	cost of purchase	high grade securities
14	The negotiable financial investment differs from non-negotiable financial investment in terms of	face value	transferability	maturity period	interest rate	transferability
15	Investment made in real estate is a	real investment	financial investment	non-financial investment	intangible investment	real investment
16	Which one of the following is not a fixed income bearing security ?	debentures	bonds	fixed deposits	equity shares	equity shares
17	Which one the following scheme helps in reducing tax liability ?	investment in real estate	national saving certificate	eqity shares	savings bank account	national saving certificate
18	A ---------- is the allocation of funds to assets and securites after considering their return and risk features	gambling	Investment	Speculation	Bonds	Investment
19	Investment in gold and silver is considered ---------- investment	real investment	risk free	risk	certain	real investment
20	The stock that higher rate of growth than the industrial growth rate in profitability are referred to as ----------	growth shares	equity	preference	debenture	growth shares
21	Gambling is a	very long term investment	very short term investment	medium investment	average investment	very short term investment
22	The securities issued by the central , state and quasi-governement are known as ----------	face value	real investment	government securities	intrinsic securities	govt securities
23	Which one of the following is a contingent investment ?	recuring deposit	bonds	equity shares	life insurance policy	life insurance policy
24	A current account is a	liquid period	running account	mutual	temporary	running account
25	The component of a capital market is	treasury bill market	govt. securities market	commercial bill market	RBI	govt. securities market
26	Governement securities are	risky securities	not risky securities	expected securities	mutual securities	not risky securities
27	Long term loan market is	capital market	money market	primary market	secondary market	capital market

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
28	Governement securities are issued in the form	pledge	new method	promisory note	prepaid	promisory note
29	_____includes the financial markets and the financial institutions	financial system	fiscal policy	economy rates	nature of the firm	financial system
30	_____Includes call money market, treasury bills market, commercial bills, and short term loan market	Insurance company	LIC	RBI	the impirial bank of india	the impirial bank of india
31	_____risks are non-diversible abd arise out of the market,nature of the industry, state of the economy, etc	unsystematic risk	systematic risk	market risk	economic risk	systematic risk
32	_____ Risk is that portion of total risks that is unique, or peculiar to a firm or an industry	unsystematic risk	systematic risk	market risk	economic risk	unsystematic risk
33	_____is arrived at by dividing the annual coupon price by purchase price	price earning ratio	purchasing power	current yield	interest rate	current yield
34	_____is arrived at by dividing market price per share by earnings per share	price earning ratio	current yield	interest rate	dividend	price earning ratio
35	_____The risk affects the market as a whole	unsystematic risk	market risk	current yield	systematic	systematic
36	_____risk is the variation in return caused by the changes in the market interest rate	interest rate	intrinsic value	dividend policy	mutual value	interest rate
37	_____ Risk is caused by inflation	purchasing power	current yield	price earning ratio	mutual value	purchasing power
38	_____Risk is unique to the particular industry or company	unsystematic risk	market risk	current yield	systematic	unsystematic risk
39	Which of the following risks energes from the debt component of the capital strucuture	financial risk	business risk	purchasing power risk	market risk	financial risk
40	Interest rate risks is a ----------	systematic risk	unsystematic risk	internal risk	market risk	systematic risk

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
41	A ---------- is a pessimistic speculator	bull	bear	stag	lameduck	bear
42	Indentify th uncontrollable risk of a company	technological obsolescence	cut in subsidy	labour prblem	increase in loan serices charges	cut in subsidy
43	In the weak form of market stock prices reflect	the past prices and traded volumes	the demand for the scrip	the country economic conditions	the past price of the scrip	the past prices and traded volumes
44	Risk is influenced by the	internal or exteernal risk	internal	external	market risk	internal or exteernal risk
45	Risk is	certainity	uncertainity	appreciable	not appreciable	uncertainity
46	Market risk arises out of the changes in the pattern of	demand and supply	supply	demand	profit	demand and supply
47	Internal business risk is associated with the	external environment	internal environment	organisation	management	internal environment
48	External Risk is associated with the	external environment	internal environment	organisation	management	external environment
49	Money market is a market for purely	long term funds	medium term funds	short term funds	certain period	short term funds
50	A ----- is an optimistic speculator	bear	stag	bear	lameduck	bull
51	The financial system as it existed in india at	1988	1947	1926	1977	1947
52	Investment is the	net addition made to the nation's capital stock	person's commitment to buy a flat	employement of funds on assets to earn return	monetary system	employement of funds on assets to earn return
53	Gambling is	an intelligent speculation	based on rumours	successful speculation	game	based on rumours
54	If the investment is properly undertaken, then	the return will commensurate with the risk	the return will be certain	it will be liquid	not commensurate	the return will commensurate with the risk
55	Risk is also arise due to changes in the	company policy	market rules	dividend policy	government policies	government policies
56	Principal amount and terminal value are known with certainty	Fixed principal investments	Variable investments	Inditect alternatives	Ditect alternatives	Fixed principal investments
57	The price of preference shares is determined by ____	Demand	Supply	Demand and Supply	Return	Demand and Supply
58	The terminal value of real estate is	Certain	Uncertain	Risk	Return	Uncertain

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
59	_____ are the integral part of an investment decision	Risk	Uncertainty	Risk & Uncertain	Return	Risk & Uncertain
60	_____ risk is alo called as operating risk	Financial risk	Business risk	Management risk	Political risk	Business risk

UNIT II

Stock Markets: Concepts – Bull- Bear-PE Ratio-Different Stock Market Ratio -SEBI - Structure – Functioning – NSE and BSE – Functions – Listing of Securities – New Issue Market- Mechanics of Trading in Stock Exchange – Evaluation of Securities, Equity , Preference, Debt, Hybrid Securities, - OTCEI

Introduction to Stock Markets:

Mark Twain once divided the world into two kinds of people: those who have seen the famous Indian monument, the Taj Mahal, and those who haven't. The same could be said about investors. There are two kinds of investors: those who know about the investment opportunities in India and those who don't. India may look like a small dot to someone in the U.S., but upon closer inspection, you will find the same things you would expect from any promising market. Here we'll provide an overview of the Indian stock market and how interested investors can gain exposure.

The BSE and NSE

Most of the trading in the Indian stock market takes place on its two stock exchanges: the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The BSE has been in existence since 1875. The NSE, on the other hand, was founded in 1992 and started trading in 1994. However, both exchanges follow the same trading mechanism, trading hours, settlement process, etc. At the last count, the BSE had about 4,700 listed firms, whereas the rival NSE had about 1,200. Out of all the listed firms on the BSE, only about 500 firms constitute more than 90% of its market capitalization; the rest of the crowd consists of highly illiquid shares.

Almost all the significant firms of India are listed on both the exchanges. NSE enjoys a dominant share in spot trading, with about 70% of the market share, as of 2009, and almost a complete monopoly in derivatives trading, with about a 98% share in this market, also as of 2009. Both exchanges compete for the order flow that leads to reduced costs, market efficiency and innovation. The presence of arbitrageurs keeps the prices on the two stock exchanges within a very tight range.

Trading at both the exchanges takes place through an open electronic limit order book, in which order matching is done by the trading computer. There are no market makers or specialists and the entire process is order-driven, which means that market orders placed by investors are automatically matched with the best limit orders. As a result, buyers and sellers remain anonymous. The advantage of an order driven market is that it brings more transparency, by displaying all buy and sell orders in the trading system. However, in the absence of market makers, there is no guarantee that orders will be executed.

All orders in the trading system need to be placed through brokers, many of which provide online trading facility to retail customers. Institutional investors can also take advantage of the direct market access (DMA) option, in which they use trading terminals provided by brokers for placing orders directly into the stock market trading system.

Settlement Cycle and Trading Hours

Equity spot markets follow a T+2 rolling settlement. This means that any trade taking place on Monday, gets settled by Wednesday. All trading on stock exchanges takes place between 9:55 am and 3:30 pm, Indian Standard Time (+ 5.5 hours GMT), Monday through Friday. Delivery of shares must be made in dematerialized form, and each exchange has its own clearing house, which assumes all settlement risk, by serving as a central counterparty.

Market Indexes

The two prominent Indian market indexes are Sensex and Nifty. Sensex is the oldest market index for equities; it includes shares of 30 firms listed on the BSE, which represent about 45% of the index's free-float market capitalization. It was created in 1986 and provides time series data from April 1979, onward.

Another index is the S&P CNX Nifty; it includes 50 shares listed on the NSE, which represent about 62% of its free-float market capitalization. It was created in 1996 and provides time series data from July 1990, onward.

Market Regulation

The overall responsibility of development, regulation and supervision of the stock market rests with the Securities & Exchange Board of India (SEBI), which was formed in 1992 as an independent authority. Since then, SEBI has consistently tried to lay down market rules in line

with the best market practices. It enjoys vast powers of imposing penalties on market participants, in case of a breach.

Who Can Invest In India?

India started permitting outside investments only in the 1990s. Foreign investments are classified into two categories: foreign direct investment (FDI) and foreign portfolio investment (FPI). All investment in which an investor takes part in the day-to-day management and operations of the company, are treated as FDI, whereas investments in shares without any control over management and operations, are treated as FPI. For making portfolio investment in India, one should be registered either as a foreign institutional investor (FII) or as one of the sub-accounts of one of the registered FIIs. Both registrations are granted by the market regulator, SEBI.

Foreign institutional investors mainly consist of mutual funds, pension funds, endowments, sovereign wealth funds, insurance companies, banks, asset management companies etc. At present, India does not allow foreign individuals to invest directly into its stock market. However, high-net-worth individuals (those with a net worth of at least $US50 million) can be registered as sub-accounts of an FII.

Foreign institutional investors and their sub accounts can invest directly into any of the stocks listed on any of the stock exchanges. Most portfolio investments consist of investment in securities in the primary and secondary markets, including shares, debentures and warrants of companies listed or to be listed on a recognized stock exchange in India. FIIs can also invest in unlisted securities outside stock exchanges, subject to approval of the price by the Reserve Bank of India. Finally, they can invest in units of mutual funds and derivatives traded on any stock exchange.

An FII registered as a debt-only FII can invest 100% of its investment into debt instruments. Other FIIs must invest a minimum of 70% of their investments in equity. The balance of 30% can be invested in debt. FIIs must use special non-resident rupee bank accounts, in order to move money in and out of India. The balances held in such an account can be fully repatriated.

Restrictions/Investment Ceilings

The government of India prescribes the FDI limit and different ceilings have been prescribed for different sectors. Over a period of time, the government has been progressively increasing the ceilings. FDI ceilings mostly fall in the range of 26-100%.

By default, the maximum limit for portfolio investment in a particular listed firm, is decided by the FDI limit prescribed for the sector to which the firm belongs. However, there are two additional restrictions on portfolio investment. First, the aggregate limit of investment by all FIIs, inclusive of their sub-accounts in any particular firm, has been fixed at 24% of the paid-up capital. However, the same can be raised up to the sector cap, with the approval of the company's boards and shareholders.

Secondly, investment by any single FII in any particular firm should not exceed 10% of the paid-up capital of the company. Regulations permit a separate 10% ceiling on investment for each of the sub-accounts of an FII, in any particular firm. However, in case of foreign corporations or individuals investing as a sub-account, the same ceiling is only 5%. Regulations also impose limits for investment in equity-based derivatives trading on stock exchanges.

Investment Opportunities for Retail Foreign Investors

Foreign entities and individuals can gain exposure to Indian stocks through institutional investors. Many India-focused mutual funds are becoming popular among retail investors. Investments could also be made through some of the offshore instruments, like participatory notes (PNs) and depositary receipts, such as American depositary receipts (ADRs), global depositary receipts (GDRs), and exchange traded funds (ETFs) and exchange-traded notes (ETNs).

As per Indian regulations, participatory notes representing underlying Indian stocks can be issued offshore by FIIs, only to regulated entities. However, even small investors can invest in American depositary receipts representing the underlying stocks of some of the well-known Indian firms, listed on the New York Stock Exchange and Nasdaq. ADRs are denominated in dollars and subject to the regulations of the U.S. Securities and Exchange Commission (SEC). Likewise, global depositary receipts are listed on European stock exchanges. However, many promising Indian firms are not yet using ADRs or GDRs to access offshore investors.

Retail investors also have the option of investing in ETFs and ETNs, based on Indian stocks. India ETFs mostly make investments in indexes made up of Indian stocks. Most of the stocks included in the index are the ones already listed on NYSE and Nasdaq. As of 2009, the two most prominent ETFs based on Indian stocks are the Wisdom-Tree India Earnings Fund

The most prominent ETN is the MSCI India Index Exchange Traded Note (NYSE:INP). Both ETFs and ETNs provide good investment opportunity for outside investors. Emerging markets like India, are fast becoming engines for future growth. Currently, only a very low percentage of the household savings of Indians are invested in the domestic stock market, but with GDP growing at 7-8% annually and a stable financial market, we might see more money joining the race. Maybe it's the right time for outside investors to seriously think about joining the India bandwagon.

DEFINITION of 'Bull/Bear Ratio'

A market-sentiment indicator published weekly by Investor's Intelligence that uses information polled directly from market professionals. This index reflects the sentiments of market participants that deal daily within the financial markets and it gives a more relevant measure.

$$\text{Bull/Bear Ratio} = \frac{\text{Bullish Investment Advisors}}{\text{Bearish Investment Advisors}}$$

BREAKING DOWN 'Bull/Bear Ratio'

High readings of the ratio indicate a bearish sentiment, whereas low readings indicate a bullish one. Typically, extremely high and low readings have shown simultaneous market tops and bottoms.

MECHANICS OF SECURITY TRADING IN STOCK EXCHANGES

An investor must have some knowledge of how the securities markets operate. The marketing of old or new securities of the stock markets can be done only through members of the Stock Exchange. These members are either individuals or partnership firms.

An individual must use the facilities of these members for trading in securities. The member is a registered dealer of an organized stock exchange. Trading among the members of a

recognized stock exchange is to be done under the statutory regulations of the stock exchange. The members carrying on business are known as 'brokers' and can trade only on listed securities.

These members execute customer's orders to buy and sell on the exchange and their firms receive negotiated commissions on those transactions. About one-fourth of all members of the exchange are 'specialists', so called because they specialize in 'making a market' for one or more particular kind of stock.

In the process of trading in stock exchanges, there is the basic need for a 'transaction' between an individual and broker. A transaction to buy and sell securities is also called 'trades'. This is to be done through selection of a broker.

Specified and Non-specified Securities:

It is useful to know that three kinds of securities can be traded upon in the Mumbai Stock Exchange — specified, non-specified and odd lot. In the specified category of equity shares, the criteria are that the share should be listed on the stock exchange for at least 3 years and the issued capital should not be less than Rs. 75 crores.

A capital adequacy norm has also been suggested for individual brokers. These reforms have been brought about after recommendations were made by G. S. Patel Committee in 1995. SEBI was set up to regulate the organization and working of the stock exchanges and members operating within it.

SEBI has brought about uniformity in the different stock exchanges. Nine stock exchanges were given permanent recognition. Every stock exchange is to be managed by a committee called a governing board consisting of brokers, directors, government, SEBI and public representatives.

NEW ISSUE MARKET

New Issue Market. New issues are offered in the primary market and sold to the public for the first time as initial public offerings, or IPOs. New issues are usually handled for a corporation by an underwriting syndicate comprised of investment banks and selling groups.

The primary market is the part of the capital market that deals with issuing of new securities. Primary markets create long term instruments through which corporate entities raise funds from the capital market.

In a primary market, companies, governments or public sector institutions can raise funds through bond issues and corporations can raise capital through the sale of new stock through an initial public offering (IPO). This is often done through an investment bank or finance syndicate of securities dealers. The process of selling new shares to investors is called underwriting. Dealers earn a commission that is built into the price of the security offering, though it can be found in the prospectus.

Instead of going through underwriters, corporations can make a primary issue of its debt or stock, which involves the issue by a corporation of its own debt or new stock directly to institutional investors or the public or it can seek additional capital from existing shareholders.

Once issued the securities typically trade on a secondary market such as a stock exchange, bond market or derivatives exchange.

FEATURES OF PRIMARY MARKET

The main features of primary markets are:

This is the market for new long term equity capital. The primary market is the market where the securities are sold for the first time. Therefore, it is also called the new issue market (NIM).

- In a primary issue, the securities are issued by the company directly to investors.
- The company receives the money and issues new security certificates to the investors.
- Primary issues are used by companies for the purpose of setting up new business or for expanding or modernizing the existing business.

The primary market performs the crucial function of facilitating capital formation in the economy.

The new issue market does not include certain other sources of new long term external finance, such as loans from financial institutions. Borrowers in the new issue market may be raising capital for converting private capital into public capital; this is known as "going public."

Its share can be issue in face value, premium value & par value.

ROLE AND FUNCTIONS OF NEW ISSUE MARKET

The main function of the New Issue Market is to facilitate the 'transfer of resources' from savers to users. Conceptually, however, the New Issue Market should not be conceived as a platform only for the purpose of raising finance for new capital expenditure.

In fact, the facilities of the market are also utilised for selling existing concerns to the public as going concerns through conversions of existing proprietary enterprises or private companies into public companies.

This is more an "exclusive" classification in that two types of issues are excluded from the category of new issues.

(a) Bonus/capitalisation issues which represent only book keeping entries.

(b) Exchange issues: by which shares in one company are/exchanged for securities of another.

Now, the main function of the New Issue Market, i.e. channelling of investible funds, can be divided, from the operational stand-point, into a triple-service function:

(a) Origination

(b) Underwriting

(c) Distribution

The institutional setup dealing with these can be said to constitute the New Issue Market organisation. Let us elucidate a little on all of these.

(a) Origination

Origination refers to the work of investigation and analysis and processing of new proposals. This in turn may be:

(i) A preliminary investigation undertaken by the sponsors (specialised agencies) of the issue. This involves a/careful study of the technical, economic, financial and/legal aspects of the issuing companies to ensure that/it warrants the backing of the issue house.

(ii) Services of an advisory nature which go to improve the quality of capital issues. These services include/advice on such aspects of capital issues as: determination of the class of security to be/issued and price of the issue in terms of market conditions; the timing and magnitude of issues; method of flotation; and technique of selling and so on.

The importance of the specialized services provided by the New Issue Market organization in this respect can hardly be over-emphasized. On the thoroughness of investigation and soundness of judgment of the sponsoring institution depends, to a large extent, the allocate efficiency of the market. The origination, however, thoroughly done, will not by itself guarantee success of an issue. A second specialized service i.e. "Underwriting" is often required.

(b) Underwriting

The idea of underwriting originated on account of uncertainties prevailing in the capital market as a result of which the success of the issue becomes unpredictable. If the issue remains undersubscribed, the directors cannot proceed to allot the shares, and have to return money to the applicants if the subscription is below a minimum amount fixed under the Companies Act. Consequently, the issue and hence the project will fail.

Underwriting entails an agreement whereby a person/organisation agrees to take a specified number of shares or debentures or a specified amount of stock offered to the public in the event of the public not subscribing to it, in consideration of a commission the underwriting commission.

If the issue is fully subscribed by the public, there is no liability attaching to the underwriters; else they have to come forth to meet the shortfall to the extent of the under-subscription. The underwriters in India may broadly be classified into the following two types:

(i) Institutional Underwriters;

(ii) Non-Institutional Underwriting.

Institutional Underwriting in our country has been development oriented. It stands as a major support to those projects which often fail to catch the eye of investing public. These projects rank high from the points of view of national importance e.g. steel, fertilizer, and generally receive higher priority by such underwriters.

Thus institutional underwriting may be broadly recognized, in the context of development credit, as playing a decisive role in directing the economic resources of the country towards desired activities.

This does not mean that they are barred entrance in the issue market from so called glamorous issues to which public can be expected to readily subscribe. They may be

underwriting in such cases, but what is expected of them is their support to projects in the priority sector.

One of the principal advantages they offer is that resource-wise they are undoubted. They are in a position to fulfill their underwriting commitments even in the worst foreseeable situations.

The public financial institutions namely IDBI, IFCI, ICICI, LIC and UTI, underwrite a portion of the issued capital. Usually, the underwriting is done in addition to granting term finance by way of loans on debentures. These institutions are usually approached when one or more of the following situations prevail:

(i) The issue is so large that broker-underwriting may not be able to cover the entire issue.

(ii) The gestation period is long enough to act as distinctive

(iii) The project is weak, inasmuch as it is being located in a backward area.

(iv) The project is in the priority sector which may not be able to provide an attractive return on investment.

(v) The project is promoted by technicians.

(vi) The project is new to the market.

The quantum of underwriting assistance varies from institution to institution according to the commitments of each of them for a particular industry.

However, institutional underwriting suffers from the following two drawbacks:

1. The institutional handling involves procedural delays which sometimes dampen the initiative of the corporate managers or promoters.

2. The other disadvantage is that the institutions prefer to wait and watch the results to fulfill their obligations only where they are called upon to meet the deficit caused by under subscription.

(c) Distribution

The sale of securities to the ultimate investors is referred to as distribution; it is another specialised job, which can be performed by brokers and dealers in securities who maintain regular and direct contact with the ultimate investors. The ability of the New Issue Market to cope with the growing requirements of the expanding corporate sector would depend on this triple-service function.

SECONDARY MARKET

The secondary market is where investors buy and sell securities they already own. It is what most people typically think of as the "stock market," though stocks are also sold on the primary market when they are first issued. The national exchanges, such as the New York Stock Exchange (NYSE) and theNASDAQ, are secondary markets.

Primary vs. Secondary Markets

It is important to understand the distinction between the secondary market and the primary market. When a company issues stock or bonds for the first time and sells those securities directly to investors, that transaction occurs on the primary market. Some of the most common and well-publicized primary market transactions are IPOs, or initial public offerings. During an IPO, a primary markettransaction occurs between the purchasing investor and the investment bank underwriting the IPO. Any proceeds from the sale of shares of stock on the primary market go to the company that issued the stock, after accounting for the bank's administrative fees.

If these initial investors later decide to sell their stake in the company, they can do so on the secondary market. Any transactions on the secondary market occur between investors, and the proceeds of each sale go to the selling investor, not to the company that issued the stock or to the underwriting bank.

The secondary market, also called the aftermarket, is the financial market in which previously issued financial instruments such as stock, bonds, options, and futures are bought and sold.[1] Another frequent usage of "secondary market" is to refer to loans which are sold by a mortgage bank to investorssuch as Fannie Mae and Freddie Mac.

The term "secondary market" is also used to refer to the market for any used goods or assets, or an alternative use for an existing product or asset where the customer base is the second market (for example, corn has been traditionally used primarily for food production and feedstock, but a "second" or "third" market has developed for use in ethanol production).

With primary issuances of securities or financial instruments, or the primary market, investors purchase these securities directly from issuers such ascorporations issuing shares in an IPO or private placement, or directly from the federal government in the case of treasuries. After the initial issuance, investors can purchase from other investors in the secondary market.

FUNCTIONS

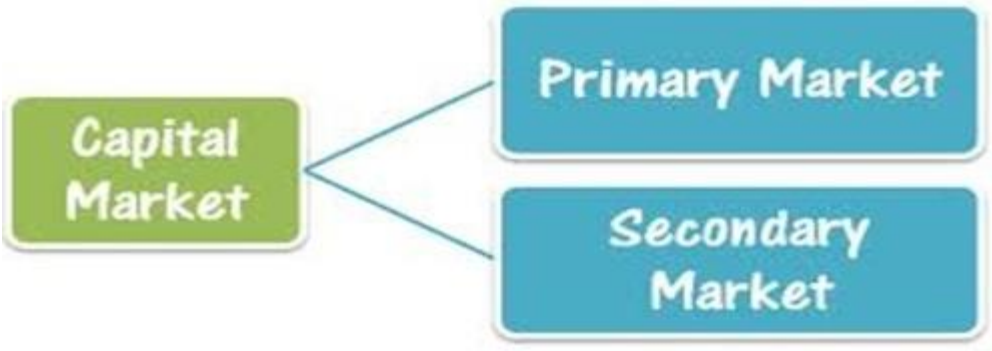
In the secondary market, securities are sold by and transferred from one investor or speculator to another. It is therefore important that the secondary market be highly liquid (originally, the only way to create this liquidity was for investors and speculators to meet at a fixed place regularly; this is how stock exchanges originated, see History of the Stock Exchange). As a general rule, the greater the number of investors that participate in a given marketplace, and the greater the centralization of that marketplace, the more liquid the market.

Fundamentally, secondary markets mesh the investor's preference for liquidity (i.e., the investor's desire not to tie up his or her money for a long period of time, in case the investor needs it to deal with unforeseen circumstances) with the capital user's preference to be able to use the capital for an extended period of time.

Accurate share price allocates scarce capital more efficiently when new projects are financed through a new primary market offering, but accuracy may also matter in the secondary market because: 1) price accuracy can reduce the agency costs of management, and make hostile takeover a less risky proposition and thus move capital into the hands of better managers, and 2) accurate share price aids the efficient allocation of debt finance whether debt offerings or institutional borrowing

The financial market is a world where new securities are issued to the public regularly. It is a world full of varied financial products and services, tailored to the need of every individual from all income brackets. These financial products are bought and sold on the capital market, which is divided into primary market and secondary market.

This post will be a detailed explanation of primary market and secondary market, and will draw the distinction of primary market vs. secondary market.



What Is Primary Market?

The primary market is also known as new issues market. Here, the transaction is conducted between the issuer and the buyer. In short, the primary market creates new securities and offers them to the public.

For instance, Initial Public Offering (IPO) is an offering of the primary market where a private company decides to sell stocks to the public for the first time. An important point to remember here is that in the primary market, securities are directly purchased from the issuer.

Capital or equity can be raised in primary market by any of the following four ways:

1. Public Issue

As the name suggests, public issue means selling securities to public at large, such as IPO. It is the most vital method to sell financial securities.

2. Rights Issue

Whenever a company needs to raise supplementary equity capital, the shares have to be offered to present shareholders on a pro-rata basis, which is known as the Rights Issue.

3. Private Placement

This is about selling securities to restricted number of classy investors like frequent investors, venture capital funds, mutual funds and banks comes under Private Placement.

4. Preferential Allotment

When a listed company issues equity shares to a selected number of investors at a price that may or may not be pertaining to the market price is known as Preferential Allotment.

The primary market is also known as the New Issue Market (NIM) as it is the market for issuing long-term equity capital. Since the companies issue securities directly to the investors, it is responsible to issue the security certificates too. The creation of new securities facilitates growth within the economy.

What Is Secondary Market?

In secondary market, the securities issued in the primary market are bought and sold. Here, you can buy a share directly from a seller and the stock exchange or broker acts as an intermediary between two parties.

The secondary market is actually formed by another layer of investors who deal with primary market investor to buy and sell financial securities such as bonds, futures and stocks. These dealings happen in the proverbial stock exchange.

National Stock Exchange (NSE) and New York Stock Exchange (NYSE) are some popular stock exchanges. Majorly, the trade happens between investors without any involvement with the company that issued the securities in the primary market.

The secondary market is further divided into two kinds of market.

1. Auction Market

The auction market is a place where buyers and sellers convene at a place and announce the rate at which they are willing to sell or buy securities. They offer either the 'bid' or 'ask' prices, publicly. Since all buyers and sellers are convening at the same place, there is no need for investors to seek out profitable options. Everything is announced publicly and interested investors can make their choice easily.

2. Dealer Market

In a dealer market, none of the parties convene at a common location. Instead, buying and selling of securities happen through electronic networks which are usually fax machines, telephones or custom order-matching machines.

Interested sellers deliver their offer through these mediums, which are then relayed over to the buyers through the medium of dealers. The dealers possess an inventory of securities and earn their profit through the selling. A lot of dealers operate within this market and therefore, a competition exists between them to deliver the best offer to their investors. This makes them deliver the best price to the investors. An example of a dealer market is the NASDAQ.

The secondary markets are important for price discovery. The market operations are carried out on stock exchanges.

A variation to the dealer market is the OTC market. OTC stands for 'Over the Counter' market. The concept came into existence during the early 1920's period through Wall Street trading, which implied the prevalence of an unorganized system of dealers who conducted trades via networks. Stock shops existed to buy and sell shares over-the-counter. In other words, these were unlisted stocks which were sold privately.

Over time, the notion of OTC underwent a change. These days the over-the-counter denotes those stocks which are not traded over NYSE, NASDAQ or American Stock Exchange (AMEX). The over-the-counter implies those stocks which are traded on the pink sheetsor on over-the-counter bulletin boards (OTCBB). Pink sheets are a name given to the daily list of stocks published with ask and bid prices by the National Quotation Bureau. The OTCBB service is offered by the National Association of Securities Dealers (NASD) which accurately displays the last sale prices, real time quotations and other volume information of over-the-counter securities.

Evaluation of Securities, Equity, Debt :

Debenture Valuation:

A bond is an instrument of debt issued by a business house or a government unit. The bonds may be issued at par, premium or discount. The par value is the amount stated on the face of the bond. It states the amount the firm borrows and promises to repay at the time of maturity.

The bonds carry a fixed rate of interest payable at fixed intervals of time. The interest is calculated by multiplying the value of bonds with the rate of interest.

Bond valuation is, generally, called debt valuation because the features that distinguish bonds from other debts are primarily non-financial in nature. Since bonds have a promised payment stream, they are less risky as compared to the shares. But it does not mean that they are totally risk free.

Therefore, the required rate of return on a firm's bond will exceed the risk free interest rate but will be less than the required rate of return on shares. The differences in required rates of return among bonds of different companies are caused by differences in 'default risk'. The value of the bond depends upon the discount rate. It will decrease with every increase in the discount rate.

For the purpose of valuation, bonds may be classified into two categories:

(i) Bonds with a maturity period, and

(ii) Bonds in perpetuity.

(i) Bonds with a Maturing Period:

When the bonds have a definite maturity period, its valuation is determined by considering the annual interest payments plus its maturity value.

The following formula can be used to determine the value of a bond:

$$V_0 = \sum_{t=1}^{10} \frac{1000}{(1.10)^t} = 1000(ADF_{10\%, 10 \text{ years}})$$
$$= 1,000 \times 6.145$$
$$= ₹\ 6,145$$

where, V_d = Value of bond or debt

R_1, R_2……. =Annual interest (Rs.) in period 1, 2, …, and so on

K_d = Required rate of return

M = Maturity value of bond

n = Number of years to maturity.

It must be observed from the above equation that as n becomes large, it becomes difficult to calculate $(1 + k_d)^n$.

Symbolically:

$V_d = (R)(ADF_{i, n}) + (M)(DF_{i, n})$

Bonds Redeemable in Installments:

A company may issue a bond or debenture to be redeemed periodically. In such a case, principal amount is repaid partially each period instead of a lump sum at maturity and hence cash outflows each period include interest and principal. The amount of interest goes on decreasing each period as it is calculated on the outstanding amount of bond/debenture.

The value of such a bond can be calculated as below:

$$V_d = \frac{R_1 + P_1}{(1+k_d)^1} + \frac{R_2 + P_2}{(1+k_d)^2} + \ldots \frac{R_n + P_n}{(1+k_d)^n}$$

Or, $$V_d = \sum_{t=1}^{n} \frac{R_t + P_t}{(1+k_d)^t}$$

where, V_d = Value of bond or debt

$R_1, R_2 \ldots$ = Annual interest (₹) in period 1, 2, ..., and so on.

$P_1, P_2 \ldots$ = Periodic payment of principal in period 1, 2, ... and so on.

K_d = Required rate of return

n = Number of years to maturity.

(ii) Bonds in Perpetuity:

Perpetuity bonds are the bonds which never mature or have infinitive maturity period. Value of such bonds is simply the discounted value of infinite streams of interest (cash) flows.

$$\text{Symbolically } V_d = \frac{R_1}{(1+k_d)^1} + \frac{R_2}{(1+k_d)^2} \cdots \frac{R_\infty}{(1+k_d)^\infty}$$

$$= \sum_{t=1}^{\infty} \frac{R_t}{(1+k_d)^t}$$

$$\text{Or, } V_d = \frac{R}{k_d}$$

where, V_d = Value or bond or debt

Kd = Required rate of return

R_1 = Interest at period 1

R_2 = Interest at period 2

R = Annual Interest (as interest is constant)

Relationship between the Required Rate of Return and Coupon Interest Rate:

We have observed earlier that the value of a bond or debenture is influenced by the coupon or fixed rate of interest payable on the bond and the investor's required or desired rate of return.

The relationship between the required rate of return and the coupon interest rate can, thus, be summarised as below:

(i) If the investor's required rate of return and the coupon interest rate are the same, the value of the debt (bond or debenture) shall be equal to its face value or paid-up value, as the case may be.

(ii) If the required rate of return is higher than the interest rate payable on bond or debenture, the value of the bond shall be lower than its face or paid-up value.

(iii) If the required rate of return is lower than the interest rate payable on bond or debenture, the value of the bond shall be higher than its face or paid-up value.

The above relationship can be explained with the help of following illustration.

Illustration:

Face value of a Debenture = Rs. 1,000

Annual Interest Rate of Debenture = 12%

Maturity Period = 5 years

What is the value of the debenture, if:

(a) Required rate of return is 12%

(b) Required rate of return is 15%

(c) Required rate of return is 10%

Solution:

$V_d = (R)\ (ADF_{i,n}) + (M)(DF_{i,n})$

$V_d = 120(3.605) + 1000\ (.567)$

Or, $V_d = 432.60 + 567$

= Rs. 999.60 or say Rs. 1,000.

(b) $V_d = 120\ (3.352) + 1,000\ (.497)$

= 402.24 + 497

= Rs. 899.24

(c) $V_d = 120\ (3.791) + 1,000\ (.621)$

= 453.92 + 621

= Rs. 1075.92 or say Rs. 1076

Bond Values with Semi-Annual Interest Rates:

We have so far determined the valuation of debentures considering the annual interest payments for the sake of simplicity. However, in most of the cases, interest is payable on semi-annual or half yearly basis.

To determine the value of such bonds/debentures, the bond valuation equation has to be modified on the following lines:

(1) The annual interest amount, R, should be divided by 2 to find out the amount of half-yearly interest.

(2) The maturity period, n, should be multiplied with 2 to get the number of half yearly periods.

(3) The required rate of return, K_d, should be divided 2 to get an appropriate discount rate applicable to half-yearly periods.

Thus, the basic bond valuation equation as modified would be:

$$V_d = \sum_{t=1}^{2n} \frac{R_{1/2}}{(1+k_{d/2})} + \frac{M_{2n}}{(1+k_{d/2})^{2n}}$$

$$\text{Or,} \quad V_d = \left(\frac{R}{2}\right)(ADF_{i/2,2n}) + M(DF_{i/2,2n})$$

OTCEI:

Over The Counter Exchange of India (OTCEI) can be defined as a stock exchange without a proper trading floor. All stock exchange have a specific place for trading their securities through counters. But the OTCEI is connected through a computer network and the transactions are taking place through computer operations. Thus, the development in information technology has given scope for starting this type of stock exchange.

OTCEI is recognized under the Securities Contract (Regulation) Act and so all the stocks listed in this exchange enjoy the same benefits as other listed securities enjoy

Need for starting OTCEI:

Many small companies in India are finding it difficult to raise adequate capital through Stock Exchanges as the conditions stipulated by them could not be fulfilled. The companies must have run for minimum three years and they must have earned profit and the minimum capital requirement for listing is also quite high. Hence by promoting a new Stock exchange with flexible conditions, the small and medium companies in India will be able to raise sufficient capital. Once these companies enlarge their resources, they can list themselves in the regular stock exchanges.

Promotion of OTCEI:

OTCEI has been incorporated under Section 25 of the Companies Act. As a result of which the word 'Limited' need not be used since it is promoted for a common cause of promoting the interest of small and medium companies. This privilege has been given to the company by the Central Government.

This company was promoted by a group of financial institutions owned by the Government of India, consisting of UTI, ICICI, IDBI, SBI Capital Market, IFCI, LIC, GIC; and Can Bank Financial Services (which is a subsidiary of Canara Bank).

Special features of OTCEI:

1. Use of Modern technology: Unlike other stock market, OTCEI does not have any special counters and it is an electronically operated stock exchange.

2. Restrictions for other stocks: Stocks and shares listed in other stock exchanges will not be listed in the OTCEI and similarly, stocks listed in OTCEI will not be listed in other stock exchanges.

3. Minimum issued capital requirements: Minimum issued equity capital should be Rs. 30 Lakhs, out of which minimum public offer should be Rs. 20 Lakhs.

4. Restrictions for large companies: No company with the issued equity share capital of more than Rs. 25 Crores is permitted for listing.

5. Base Capital requirement for members: Members will be required to maintain a minimum base capital of Rs. 4 Lakhs to trade on the permitted or on listed segment.

6. All India Network: The network of counters links OTCEI members, located in different parts of the country.

7. Satellite facility: The satellite required for OTCEI for its operations is jointly held with Press Trust of India (PTI) and hence, PTI-OTCEI scan displays the prices of OTCEI's scripts.

8. Computerization of transactions: Computers at each counter enable to dealers to enter various transactions or queries or quotes through a central OTCEI computer, using telecommunications links.

Due to the above features, OTCEI has an edge over other stock exchanges in the country.

Constituents of OTCEI

OTCEI commenced its operations in 1992. In OTCEI, we have the following parties taking part in various transactions. They are

- Companies
- Dealers
- Members
- Investors
- Custodian or Settlers
- Transfer agents
- OTCEI
- Government and
- SEBI.

How are transactions done in OTCEI?

The members of the OTCEI will invite companies to list on the exchange for raising capital. There are dealers who perform the dual role of a broker and market maker. A broker acts on behalf of buyer or seller, while a market maker has a responsibility to make available toe

particular share in the maker for transactions and to maintain reasonable price through supply and demand forces.

Example: The market makers will prevent abnormal fluctuations in the price of securities by regulating the supply and demand forces of securities in such a manner than acute scarcity or abundant supply of any security will be avoided. If 1000 shares are demanded among different categories so that the price will not fluctuate abnormally.

The custodian or a settler is one who validates the trading documents, stores the trading documents and also arranges for the clearing of daily transaction. It is the settler who gives the net monetary position of each member with regard to the market as a whole. The registrar and transfer agents ensure share transfers and allotments of shares and also inform the developments of various companies in the market.

What are the Listing requirements in OTCEI?

For any company to list its shares in OTCEI, it requires sponsorship by members of the OTCEI and it must also have two market makers. The OTCEI has also laid down rules regarding listing requirements.

- Once a company lists its securities in the market, it cannot delist its securities for a minimum period of 3 years.
- There are certain norms to be fulfilled by companies for sale of equity shares or any other securities under bought out deal (i.e., a company at its early stage may issue shares with an understanding that it will buy back after 5 years at the market price from out of its profits.)
- 20% of the issued capital should be retained by the promoters for a period of not less than 3 years.
- There should be two market makers as per the guidelines of OTCEI.

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UNIT -11

1. _____ has a definite and constant rupee value.

a). Certificates b). Saving accounts c). **Cash** d).Bonds

2. _____ is a facility of postponing a transaction till the next settlement day.

a). Balda financing b). Arbitrageursecurity c). Dealers d). Taraniwalla

3. The balda trade was banned in _____.

a). March 1994 b). March 1995 c). Feb 1995 d). Feb 1996

4. _____ is an option to sell.

a). Put b). Call c). Future d). Spread

5. _____ is an option to purchase.

a). Put **b). Call** c). Future d). Spread

6. The players in the new issue market are _____.

a). Merchant Bankers b). Registrars c). Merchant Bankers & Registrars d). organizations

7. _____ collects information on subscriptions.

a). Registrars b). Underwriters & Brokers c). Collecting bankers d). Advertising agencies

8. The work begins before an issue is _____ actually floated in the market.

a). Distribution b). Underwriting **c). Origination** d). Subscription

9. _____ is a kind of guarantee undertaken by an institution.

a). Distribution **b). Underwriting** c). Origination d). Subscription

10. When the public fails to subscribe the shares _____ to make a promise to purchase the shares

a). Brokers b). Bankers c). **Underwriters** d). Agencies

11. The delivery price is the spot price of _____.

a). Forward market b). **Futures market** c). Options market d). Spread

12. _____ shares are also called as ordinary shares.

a). Preference shares b). **Equity shares** c). Debentures d). Share certificates

13. The speculator sells the security and then buys it at a higher price through another broker is _____.

a). Wash sales b). Cornering c). Buying a call d). Writing options

14. _____ involves the simultaneous purchase and sale of different options of the same security.

a). Spread b). Call c). Option d). Market

15. _____ emphasis the protection of prices and dividends.

a). Security analysis b). Portfolio analysis c). Fundamental analysis d). Securities

PART - B

1. Discuss the methods of floating shares in new issue market?

2. Explain the Mechanics of Security Trading in Stock Exchange?

3. Elaborate the different types of stock exchange functioning in India.

4. Discuss the features and advantages of NSE.

5. What is the role of SEBI in regulating the New issue market / primary market?

6. Write short note on i. BSE, ii. NSE, iii. OTCEI.

7. Discuss the various methods of floating a new shares.

8 Trace the growth and development of the stock market in India.

9. Explain the relationship between New Issue Market and Stock Exchange?

10. Name some of well known national stock indices. How is the BSE Sensitivity Index constructed?

KARPAGAM ACADEMY OF HIGHER EDUCATION						
(DEEMED TO BE UNIVERSITY)						
(ESTABLISHED UNDER SECTION 3 OF UGC ACT 1956)						
DEPARTMENT OF COMMERCE						
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT						
UNIT II						
S.NO.	**QUESTION**	**OPTION 1**	**OPTION 2**	**OPTION 3**	**OPTION 4**	**ANSWER**
1	Bombay stock exchange was recognised on a permanent basis in the year	1956	1992	1958	1959	1992
2	OTCEI is	a national stock exchange	a regional stock exchange	primary market	a government undertaking	a national stock exchange
3	Members of OTCEI are	corporates only	individual only	corporates as well as individual	government	corporates only
4	Consumer protection fund is set up	to protect the investors against price fluctuations	to protect the broket in case of non-payment of money by	to provide in surance to investors in case of default by the members	to protect the member and the investor	to provide in surance to investors in case of default by the members
5	At par menas	shares issued at premium	shares issued at discount	shares issued at face value	actual value	shares issued at face value
6	Right issues are offerred to	the existing shareholders	the promoters of the company	the public at large	private company	the existing shareholders

7	The person who is appointed to assist the stock broker is called	remisters	authorised clerk	commission brokers	tarawaniwala	authorised clerk
8	Mr.X buys 100 shares of Ponds India Ltd., from Mr,Y. this is a	primary market activity	secondary market activity	money market activity	SEBI	secondary market activity
9	an order for purchase of securities at a fixed price is known as	at best order	limit order	discretionary order	open order	limit order
10	NSE was set up	1956	1992	1986	1987	1992
11	NSE is a fully automated	screen based	brokerage	marketing	transfering	screen based
12	NSE trading ensures total _____of the transaction	identity	grivences	transparency	security	transparency
13	The identity of the NSE trading members is kept	secrecy	transparency	wide	circulating	secrecy
14	NSE aims at	short term settlement	long term settlement	Both a&b	medium term	short term settlement

15	Scrip dividend is in the form of	cash	a promisory note with interest	stock	debt	a promisory note with interest
16	_____Value of a share means the value of assets available per share	par	intrinsic	market value	yield	intrinsic
17	_____Shares regarded as a hybrid stock between a bond and a common stock	prefernce	Equity Share	Debentures	yield	Equity Share
18	The call option price is higher when	the option period is longer and the striking price is lower	the option period is longer	the striking price is equal to striking price	ther is low premium	the striking price is equal to striking price
19	When the writer sells the option without the stock, it is called	naked option	call option	put option	hedging	naked option
20	Sensex is the weighted average of the prices of	50 shares	30 shares	20 shares	10 shares	30 shares
21	The premium of the call option is directly related to	stock price	market price	current price	standard price	stock price
22	The option buyer gains in the	stock market	primary market	secondary market	bearish market	secondary market

23	The main function entrusted with SEBI is	capital formation	regulating the business stock exchanges and any other	issue of securities	giving fiancial assistance to stock exchange	regulating the business stock exchanges and any other securities market
24	The carry forward system mainly used by the speculative brokers and large traders is known as	Badla trade	insider trading	Delisting	book building	Badla trade
25	OTCEI stands	over the counter exchange of india	over the customer exchange of india	on trade counter exchange of india		over the counter exchange of india
26	OTCEI was set up for	big concern	midium concern	small and medium size concern	entrepreneur	small and medium size concern
27	Deferred share are also known as ----------	right shares	new shares	secondary shares	founders shares	founders shares
28	An equity share is a	fixed income bearing security	variable income bearing security	hybrid security	average	variable income bearing security
29	Ex-dividend on shares refers to	purchase price includes dividend	purchase price does not include dividend	purchase price includes interest and dividend	convertible price	purchase price does not include dividend
30	SEBI was set up in the year	1966	1697	1992	1988	1992

31	Composite issue means	Right cum Public issue	grievance cell	buy back shares	ploughing	Right cum Public issue
32	only he can enter into the floor of the stock exchange and transact business in listed securities	owners	businessmen	executives	members	members
33	The nerve centre of the monetary system of the country is	commercial bank	RBI	Corporate Banks	FinancialInstitution	RBI
34	The following are the convertible securities	preference share	Equity Share	Debentures	Public deposit	preference share
35	A--------- is an option to buy certain securities at a fixed price on a future date	call option	put option	the jobber	trader	a call option
36	new companies rarely offer shares at a	Premium	Discount	Both a&b	Par	Both a&b
37	When the market is moving upwards continuously, of short duration. This is referred as	bullrun	bearphase	correction	movements	bullrun
38	some organisation issue bonds of a	short term	long term	medium	veryshort	short term

39	the bond indenture specifically gives the _____date of the bond	beginning	end	maturity	middle	maturity
40	A ---------- means giving previlege to certain investors in subscription of securities	call option	put option	send option	right issue	right issue
41	The debentures which are repayable after a certain period are called ----------	convertible debentures	preferred debentures	ordinary debentures	redeemable debentures	redeemable debentures
42	SEBI is	an apex body	a security market	an intermediary in stock exchange	regulate	an apex body
43	A ---------- means a document which either creates or acknowledge a debt	share	bond	Debentures	debt	debentures
44	Primary market is	an issue marketability outstanding securities	a new issue market	a profitable market	security	a new issue market
45	State which one of the following is the method of floating new issue	origination	underwriting	placement	liquidity	placement
46	the _____ aquire bonds and automatically accept the indenture	shareholder	investor	bondholder speculator	broker	bondholder speculator

47	the activities of _____have been divided into three points. i.e origination, underwriting and distribution	New issue market	stock exchange	secondary market	SEBI	stock exchange
48	It is transaction generally made by the bear speculator whereby the speculator acquire a right to sell is known as	call option	put option	the jobber	trader	put option
49	Investment in debentures is known as ---------- securities	debtorship	creditorship	assets	liabilities	creditorship
50	_____ day is also called as settlement day	First day	SecondDay	Fifth day	Sixth day	SecondDay
51	The Stock exchanges in india are regulated by the securities contract act	Feb 20 1955	Feb 20 1957	Feb 20 1958	Feb 20 1960	Feb 20 1957
52	A doctorate of stockexchange was setup in	1956	1957	1958	1969	1969
53	Capital issues control act was passed in	1940	1945	1947	1957	1947
54	The most popular method for floating shares in new issue market is____	Prospectus	Offer for sale	Placement	Rights issue	Prospectus

55	The financiar in the stock exchange is called	Budiwalla	Tarniwalla	Floorbroker	Oddlot dealer	Budiwalla
56	The ---------- refers to all the facilities and the institutioal arrangements for the borrowing and the loaning of longterm funds	money market	capital market	bullion market	securities market	capital market
57	Stock exchange	helps in the fixation of stock prices	ensures safe and fair dealings	induces good performance of the company	performs all the above functions	performs all the above functions
58	The advice adopted to make profit out of the differences in prices of a security in two different markets is called	arbitrage	listing	jobber	secondary market	arbitrage
59	The market where existing securities are bought and sold	secondary market	primary market	money market activity	all of the above	secondary market
60	Who is an independent owner?	taraniwala	jobber	member	client	jobber

UNIT -11

1. _____ has a definite and constant rupee value.

a). Certificates b). Saving accounts c). **Cash** d).Bonds

2. _____ is a facility of postponing a transaction till the next settlement day.

a). Balda financing b). Arbitrageursecurity c). Dealers d). Taraniwalla

3. The balda trade was banned in _____.

a). March 1994 b). March 1995 c). Feb 1995 d). Feb 1996

4. _____ is an option to sell.

a). Put b). Call c). Future d). Spread

5. _____ is an option to purchase.

a). Put **b). Call** c). Future d). Spread

6. The players in the new issue market are _____.

a). Merchant Bankers b). Registrars c). Merchant Bankers & Registrars d). organizations

7. _____ collects information on subscriptions.

a). Registrars b). Underwriters & Brokers c). Collecting bankers d). Advertising agencies

8. The work begins before an issue is _____ actually floated in the market.

a). Distribution b). Underwriting **c). Origination** d). Subscription

9. _____ is a kind of guarantee undertaken by an institution.

a). Distribution **b). Underwriting** c). Origination d). Subscription

10. When the public fails to subscribe the shares _____ to make a promise to purchase the shares

a). Brokers b). Bankers c). **Underwriters** d). Agencies

11. The delivery price is the spot price of _____.

a). Forward market b). **Futures market** c). Options market d). Spread

12. _____ shares are also called as ordinary shares.

a). Preference shares b). **Equity shares** c). Debentures d). Share certificates

13. The speculator sells the security and then buys it at a higher price through another broker is _____.

a). Wash sales b). Cornering c). Buying a call d). Writing options

14. _____ involves the simultaneous purchase and sale of different options of the same security.

a). Spread b). Call c). Option d). Market

15. _____ emphasis the protection of prices and dividends.

a). Security analysis b). Portfolio analysis c). Fundamental analysis d). Securities

PART - B

1. Discuss the methods of floating shares in new issue market?

2. Explain the Mechanics of Security Trading in Stock Exchange?

3. Elaborate the different types of stock exchange functioning in India.

4. Discuss the features and advantages of NSE.

5. What is the role of SEBI in regulating the New issue market / primary market?

6. Write short note on i. BSE, ii. NSE, iii. OTCEI.

7. Discuss the various methods of floating a new shares.

8 Trace the growth and development of the stock market in India.

9. Explain the relationship between New Issue Market and Stock Exchange?

10. Name some of well known national stock indices. How is the BSE Sensitivity Index constructed?

UNIT III

Fundamental Analysis - Economic analysis and Industry analysis**:** Asset Pricing Theories (APT)s s- Option Pricing Theory – Economic Analysis –Economic Forecasting – Stock Investment Decision - Techniques Company Analysis – Industry Analysis

FUNDAMENTAL ANALYSIS

Fundamental analysis is the foundation of solid investing. It helps you determine the underlying health of a company by examining the business' core numbers: its income statements, its earnings releases, its balance sheet, and other indicators of economic health.

Fundamental analysis is a method of evaluating a security in an attempt to measure its intrinsic value, by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysts study anything that can affect the security's value, including macroeconomic factors such as the overall economy and industry conditions, and microeconomic factors such as financial conditions and company management. The end goal of fundamental analysis is to produce a quantitative value that an investor can compare with a security's current price, thus indicating whether the security is undervalued or overvalued.

The Basics of Fundamental Analysis

Fundamental analysis uses real, public data in the evaluation a security's value. Although most analysts use fundamental analysis to value stocks, this method of valuation can be used for just about any type of security. For example, an investor can perform fundamental analysis on a bond's value by looking at economic factors such as interest rates and the overall state of the economy. He can also look at information about the bond issuer, such as potential changes in credit ratings.

For stocks and equity instruments, this method uses revenues, earnings, future growth, return on equity, profit margins and other data to determine a company's underlying value and potential for future growth. In terms of stocks, fundamental analysis focuses on the financial statements of the company being evaluated. One of the most famous and successful

fundamental analysts is the so-called "Oracle of Omaha", Warren Buffett, who is well known for successfully employing fundamental analysis to pick securities. His abilities have turned him into a billionaire.

ECONOMIC ANALYSIS

A systematic approach to determining the optimum use of scarce resources, involving comparison of two or more alternatives in achieving a specific objective under the given assumptions and constraints.

Economic analysis takes into account the opportunity costs of resources employed and attempts to measure in monetary terms the private and social costs and benefits of a project to the community or economy.

DIFFERENCE BETWEEN FUNDAMENTAL ANALYSIS AND ECONOMIC ANALYSIS

These terms refer to two different stock-picking methodologies used for researching and forecasting the future growth trends of stocks. Like any investment strategy or philosophy, both have their advocates and adversaries. Here are the defining principles of each of these methods of stock analysis:

Fundamental analysis is a method of evaluating securities by attempting to measure the intrinsic value of a stock. Fundamental analysts study everything from the overall economy and industry conditions to the financial condition and management of companies.

Technical analysis is the evaluation of securities by means of studying statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value but instead use stock charts to identify patterns and trends that may suggest what a stock will do in the future.

In the world of stock analysis, fundamental and technical analysis are on completely opposite sides of the spectrum. Earnings, expenses, assets and liabilities are all important characteristics to fundamental analysts, whereas technical analysts could not care less about

these numbers. Which strategy works best is always debated, and many volumes of textbooks have been written on both of these methods. So, do some reading and decide for yourself which strategy works best with your investment philosophy.

Asset Pricing Theories:

The asset pricing models that this section of the study guide treats are born of modern portfolio theory. Though the test booklets during your exam will offer the formulas for reference, knowledge of their construction is important to gain a better understanding of them and the significance of their input into the portfolio management process.

The Capital Asset Pricing Model (CAPM)

A cornerstone of modern portfolio theory, the capital asset pricing model attributes stock returns to the individual security's volatility, relative to the market and the volatility of the market itself. Investors have similar expectations concerning the risk/return relationship of risky assets, they can borrow and lend at the risk-free rate and transaction costs and taxes equal zero. The model could determine the portfolio on the efficient frontier that is the market portfolio.

$E(r)=R_f + \beta(R_m- R_f)$

Where, E(r) is the expected return; β is the volatility of the market and R_m is the return of the market.

The Arbitrage Pricing Theory (APT)

In contrast to the CAPM, which explains stock returns as resulting from two variables, APT is a multi-factor model, positing that stock returns are attributable to several factors, some of which are systematic, others industry specific and other still unique to a particular company.

$R=a_0 + b_1F_1+ b_2F_2...+b_nF_n + e$

Where, R=the security\'s return; a_0=the expected return; b_n=the sensitivity of the security to factor F_n=factors affecting the security (GDP, inflation.

Economic Analysis:

The study of forces that determine the distribution of scarce resources. Economic analysis provides insight into how marketsoperate, and offers methods for attempting to predict future market behavior in response to events, trends, and cycles. Economic analysis is also used by governments to determine tax rates and evaluate the financial health of the nation or state.

Use economic analysis in a sentence

" After our **economic analysis** was over, we decided to change up our strategy a bit and try something new, that we had not done before. **"**

" The economic analysis of the current climate in the U.S. fiscal policy reveals that there is definitely a movement toward increased debt over savings. "

Economic analysis is marginal analysis. In marginal analysis, one examines the consequences of adding to or subtracting from the current state of affairs. Consider, for example, an employer's decision to hire a new worker. The employer must determine the **marginal benefit** of hiring the additional worker as well as the **marginal cost**. The marginal benefit of hiring the worker is the value of the additional goods or services that the new worker could produce. The marginal cost is the additional wages the employer will have to pay the new worker. An economic analysis of the decision to hire the new worker involves weighing the marginal benefits against the marginal costs. If the marginal benefits are greater than the marginal costs, then it makes sense for the employer to hire the worker. If not, then the new worker should not be hired.

In performing economic analysis, it is sometimes difficult to separate out the effects of different factors on decisions or outcomes. For example, the decision of students to attend college may depend on a number of factors, including income, the tuition charged, or the market value of a college degree. The effect of an increase in tuition on college enrollment may not be immediately apparent because student incomes or the market value of a college degree may be changing along with the increase in tuition. To conduct a proper economic analysis of the effect of a rise in tuition on college enrollment requires that all other factors affecting the decision to attend

college be held constant. The assumption of *ceteris paribus*, which is Latin for "all else held constant," is frequently invoked in economic analysis. The phrase *ceteris paribus* conveys the assumption that only one of many factors is being examined. For example, if an increase in tuition led to a decrease in college enrollment taking into account all other factors such as changes in student incomes or in the market value of a college degree, one could summarize this finding with the statement: an increase in tuition reduces college enrollment, *ceteris paribus*.

Efficient production and the production possibilities frontier. In addition to the *ceteris paribus* assumption, economic analysis is often carried out under the assumption of **efficient production**. According to the efficient production assumption, the economy is always using its resources and technology to produce the *maximum* number of goods possible.

The efficient production assumption is frequently associated with the **production possibilities frontier (PPF)**, a graphical device that is used for economic analysis of production decisions. The PPF measures the quantity of two goods that an economy is capable of producing with its currently available resources and technology. While economies typically produce more than two goods, the graphical analysis of the PPF is made easier by restricting the production possibilities of the economy to just two goods.

Figure depicts a PPF for an economy that is producing the goods *X*and *Y*. The PPF is the curved line through points A, B, C, D, E, F, and G. It represents the maximum possible quantities of goods *X* and *Y* that the economy is capable of producing and therefore symbolizes the efficient production assumption. The quantity of good *X* produced is measured on the horizontal axis, while the quantity of good *Y*produced is measured on the vertical axis. At point A on the PPF, the economy is using all of its resources to produce 16 units of good *Y*and 0 units of good *X*. Moving down along the PPF to the right of point A, fewer units of *Y* are produced, and more and more units of *X*are produced. At point B, the economy is producing 15 units of *Y* and 1 unit of *X*; at point C, the economy is producing 13 units of *Y* and 2 units of *X*, and so on. When the economy is producing at point **G**, it is putting all of its resources into production of good *X*—6 units of good *X* and 0 units of good *Y*. Points that lie in the interior of the curved **PPF**, such as

point I, represent quantities of goods *X* and *Y* that are less than the maximum quantities the economy is capable of producing and are therefore considered **inefficient production points**. Under the efficient production assumption, production quantities such as point I can be excluded from any economic analysis. Because the **PPF** curve represents the maximum possible quantities of goods *X* and *Y* that the economy is capable of producing, points that lie beyond the **PPF**, such as point H, represent **unattainable production points** and can also be ruled out.

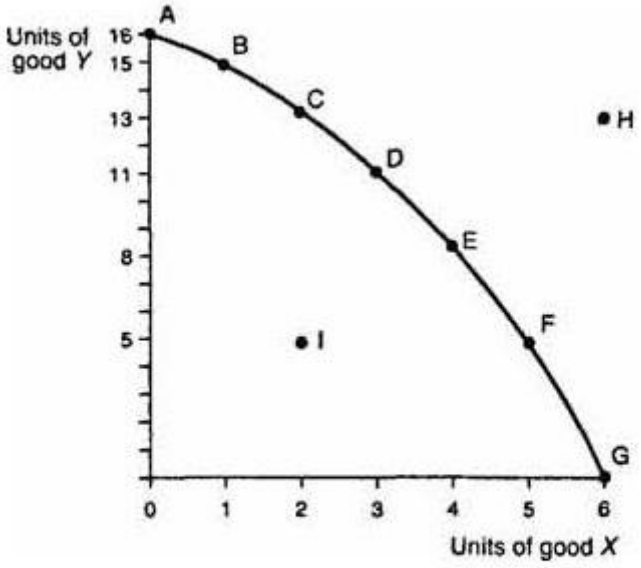


Figure 1
A production possibilities frontier

The bowed-out, concave shape of the **PPF** is due to the presumption that the economy's resources are not equally well suited to the production of both goods *X* and *Y*. For example, some resources may not be very useful in producing good *X* but are very useful in producing good *Y*. If the economy were initially using all of its resources to produce 6 units of *X*—point G on the **PPF**—but then decided to produce 1 less unit of good *X*—5 units of *X*—some of the resources that are better suited to producing good *Y* would be released with the result that 5 units

of good *Y* could now be produced—point F on the **PPF**. If the economy decided to produce only 4 units of good *X*, then even more resources would be released, and 3 more units of good *Y*, for a total of 8 units of good *Y*, could now be produced—point E on the **PPF**.

A special case arises when the resources used to produce good *Y* are *equally well suited* for the production of good *X*. In this case, the PPF would not be curved outward. Instead, the PPF would simply be a straight line connecting the points where the economy is using all of its resources to produce good *Y* (point A) and where the economy is using all of its resources to produce good *X* (point **G**).

It is important to note that the **PPF** drawn in Figure depicts production possibilities for **fixed resources** and **fixed technology**. If the amount of resources available to produce goods *X* and *Y* were to increase as a result of economic growth, then the **PPF** curve would shift outward, to the right, implying that the economy could produce greater quantities of both goods *X* and *Y*. The same holds true when improvements in technology allow for more efficient use of available resources; the **PPF** will shift outward, to the right. Production points such as point H may then become attainable.

Opportunity cost. In addition to displaying the economy's efficient production possibilities, the **PPF** is also used to illustrate an important concept in economic analysis called **opportunity cost**. The opportunity cost of a decision or choice that one makes is the value of the **highest valued alternative** that could have been chosen but was instead forgone. For example, suppose that one is faced with several ways of spending an evening at home. The choice made is to study economics (perhaps because there is an economics test tomorrow). The opportunity cost of this choice is the value of the highest valued alternative to the time spent studying economics. While there may be many alternatives to studying economics—watching television, reading a novel, talking on the telephone—there is only one alternative that has highest value. In this example, the alternative with highest value depends on one's own preferences. The value of the highest valued alternative—say, for example, reading a novel—would be considered the opportunity cost of studying economics.

The concept of opportunity cost also applies to production decisions. Returning to the **PPF** in Figure , suppose that the economy is initially at point C, producing 2 units of good *X* and 13 units of good *Y*. Consider what happens when the economy desires another unit of good *X* and so changes its production from point C on the PPF to point D. The opportunity cost of the additional unit of good *X* is the 2 units of good *Y* (13 units of *Y* - 11 units of *Y*) that are forgone in moving from point C to point D. In the case of the **PPF**, where there are only two goods, the highest valued alternative to good *X* is good *Y*and vice versa.

Now, suppose that the economy desires yet another unit of good *X*and so changes its production from point D on the **PPF** to point E. The opportunity cost of this additional unit of good *X* is now 3 units of good *Y* (11 units of *Y* - 8 units of *Y*). In this example, the opportunity cost of producing 1 more unit of good *X* increases as more of good *X*is produced. The reason is that some of the resources used to produce good *Y* are not as well suited to producing good *X*. (You should recall that this is the same reason for the bowed-out, concave shape of the PPF.) Consequently, as more and more of the economy's resources are devoted to producing good *X*, the opportunity cost of good *X*, as measured in units of good *Y* forgone, will be increasing. This phenomenon is referred to as the **law of increasing opportunity cost**.

Common pitfalls in economic analysis. There are two "pitfalls" that should be avoided when conducting economic analysis: the **fallacy of composition** and the **false-cause fallacy**. The fallacy of composition is the belief that if one individual or firm benefits from some action, all individuals or all firms will benefit from the same action. While this may in fact be the case, it is *not necessarily so*. For example, suppose an airline decides to lower the fares it charges on all of its routes. The airline expects to benefit from the fare reduction because it believes the lower fares will attract customers away from other airlines. If, however, the other airlines follow suit and lower their airfares by the same amount, then it is not necessarily true that all airlines will be better off; while more people may choose to fly, each airline will receive less money per passenger, and each airline's market share is unlikely to change. Hence, the profits of all airlines could fall.

The false-cause fallacy often arises in economic analysis of two correlated actions or events. When one observes that two actions or events seem to be correlated, it is often tempting to conclude that one event has caused the other. But by doing so, one may be committing the false-cause fallacy, which is the simple fact that *correlation does not imply causation*. For example, suppose that new-car prices have steadily increased over some period of time and that new-car sales have also increased over this same period. One might then conclude that an increase in the price of new cars causes an increase in new-car sales. This false conclusion is an example of the false-cause fallacy; new-car prices and new-car sales may be positively correlated, but that correlation does not imply that there is any causation between the two. In order to explain why both events are taking place simultaneously, one may have to look at other factors—for example, rising consumer incomes, inflation, or rising producer costs.

Fundamental analysis is the examination of the underlying forces that affect the well being of the economy, industry groups, and companies. As with most analysis, the goal is to derive a forecast and profit from future price movements. At the company level, fundamental analysis may involve examination of financial data, management, business concept and competition. At the industry level, there might be an examination of supply and demand forces for the products offered. For the national economy, fundamental analysis might focus on economic data to assess the present and future growth of the economy. To forecast future stock prices, fundamental analysis combines economic, industry, and company analysis to derive a stock's current fair value and forecast future value. If fair value is not equal to the current stock price, fundamental analysts believe that the stock is either over or under valued and the market price will ultimately gravitate towards fair value. Fundamentalists do not heed the advice of the random walkers and believe that markets are weak-form efficient. By believing that prices do not accurately reflect all available information, fundamental analysts look to capitalize on perceived price discrepancies.

General Steps to Fundamental Evaluation

Even though there is no one clear-cut method, a breakdown is presented below in the order an investor might proceed. This method employs a top-down approach that starts with the overall

economy and then works down from industry groups to specific companies. As part of the analysis process, it is important to remember that all information is relative. Industry groups are compared against other industry groups and companies against other companies. Usually, companies are compared with others in the same group. For example, a telecom operator (Verizon) would be compared to another telecom operator (SBC Corp), not to an oil company (ChevronTexaco).

Economic Forecast

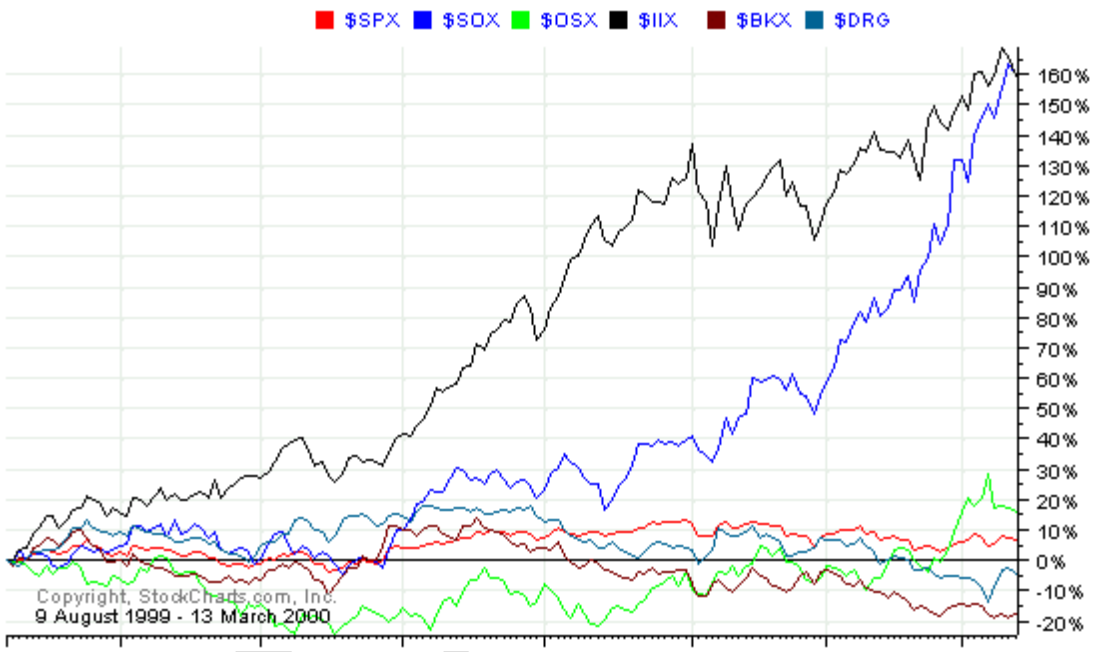
First and foremost in a top-down approach would be an overall evaluation of the general economy. The economy is like the tide and the various industry groups and individual companies are like boats. When the economy expands, most industry groups and companies benefit and grow. When the economy declines, most sectors and companies usually suffer. Many economists link economic expansion and contraction to the level of interest rates. Interest rates are seen as a leading indicator for the stock market as well. Below is a chart of the S&P 500 and the yield on the 10-year note over the last 30 years. Although not exact, a correlation between stock prices and interest rates can be seen. Once a scenario for the overall economy has been developed, an investor can break down the economy into its various industry groups.

Group Selection

If the prognosis is for an expanding economy, then certain groups are likely to benefit more than others. An investor can narrow the field to those groups that are best suited to benefit from the current or future economic environment. If most companies are expected to benefit from an expansion, then risk in equities would be relatively low and an aggressive growth-oriented strategy might be advisable. A growth strategy might involve the purchase of technology, biotech, semiconductor and cyclical stocks. If the economy is forecast to contract, an investor may opt for a more conservative strategy and seek out stable income-oriented companies. A

defensive strategy might involve the purchase of consumer staples, utilities, and energy-related stocks.

To assess an industry group's potential, an investor would want to consider the overall growth rate, market size, and importance to the economy. While the individual company is still important, its industry group is likely to exert just as much, or more, influence on the stock price. When stocks move, they usually move as groups; there are very few lone guns out there. Many times it is more important to be in the right industry than in the right stock! The chart below shows that relative performance of 5 sectors over a 7-month timeframe. As the chart illustrates, being in the right sector can make all the difference.



Narrow Within the Group

Once the industry group is chosen, an investor would need to narrow the list of companies before proceeding to a more detailed analysis. Investors are usually interested in finding the leaders and the innovators within a group. The first task is to identify the current business and competitive environment within a group as well as the future trends. How do the companies rank according

to market share, product position, and competitive advantage? Who is the current leader and how will changes within the sector affect the current balance of power? What are the barriers to entry? **Success depends on an edge, be it marketing, technology, market share or innovation.** A comparative analysis of the competition within a sector will help identify those companies with an edge, and those most likely to keep it.

Company Analysis

With a shortlist of companies, an investor might analyze the resources and capabilities within each company to identify those companies that are capable of creating and maintaining a competitive advantage. The analysis could focus on selecting companies with a sensible business plan, solid management, and sound financials.

Business Plan

The business plan, model or concept forms the bedrock upon which all else is built. If the plan, model or concepts stink, there is little hope for the business. For a new business, the questions may be these: Does its business make sense? Is it feasible? Is there a market? Can a profit be made? For an established business, the questions may be: Is the company's direction clearly defined? Is the company a leader in the market? Can the company maintain leadership?

Management

In order to execute a business plan, a company requires top-quality management. Investors might look at management to assess their capabilities, strengths and weaknesses. Even the best-laid plans in the most dynamic industries can go to waste with bad management (AMD in semiconductors). Alternatively, even strong management can make for extraordinary success in a mature industry (Alcoa in aluminum). Some of the questions to ask might include: How talented is the management team? Do they have a track record? How long have they worked together? Can management deliver on its promises? If management is a problem, it is sometimes best to move on.

Financial Analysis

The final step to this analysis process would be to take apart the financial statements and come up with a means of valuation. Below is a list of potential inputs into a financial analysis.

Accounts Payable	Good Will
Accounts Receivable	Gross Profit Margin
Acid Ratio	Growth
Amortization	Industry
Assets - Current	Interest Cover
Assets - Fixed	International
Book Value	Investment
Brand	Liabilities - Current
Business Cycle	Liabilities - Long-term
Business Idea	Management
Business Model	Market Growth
Business Plan	Market Share
Capital Expenses	Net Profit Margin
Cash Flow	Pageview Growth
Cash on hand	Pageviews
Current Ratio	Patents
Customer Relationships	Price/Book Value
Days Payable	Price/Earnings
Days Receivable	PEG
Debt	Price/Sales
Debt Structure	Product
Debt:Equity Ratio	Product Placement
Depreciation	Regulations
Derivatives-Hedging	R & D

Discounted Cash Flow	Revenues
Dividend	Sector
Dividend Cover	Stock Options
Earnings	Strategy
EBITDA	Subscriber Growth
Economic Growth	Subscribers
Equity	Supplier Relationships
Equity Risk Premium	Taxes
Expenses	Trademarks
	Weighted Average Cost of Capital

The list can seem quite long and intimidating. However, after a while, an investor will learn what works best and develop a set of preferred analysis techniques. There are many different valuation metrics and much depends on the industry and stage of the economic cycle. A complete financial model can be built to forecast future revenues, expenses and profits or an investor can rely on the forecast of other analysts and apply various multiples to arrive at a valuation. Some of the more popular ratios are found by dividing the stock price by a key value driver.

Ratio	**Company Type**
Price/Book Value	Oil
Price/Earnings	Retail
Price/Earnings/Growth	Networking
Price/Sales	B2B
Price/Subscribers	ISP or cable company
Price/Lines	Telecom
Price/Page views	Web site Biotech
Price/Promises	

This methodology assumes that a company will sell at a specific multiple of its earnings, revenues or growth. An investor may rank companies based on these valuation ratios. Those at the high end may be considered overvalued, while those at the low end may constitute relatively good value.

Putting it All Together

After all is said and done, an investor will be left with a handful of companies that stand out from the pack. Over the course of the analysis process, an understanding will develop of which companies stand out as potential leaders and innovators. In addition, other companies would be considered laggards and unpredictable. The final step of the fundamental analysis process is to synthesize all data, analysis, and understanding into actual picks.

Strengths of Fundamental Analysis

Long-term Trends

Fundamental analysis is good for long-term investments based on very long-term trends. The ability to identify and predict long-term economic, demographic, technological or consumer trends can benefit patient investors who pick the right industry groups or companies.

Value Spotting

Sound fundamental analysis will help identify companies that represent a good value. Some of the most legendary investors think long-term and value. Graham and Dodd, Warren Buffett and John Neff are seen as the champions of value investing. Fundamental analysis can help uncover companies with valuable assets, a strong balance sheet, stable earnings, and staying power.

Business Acumen

One of the most obvious, but less tangible, rewards of fundamental analysis is the development of a thorough understanding of the business. After such painstaking research and analysis, an investor will be familiar with the key revenue and profit drivers behind a company. Earnings and earnings expectations can be potent drivers of equity prices. Even some technicians will agree to that. A good understanding can help investors avoid companies that are prone to shortfalls and identify those that continue to deliver. In addition to understanding the business, fundamental analysis allows investors to develop an understanding of the key value drivers and companies within an industry. A stock's price is heavily influenced by its industry group. By studying these groups, investors can better position themselves to identify opportunities that are high-risk (tech), low-risk (utilities), growth oriented (computer), value driven (oil), non-cyclical (consumer staples), cyclical (transportation) or income-oriented (high yield).

Knowing Who's Who

Stocks move as a group. By understanding a company's business, investors can better position themselves to categorize stocks within their relevant industry group. Business can change rapidly and with it the revenue mix of a company. This happened to many of the pure Internet retailers, which were not really Internet companies, but plain retailers. Knowing a company's business and being able to place it in a group can make a huge difference in relative valuations.

Weaknesses of Fundamental Analysis

Time Constraints

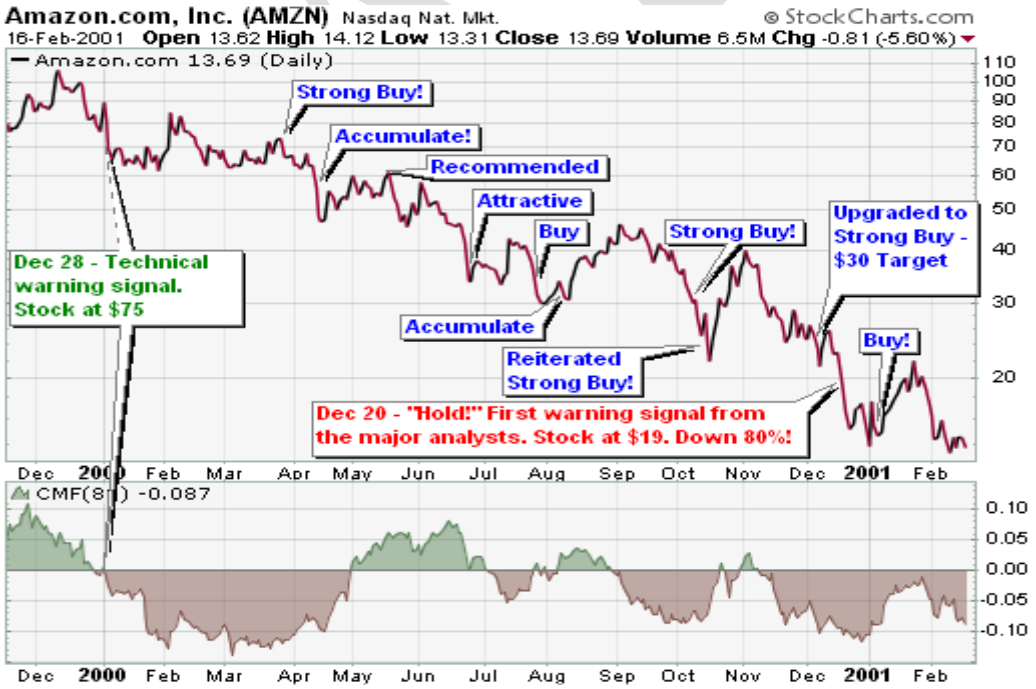
Fundamental analysis may offer excellent insights, but it can be extraordinarily time-consuming. Time-consuming models often produce valuations that are contradictory to the current price prevailing on Wall Street. When this happens, the analyst basically claims that the whole street has got it wrong. This is not to say that there are not misunderstood companies out there, but it is quite brash to imply that the market price, and hence Wall Street, is wrong.

Industry/Company Specific

Valuation techniques vary depending on the industry group and specifics of each company. For this reason, a different technique and model is required for different industries and different companies. This can get quite time-consuming, which can limit the amount of research that can be performed. A subscription-based model may work great for an Internet Service Provider (ISP), but is not likely to be the best model to value an oil company.

Subjectivity

Fair value is based on assumptions. Any changes to growth or multiplier assumptions can greatly alter the ultimate valuation. Fundamental analysts are generally aware of this and use sensitivity analysis to present a base-case valuation, an average-case valuation, and a worst-case valuation. However, even on a worst-case valuation, most models are almost always bullish, the only question is how much so. The chart below shows how stubbornly bullish many fundamental analysts can be.



Analyst Bias

The majority of the information that goes into the analysis comes from the company itself. Companies employ investor relations managers specifically to handle the analyst community and release information. As Mark Twain said, "there are lies, damn lies, and statistics." When it comes to massaging the data or spinning the announcement, CFOs and investor relations managers are professionals. Only buy-side analysts tend to venture past the company statistics. Buy-side analysts work for mutual funds and money managers. They read the reports written by the sell-side analysts who work for the big brokers (CIBC, Merrill Lynch, Robertson Stephens, CS First Boston, Paine Weber, DLJ to name a few). These brokers are also involved in underwriting and investment banking for the companies. Even though there are restrictions in place to prevent a conflict of interest, brokers have an ongoing relationship with the company under analysis. When reading these reports, it is important to take into consideration any biases a sell-side analyst may have. The buy-side analyst, on the other hand, is analyzing the company purely from an investment standpoint for a portfolio manager. If there is a relationship with the company, it is usually on different terms. In some cases, this may be as a large shareholder.

Definition of Fair Value

When market valuations extend beyond historical norms, there is pressure to adjust growth and multiplier assumptions to compensate. If Wall Street values a stock at 50 times earnings and the current assumption is 30 times, the analyst would be pressured to revise this assumption higher. There is an old Wall Street adage: the value of any asset (stock) is only what someone is willing to pay for it (current price). Just as stock prices fluctuate, so too do growth and multiplier assumptions. Are we to believe Wall Street and the stock price or the analyst and market assumptions?

It used to be that free cash flow or earnings were used with a multiplier to arrive at a fair value. In 1999, the S&P 500 typically sold for 28 times free cash flow. However, because so many companies were and are losing money, it has become popular to value a business as a multiple of

its revenues. This would seem to be OK, except that the multiple was higher than the PE of many stocks! Some companies were considered bargains at 30 times revenues.

Fundamental analysis can be valuable, but it should be approached with caution. If you are reading research written by a sell-side analyst, it is important to be familiar with the analyst behind the report. We all have personal biases, and every analyst has some sort of bias. There is nothing wrong with this, and the research can still be of great value. Learn what the ratings mean and the track record of an analyst before jumping off the deep end. Corporate statements and press releases offer good information, but they should be read with a healthy degree of skepticism to separate the facts from the spin. Press releases don't happen by accident; they are an important PR tool for companies. **Investors should become skilled readers to weed out the important information and ignore the hype.**

Stock Investment Decision:

So you finally decided to start investing. You know that a low P/E ratio is generally better than a high P/E ratio, your portfolio should be diversified across multiple sectors, a company with a lot of cash on its balance sheet is superior to one excessively burdened with debt, and analysts' recommendations should always be taken with a grain of salt. Now that you have all the fundamentals of investing mastered, and perhaps even studied the more complicated concepts of technical analysis, you are ready to pick stocks.

But wait! With tens of thousands of stocks to choose from, how do you go about actually selecting an equity investment? Going through every balance sheet and income statement out there to see which companies have a favorable net debt position and are improving their net margins is an impossible feat. Furthermore, choosing an investment based strictly on the criteria inputs of a stock screener is prone to error and does not produce a full representation of the company. Finally, simply coattailing institutional investors will usually not help you find any ten baggers as fund managers tend to focus primarily on safe blue chip stocks.

Determine Your Goals

The first step to actively picking out a stock from the sea of available alternatives is to determine what the purpose of your portfolio is. Investors focused on income, capital preservation or capital appreciation requirements will have different investment criteria. Income-oriented investors will usually focus on low-growth firms in industries and sectors such as the utilities, although other alternatives such as REITs and master limited partnerships are also readily available. Those who have a low risk tolerance and are primarily concerned with capital preservation tend to invest in stable blue chip corporations. And investors who are looking for capital appreciation should target companies of ranging market caps and life cycle stages. (To learn more, check out *The Stock Cycle: What Goes Up Must Come Down*.)

Keeping diversification in mind, any one of the aforementioned investor types could use a combination of the above strategies. However, deciding which category you fall under is the easy part; figuring out what stocks to actually pick is where the process becomes more complicated. Although there is no single correct method on how to go about picking stocks, a basic strategy should help investors narrow down their search before they start analyzing the financials of a firm.

Keep Your Eyes Open

In order to be an informed investor, it is essential to be up to date with current market events and opinions. Reading blogs, magazines and online financial news is a simple form of passive research which can be done on a daily basis. Sometimes, a news article or blog post will form the foundation of the underlying investment thesis.

For example, reading a newspaper article about a major acquisition can spur further research into the fundamentals which drive that particular industry. The internet provides a tremendous level of convenience whereby any major event will be analyzed through multiple perspectives by different investment professionals. Sometimes, the underlying argument can be as simple as "there is currently a movement away from poverty in the emerging markets which is causing an

increased number of people to cross the border into middle class status - as a result, there will be a surge in demand for product/commodity X." Taking this argument one step further, the investor can deduce that with an increase in the demand for X, producers of X will likely prosper.

This type of basic analysis forms the basis of the overall "story" behind the investment, which justifies purchasing any stock in the specific industry of interest. An important research requirement is to scrutinize the assumptions and theories of the original argument: if the supply of X is infinite, an upward demand push will likely have minimal effects on companies in the business of selling/producing X. Once you are comfortable and convinced of the general argument after performing this form of qualitative research, corporate press releases and investor presentation reports are a good place for continued analysis. (Cut through the information clutter and decipher the useful news from the useless.

Finding Companies

The next stage in the stock picking process involves finding the companies which you may be potentially interested in. There are three simple ways of going about this task:

1. Find the ETFs which track the performance of the industry and check out their holdings. This can be as easy as just searching for "Industry X ETF"; the official ETF page will disclose either all or only the top holdings of the fund.

2. Use a screener to filter stocks based on specific criteria such as sector and industry. Screeners offer users additional features such as sorting companies based on market cap, dividend yield and other useful investment metrics.

3. Continue searching through the blogosphere, stock analysis articles and financial news releases for ideas on companies in the chosen investment space. Remember to be critical of everything you read and analyze both sides of the argument.

The three aforementioned methods are by no means the only ways on how to pick a company, but they do offer an easy way to start. There are also clear advantages and disadvantages associated with each strategy that investors should take note of.

Searching for companies based on ETF holdings is probably the quickest way of narrowing down your search. However, ETFs typically hold only the largest companies in the space, often ignoring micro and small cap corporations. These types of funds also tend to focus on domestic markets. Stock screeners offer a very efficient alternative to narrow down the list of companies subject to desired inputs. Although screeners provide a more comprehensive list of securities which includes international firms, the investment metrics which are presented are often somewhat misleading. Seeking out experts' opinions via news sources is the most time consuming alternative, but it undoubtedly carries significant advantages. Firstly, reading stock analysis pieces will further your understanding on industry fundamentals. Secondly, investors will often come across junior companies which can neither be found through screeners or within ETF holdings. Finally, research at this stage cuts down your subsequent research time later on in the stock-picking process.

Turn to Corporate Presentations

Once you are convinced that "Industry X" is a solid investment and you are familiar with the major players, it is time to turn your attention to investor presentations. Although presentations are less comprehensive than financial statements, they provide a general overview of how firms make their money and are much easier to browse through than 10-Qand 10-K reports. Additionally, presentation reports will usually have forward-looking information on the expected direction of the company and its industry. While the previous tips of going through fund holdings or performing a screen will produce a large number of potential equity investment options, looking through company websites and presentations lets you further refine your search. This stage of stock picking becomes more active.

The information of an investor presentation report includes such material as balance sheet/income statement/cash flow statement performance, operational highlights, future growth

opportunities and a general industry overview. Analyzing presentations involves more in-depth scrutiny of the actual company in order to decide why a particular stock is likely to outperform one of its competitors. Investors must now determine which companies are most attractive based on the presented information and narrow down their search once again. A key consideration is that the purpose of an investor presentation report is to give the company a chance to put its best foot forward.

The Bottom Line

At this point you could be left with only a single investment prospect or a list of 10 or more companies. Perhaps, even after all the time you put into finding a stock, you decided that this industry is not right for you. This sort of decision is vital to the art of stock picking since your research has helped prevent a potentially sour investment.

COMPANY ANALYSIS

Introduction to company analysis

Company analysis is a process carried out by investors to evaluate securities, collecting info related to the company's profile, products and services as well as profitability. It is also referred as 'fundamental analysis.' A company analysis incorporates basic info about the company, like the mission statement and apparition and the goals and values. During the process of company analysis, an investor also considers the company's history, focusing on events which have contributed in shaping the company.

Also, a company analysis looks into the goods and services proffered by the company. If the company is involved in manufacturing activities, the analysis studies the products produced by the company and also analyzes the demand and quality of these products. Conversely, if it is a service business, the investor studies the services put forward.

How to do a company analysis

It is essential for a company analysis to be comprehensive to obtain strategic insight. Being a thorough evaluation of an organization, the company analysis provides insight to rationalize processes and make revenue potentials better.

The process of conducting a company analysis involves the following steps:

- The primary step is to determine the type of analysis which would work best for your company.
- Research well about the methods for analysis. In order to perform a company analysis, it is important to understand the expected outcome for doing so. The analysis should provide answer about what is done right and wrong on the basis of a thorough evaluation. It is, therefore, important6 to make the right choice for the analysis methods.
- The next step involves implementing the selected method for conducting the financial analysis. It is important for the analysis to include internal and external factors affecting the business.
- As a next step, all the major findings should be supported by use of statistics.
- The final step involves reviewing the results. The weaknesses are then attempted to be corrected. The company analysis is used in concluding issues and determining the possible solutions. The company analysis is conducted to provide a picture of the company at a specific time, thus providing the best way of enhancing a company, internally as well as externally.

Fundamental analysis

Fundamental analysis seeks to determine the intrinsic value of a company's stock. But since qualitative factors, by definition, represent aspects of a company's business that are difficult or impossible to quantify, incorporating that kind of information into a pricing evaluation can be quite difficult. On the flip side, as we've demonstrated, you can't ignore the less tangible characteristics of a company.

In this section we are going to highlight some of the company-specific qualitative factors that you should be aware of.

Business Model

Even before an investor looks at a company's financial statements or does any research, one of the most important questions that should be asked is: What exactly does the company do? This is referred to as a company's business model – it's how a company makes money. You can get a good overview of a company's business model by checking out its website or reading the first part of its 10-K filing.

Sometimes business models are easy to understand. Take McDonalds, for instance, which sells hamburgers, fries, soft drinks, salads and whatever other new special they are promoting at the time. It's a simple model, easy enough for anybody to understand.

Other times, you'd be surprised how complicated it can get. Boston Chicken Inc. is a prime example of this. Back in the early '90s its stock was the darling of Wall Street. At one point the company's CEO bragged that they were the "first new fast-food restaurant to reach $1 billion in sales since 1969". The problem is, they didn't make money by selling chicken. Rather, they made their money from royalty fees and high-interest loans to franchisees. Boston Chicken was really nothing more than a big franchisor. On top of this, management was aggressive with how it recognized its revenue. As soon as it was revealed that all the franchisees were losing money, the house of cards collapsed and the company went bankrupt.

At the very least, you should understand the business model of any company you invest in. The "Oracle of Omaha", Warren Buffett, rarely invests in tech stocks because most of the time he doesn't understand them. This is not to say the technology sector is bad, but it's not Buffett's area of expertise; he doesn't feel comfortable investing in this area. Similarly, unless you understand a company's business model, you don't know what the drivers are for future growth, and you leave yourself vulnerable to being blindsided like shareholders of Boston Chicken were.

Competitive Advantage

Another business consideration for investors is competitive advantage. A company's long-term success is driven largely by its ability to maintain a competitive advantage - and keep it. Powerful competitive advantages, such as Coca Cola's brand name and Microsoft's domination of the personal computer operating system, create a moat around a business allowing it to keep competitors at bay and enjoy growth and profits. When a company can achieve competitive advantage, its shareholders can be well rewarded for decades.

Management

Just as an army needs a general to lead it to victory, a company relies upon management to steer it towards financial success. Some believe that management is the most important aspect for investing in a company. It makes sense - even the best business model is doomed if the leaders of the company fail to properly execute the plan.

Average investor evaluating the management of a company

This is one of the areas in which individuals are truly at a disadvantage compared to professional investors. You can't set up a meeting with management if you want to invest a few thousand dollars. On the other hand, if you are a fund manager interested in investing millions of dollars, there is a good chance you can schedule a face-to-face meeting with the upper brass of the firm.

Every public company has a corporate information section on its website. Usually there will be a quick biography on each executive with their employment history, educational background and any applicable achievements. Don't expect to find anything useful here. Let's be honest: We're looking for dirt, and no company is going to put negative information on its corporate website.

Instead, here are a few ways for you to get a feel for management:

1. Conference Calls

The Chief Executive Officer (CEO) and Chief Financial Officer (CFO) host quarterly conference calls. (Sometimes you'll get other executives as well.) The first portion of the call is management basically reading off the financial results. What is really interesting is the question-and-answer portion of the call. This is when the line is open for analysts to call in and ask management direct questions. Answers here can be revealing about the company, but more importantly, listen for candor.

2. Management Discussion and Analysis (MD&A)

The Management Discussion and Analysis is found at the beginning of the annual report (discussed in more detail later in this tutorial). In theory, the MD&A is supposed to be frank commentary on the management's outlook. Sometimes the content is worthwhile, other times it's boilerplate. One tip is to compare what management said in past years with what they are saying now. Is it the same material rehashed? Have strategies actually been implemented? If possible, sit down and read the last five years of MD&As; it can be illuminating.

3. Ownership and Insider Sales

Just about any large company will compensate executives with a combination of cash, restricted stock and options. While there are problems with stock options, it is a positive sign that members of management are also shareholders. The ideal situation is when the founder of the company is still in charge. Examples include Bill Gates (in the '80s and '90s), Michael Dell and Warren Buffett. When you know that a majority of management's wealth is in the stock, you can have confidence that they will do the right thing. As well, it's worth checking out if management has been selling its stock. This has to be filed with the Securities and Exchange Commission (SEC), so it's publicly available information. Talk is cheap - think twice if you see management unloading all of its shares while saying something else in the media.

4. Past Performance

Another good way to get a feel for management capability is to check and see how executives have done at other companies in the past. You can normally find biographies of top executives on company web sites. Identify the companies they worked at in the past and do a search on those companies and their performance.

Corporate Governance

Corporate governance describes the policies in place within an organization denoting the relationships and responsibilities between management, directors and stakeholders. These policies are defined and determined in the company charter and its bylaws, along with corporate laws and regulations. The purpose of corporate governance policies is to ensure that proper checks and balances are in place, making it more difficult for anyone to conduct unethical and illegal activities.

Good corporate governance is a situation in which a company complies with all of its governance policies and applicable government regulations (such as the Sarbanes-Oxley Act of 2002) in order to look out for the interests of the company's investors and other stakeholders.

Although, there are companies and organizations (such as Standard & Poor's) that attempt to quantitatively assess companies on how well their corporate governance policies serve stakeholders, most of these reports are quite expensive for the average investor to purchase.

Fortunately, corporate governance policies typically cover a few general areas: structure of the board of directors, stakeholder rights and financial and information transparency. With a little research and the right questions in mind, investors can get a good idea about a company's corporate governance.

Financial and Information Transparency

This aspect of governance relates to the quality and timeliness of a company's financial disclosures and operational happenings. Sufficient transparency implies that a company's

financial releases are written in a manner that stakeholders can follow what management is doing and therefore have a clear understanding of the company's current financial situation.

Stakeholder Rights

This aspect of corporate governance examines the extent that a company's policies are benefiting stakeholder interests, notably shareholder interests. Ultimately, as owners of the company, shareholders should have some access to the board of directors if they have concerns or want something addressed. Therefore companies with good governance give shareholders a certain amount of ownership voting rights to call meetings to discuss pressing issues with the board.

Another relevant area for good governance, in terms of ownership rights, is whether or not a company possesses large amounts of takeover defenses (such as the Macaroni Defense or the Poison Pill) or other measures that make it difficult for changes in management, directors and ownership to occur.

Structure of the Board of Directors

The board of directors is composed of representatives from the company and representatives from outside of the company. The combination of inside and outside directors attempts to provide an independent assessment of management's performance, making sure that the interests of shareholders are represented.

The key word when looking at the board of directors is independence. The board of directors is responsible for protecting shareholder interests and ensuring that the upper management of the company is doing the same. The board possesses the right to hire and fire members of the board on behalf of the shareholders. A board filled with insiders will often not serve as objective critics of management and will defend their actions as good and beneficial, regardless of the circumstances. Information on the board of directors of a publicly traded company (such as biographies of individual board members and compensation-related info) can be found in the DEF 14A proxy statement.

We've now gone over the business model, management and corporate governance. These three areas are all important to consider when analyzing any company. We will now move on to looking at qualitative factors in the environment in which the company operates.

MEASURING EARNINGS

Accountants use the income statement to provide information about a firm's operating activities over a specific time period. The income statement is designed to measure the earnings from assets in place. This section examines the principles underlying earnings and return measurement in accounting, and the way they are put into practice.

Accounting Principles Underlying Measurement of Earnings

Two primary principles underlie the measurement of accounting earnings and profitability. The first is the principle of accrual accounting. In accrual accounting, the revenue from selling a good or service is recognized in the period in which the good is sold or the service is performed (in whole or substantially). A corresponding effort is made on the expense side to match expenses to revenues. This is in contrast to a cash-based system of accounting, where revenues are recognized when payment is received and expenses are recorded when paid.

The second principle is the categorization of expenses into operating, financing, and capital expenses. Operating expenses are expenses that, at least in theory, provide benefits only for the current period; the cost of labor and materials expended to create products that are sold in the current period is a good example. Financing expenses are expenses arising from the non-equity financing used to raise capital for the business; the most common example is interest expenses. Capital expenses are expenses that are expected to generate benefits over multiple periods; for instance, the cost of buying land and buildings is treated as a capital expense.

Operating expenses are subtracted from revenues in the current period to arrive at a measure of operating earnings of the firm. Financing expenses are subtracted from operating earnings to estimate earnings to equity investors or net income. Capital expenses are written off over their useful lives (in terms of generating benefits) as depreciation or amortization.

Measuring Accounting Earnings

Since income can be generated from a number of different sources, generally accepted accounting principles (GAAP) require that income statements be classified into four sections income from continuing operations, income from discontinued operations, extraordinary gains or losses, and adjustments for changes in accounting principles.

Generally accepted accounting principles require the recognition of revenues when the service for which the firm is getting paid has been performed in full or substantially, and the firm has received in return either cash or a receivable that is both observable and measurable. Expenses linked directly to the production of revenues (like labor and materials) are recognized in the same period in which revenues are recognized. Any expenses that are not directly linked to the production of revenues are recognized in the period in which the firm consumes the services. Accounting has resolved one inconsistency that bedeviled it for years, with a change in the way it treats employee options. Unlike the old rules, these option grants were not treated as expenses when granted but only when exercised, the new rules require that employee options be valued and expensed, when granted (with allowances for amortization over periods). Since employee options are part of compensation, which is an operating expense, the new rules make more sense.

While accrual accounting is straightforward in firms that produce goods and sell them, there are special cases where accrual accounting can be complicated by the nature of the product or service being offered. For instance, firms that enter into long-term contracts with their customers are allowed to recognize revenue on the basis of the percentage of the contract that is completed. As the revenue is recognized on a percentage-of-completion basis, a corresponding proportion of the expense is also recognized. When there is considerable uncertainty about the capacity of the buyer of a good or service to pay for it, the firm providing the good or service may recognize the income only when it collects portions of the selling price under the installment method.

Reverting back to the discussion of the difference between capital and operating expenses, operating expenses should reflect only those expenses that create revenues in the current period. In practice, however, a number of expenses are classified as operating expenses

that do not seem to meet this test. The first is depreciation and amortization. While the notion that capital expenditures should be written off over multiple periods is reasonable, the accounting depreciation that is computed on the original historical cost often bears little resemblance to the actual economic depreciation. The second expense is research and development expenses, which accounting standards classify as operating expenses, but which clearly provide benefits over multiple periods. The rationale used for this classification is that the benefits cannot be counted on or easily quantified.

Much of financial analysis is built around the expected future earnings of a firm, and many of these forecasts start with the current earnings. It is therefore important to know how much of these earnings comes from the ongoing operations of the firm and how much can be attributed to unusual or extraordinary events that are unlikely to recur on a regular basis. From that standpoint, it is useful that firms categorize expenses into operating and nonrecurring expenses, since it is the earnings prior to extraordinary items that should be used in forecasting. Nonrecurring items include:

- Unusual or infrequent items, such as gains or losses from the divestiture of an asset or division, and write-offs or restructuring costs. Companies sometimes include such items as part of operating expenses. As an example, Boeing in 1997 took a write-off of $1,400 million to adjust the value of assets it acquired in its acquisition of McDonnell Douglas, and it showed this as part of operating expenses.
- Extraordinary items, which are defined as events that are unusual in nature, infrequent in occurrence, and material in impact. Examples include the accounting gain associated with refinancing high-coupon debt with lower-coupon debt, and gains or losses from marketable securities that are held by the firm.
- Losses associated with discontinued operations, which measure both the loss from the phaseout period and any estimated loss on sale of the operations. To qualify, however, the operations have to be separable from the firm.

- Gains or losses associated with accounting changes, which measure earnings changes created by both accounting changes made voluntarily by the firm (such as a change in inventory valuation) and accounting changes mandated by new accounting standards.

FORECASTING EARNINGS

Consensus Earnings

Consensus earnings estimates are far from perfect, but they are watched by many investors and play an important role in measuring the appropriate valuation for a stock. Investors measure stock performance on the basis of a company's earnings power. To make a proper assessment, investors seek a sound estimate of this year's and next year's earnings per share (EPS), as well as a strong sense of how much the company will earn even farther down the road.

As part of their services to clients, large brokerage firms such as Citigroup and Merrill Lynch employ legions of stock analysts to publish forecast reports on companies' earnings over the coming years.

A consensus forecast number is normally an average or median of all the forecasts from individual analysts tracking a particular stock. So, when you hear that a company is expected to earn $1.50 per-share this year, that number could be the average of 30 different forecasts. On the other hand, if it's a smaller company, the estimate could be the average of just one or two stock analyst forecasts.

A few companies, such as Thomson First Call, Reuters and Zacks Investment Research, compile estimates and compute the average or consensus. Consensus numbers can also be found at a number of financial websites, including Yahoo! Finance and MSN MoneyCentral. Some of these sites also show how estimates get revised upwards or downwards.

Consensus estimates of quarterly earnings are published for the current quarter, the next quarter and so on for about eight quarters. In some cases, forecasts are available beyond the first few quarters. Forecasts are also compiled for the current and next 12 month periods.

A consensus forecast for the current year is reported once actual results for the previous year are released. As actual numbers are made available, analysts typically revise their projections within the quarter or year they are forecasting.

Even the most sophisticated investors - such as mutual fund and pension fund managers - rely heavily on consensus estimates. Most of them do not have the resources to track thousands of publicly-listed companies in detail - or even to keep tabs on a fraction of them, for that matter.

On Earnings

Many investors rely on earnings performance to make their investment decisions. Stocks are assessed according to their ability to increase earnings as well as to meet or beat analysts' consensus estimates.

The basic measurement of earnings is earnings per share. This metric is calculated as the company's net earnings - or net income found on its income statement - less dividends on preferred stock, divided by the number of outstanding shares. For example, if a company (with no preferred stock) produces a net income of $12 million in the third quarter and has eight million shares outstanding, its EPS would be $1.50.

Any finance professor will tell you that the only proper way to value a stock is to predict the long-term free cash flows of a company, discount those free cash flows to the present day and then divide by the number of shares. But this is much easier said than done, so investors often shortcut the process by using accounting earnings as a "good enough" substitute for free cash flow.

Accounting earnings certainly are a much better proxy for free cash flow than sales. Besides, accounting earnings are fairly well defined and public companies' earnings statements must go through rigorous accounting audits before they are released. As a result, the investment community views earnings as a fairly reliable - not to mention convenient - measure.

Basis of Analysts' Forecasts

Earnings forecasts are based on analysts' expectations of company growth and profitability. To predict earnings, most analysts build financial models that estimate prospective revenues and costs.

Many analysts will incorporate top-down factors such as economic growth rates, currencies and other macroeconomic factors that influence corporate growth. They use market research reports to get a sense of underlying growth trends. To understand the dynamics of the individual companies they cover, really good analysts will speak to customers, suppliers and competitors. The companies themselves offer earnings guidance that analysts build into the models.

To predict revenues, analysts estimate sales volume growth and estimate the prices that companies can charge for the products. On the cost side, analysts look at expected changes in the costs of running the business. Costs include wages, materials used in production, marketing and sales costs, interest on loans, etc.

According to Damodaran, the general consensus is that analyst forecasts are better than extrapolating from historical growth over the very short-term (up to 1 year) but not over longer time frames. He suggests several factors/questions that can help determine the weight assigned to analyst forecasts:

- How much recent firm-specific information is there? Have there been significant changes in management or business conditions in the recent past, for example, a restructuring?
- Generally speaking, the more there are, the better informative the consensus (although there is also a risk of "herding")
- What much disagreement is there? Because of this herding phenomenon, the extent of disagreement between analysts, for example measured by the standard deviation in growth predictions, is also a useful measure of the reliability of the consensus forecasts.
- Quality of analysts following the stock.

UNIT –III

1. _____ method no intermediary is involved

a). Offer for sale b). **Public issue** c). Private placement

d). Underwriting

2. ____ is a popular method for floating issues

a). Prospectus b). Private placement c). Offer for sale

d). Underwriting

3. ____ is a method of floating shares through an issuing house

a). Private placement b). Public issue c). Rights issue d). **Offer for sale**

4. _____ involves selling of ordinary shares to the existing shareholders of the company.

a). Public issue b). **Rights issue** c). Offer for sale d). Issued for agents only

5. _____ shares allotted to existing shareholders without any considerations.

a). Rights issue b). Public issue c). **Bonus shares** d). Offer for sale

6. _____ is a two way market in which there are investors and buyers.

a). Primary market b). New issue market c). **Secondary market** d). Stock exchange

7. _____ is a place of trading in securities.

a). Stock exchange b). Primary market c). Secondary market d). Underwriting

8. The basic framework for fundamental analysis is _____.

a). Economic analysis b). Industry analysis c). Company analysis d). **Fundamental Analysis**

9. _____ is the total value of the final output of goods and services produced in the economy.

a). Final output b). Economic value c). **GNP** d). SDP

10. _____ is the field of study that applies mathematical and statistical techniques to economic theory.

a). Econometrics b). Econo-statistics c). Analytics d). Econo-maths

11. The _____ is the rate at which one's domestic currency can be converted into the currency of another Country.

a). Exchange rate b). Currency rate c). Currency exchange

d). Exchange currency rate

12. The higher the risk of a security, _____ would be the return expected from the security.

a). Lower b). **Higher** c). Fixed d). Medium

13. Portfolio theory Talks about _____ of stocks.

a). Concentration b). Segmentation c). **Diversification** d). Modernization

14. Portfolio would be subject to considerable variability in returns is _____ risk.

a). Systematic b). Interest rate c). Portfolio d). Diverse

15. The Capital Asset Pricing model is really an extension of the portfolio theory of

a). Dow Jones b). Treynor c). Warren Buffet d). **Markowitz**

PART - B

1. Explain the factors affecting Fundamental Analysis?

2 Enumerate the forecasting techniques used in Economic Analysis?

3. Explain the Factors Affecting Industry Analysis?

4 Describe the various steps involved in fundamental analysis briefly?

5. Explain the factors affecting Economic Analysis with example.

6. Elucidate the concept Industry Analysis with suitable example.

7. Explain the factors affecting Industrial Analysis in detail?

8. What is company analysis? Explain how financial ratios can be used to determine the strengths and weaknesses of a company.

9. Elucidate the difference between Fundamental Analysis and Technical Analysis?

10. Enumerate the Characteristics and types of Industries with suitable examples?

KARPAGAM ACADEMY OF HIGHER EDUCATION
(DEEMED TO BE UNIVERSITY)
(ESTABLISHED UNDER SECTION 3 OF UGC ACT 1956)
DEPARTMENT OF COMMERCE
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
UNIT III

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
1	Financial ratios provide a standardised measure of a firm's	dividend	liquidity	stability	financial position	financial position
2	Financial ratios are helpful in ----------	soundness	identify the weakest area	identify the accounts department		identify the weakest area
3	Fundamentalists have developed certain valuation models for calculating	dividend	share price	future price	market price	share price
4	Ratio analysis can be used to analyse the ----------	market value	financial position	liquidity	solvency	financial position
5	Economic forecasting is usually based on a ----------	scientific theory	modern theory	specific theory	mm theory	specific theory
6	If the market share is _____the company would be able to meet the competition successfully	Low	high	medium	decline	high
7	A study of _____ ratios will be helpful in understanding the relationship between sales and earnings	profitability	current	liquidity	solvency	profitability
8	The _____ affects return on equity shareholders investment	working capital	capital structure	short term profit	long term profit	capital structure
9	Equity shareholders return can be increased by using more debts than	bonds	share price	equity	preference	equity
10	A company must make adequate _____ for payment of tax on its earnings	profit	provision	working capital	share	provision
11	Under this method, the inventory is priced at cost price or market price, whichever is lower	FIFO	LIFO	Cost or market value method	straight line method	Cost or market value method
12	FIFO method will shows the inventory at a ---------	lower cost	higher cost	average cost	midium cost	higher cost

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
13	LIFO method will shows the inventory at a ----------	lower cost	higher cost	average cost	midium cost	lower cost
14	under _____ method a fixed percentage of original cost is charged as depreciation throughout the life of asset	straight line method	diminishing balance method	depreciation fund method	insurance policy method	straight line method
15	In _____ method , the amount of depreciation will reduce from year to year	straight line method	diminishing balance method	depreciation fund method	insurance policy method	diminishing balance method
16	In _____method, the amount of depreciation is calculated with reference to sinking fund tables.	straight line method	diminishing balance method	depreciation fund method	insurance policy method	depreciation fund method
17	Stability of sales ensures _____ to the company	variation	fixed	difficult	stable earning	stable earning
18	Debentures used for ----------	long term	short term	very short term	midium term	long term
19	An efficient management of a company will ensure _____ investment	change	fixed	failure	successful	successful
20	Planning, organising, directing, co-ordinating and controlling are the important functions of the ----------	management	administration	firm	industry	management
21	The company should strive to increase the return on investments and their	appropriation	appreciation	profitability	stable earning	appreciation
22	Ability to maintain _____ of the company within the industry, shows efficient investment decision	Director	dividend	interest	competitiveness	competitiveness
23	Ability to maintain _____ role in the market for growth fo the industry	manager	director	competitiveness	leadership	leadership
24	Financial statement of the company include ----------	profit and loss account	shareholders document	debentureholders documents	employees records	profit and loss account
25	The outsider's liabilities other than current liabilities are known as ----------	long term liabilities	short term liabilities	outsider's liabilities	midium term liabilities	long term liabilities
26	The profit and loss account is called ----------	income statement	expenditure statement	operation statement	cost statement	income statement

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
27	Financial statements provide only _____ information	historical	present	future	convention	historical
28	The preparation of financial statement is based on certain _____ concept	accounting	product	purchase	sales	accounting
29	Annual reports of companies provide ----------	fiancial information	economic information	market information	sales information	fiancial information
30	Daily security prices are quoted in ----------	stock exchnage	leading dailies	investment week	government report	stock exchnage
31	The primary market for securities is ----------	stock exchanges	new issue market	national market	OTCEI	new issue market
32	The _____ anlaysis is based on security price quotation	technical	economic	industry	company	technical
33	The _____ of share means the value of net asset available per equity share of the company	intrinsic value	standard value	national market value	real value	intrinsic value
34	The ----------analysis refers to an evaluation of the relative strengths and weakness of particular industry	company	economic	industry	political	industry
35	Which of the following is used in economic analysis?	gross domestic product	surveys	labour cost	diffusion indexes	gross domestic product
36	A growth industry is	an industry with 10% growth per annum	an industry where demand for its product is exceeding supply	a capital intensive industry	an industry whose average growth is higher than the growth of economy	an industry whose average growth is higher than the growth of economy
37	The investor wants to study those fundamental factors	that affect profit and dividend of a company	that influence the interest and dividend characteristics of a company	that affect the risk and return characteristics of a security	affect profitability	that affect the risk and return characteristics of a security
38	An analysis of the whole market of securities are termed as ----------	macro analysis	micro analysis	general analysis	particular analysis	macro analysis
39	Analysis of only scrip is called as ----------	macro analysis	micro analysis	particular analysis	general analysis	micro analysis
40	Dividing profit after tax by the number of equity shares is equal to ----------	preference share	earning per share	equity share	deffered share	earning per share

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
41	An investors focus on a company's basics is called ---------- approach	upward	bottom up	forward	downward	bottom up
42	The majority of the population in india is engaged in ----------	agriculture	jute industry	textiles	IT	agriculture
43	GDP reflects the overall performance of the ----------	economy	industry	company	fundamental	economy
44	A _____is a method of finding out the future price of a stock which an investor to buy	fundamental analysis	technical analysis	economic analysis	industrial analysis	fundamental analysis
45	_____is really a logical and systematic approach for estimating the future dividends and share price	fundamental analysis	secondary analysis	stock analysis	bond analysis	fundamental analysis
46	The _____has been defined as a homogeneous group of people doing a similar kind of activity	economy	business	industry	office	industry
47	The investor should verify whether a company follows a stable ---------- policy	dividend	interest	appreciation	depreciation	dividend
48	mobilising funds through issue of equity shares is known as	debt financing	financial institution	funds	equity financing	equity financing
49	Return on equity is helpful in acertaining the ---------- value	market value	intrinsic value	extrinsic value	depreciable value	intrinsic value
50	Earning per share represents the profit earned by ----------	dividend	each share	interest	market price	each share
51	Profitability ratio measures ----------	liquidity	interest	profitability	all the above	profitability
52	Expenses ratio establish the relationship between ----------	expenses and sales	expenses and cost	liquidity position	financial position	expenses and sales
53	Profitability ratio based on ----------	assests or investment	assets or revenue	liability or loan	all the above	assests or investment
54	The development of the industry mostly depends upon the ----------	government	communication	productivity of labour	transportation	productivity of labour

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
55	Fundamental analysis is ---------- stages of processes	one	two	three	four	three
56	The first and foremost stage in the industrial life cycle is the ----------	growth stage	decline stage	introduction stage	all the above	introduction stage
57	_____Stage stabilise their prices, develop a market of their own strategies	expansion stage	decline stage	introduction stage	all the above	expansion stage
58	The factors which have to be carefully analysed are regarding the _____of the project	stability	soundness	functions	defunction	stability
59	There are lot of financial and non-financial aspects in _____and the investor should familiarise with themselves	economy	company	industry	technical	economy
60	the financial statements of a company provide the best possible information about the	profitability	stability	employee	policy of the company	profitability

UNIT IV

Technical Analysis–Charting Methods – Market Indicators – Trend Analysis - Trend Reversal – Patterns Moving Average – Exponential Moving Average – Oscillators –RSI - Fundamental Analysis Vs. Technical Analysis.

TECHNICAL ANALYSIS

In finance, technical analysis is a security analysis methodology for forecasting the direction of prices through the study of past market data, primarily price and volume. Behavioral economics and quantitative analysis use many of the same tools of technical analysis which, being an aspect of active management, stands in contradiction to much of modern portfolio theory. The efficacy of both technical and fundamental analysis is disputed by the efficient-market hypothesis which states that stock market prices are essentially unpredictable.

Characteristics

Technical analysis employs models and trading rules based on price and volume transformations, such as the relative strength index, moving averages, regressions, inter-market and intra-market price correlations, business cycles, stock market cycles or, classically, through recognition of chart patterns.

Technical analysis stands in contrast to the fundamental analysis approach to security and stock analysis. Technical analysis analyzes price, volume and other market information, whereas fundamental analysis looks at the facts of the company, market, currency or commodity. Most large brokerage, trading group, or financial institutions will typically have both a technical analysis and fundamental analysis team.

Technical analysis is widely used among traders and financial professionals and is very often used by active day traders, market makers and pit traders. In the 1960s and 1970s it was widely dismissed by academics. In a recent review, Irwin and Park reported that 56 of 95 modern studies found that it produces positive results but noted that many of the positive results were

rendered dubious by issues such as data snooping, so that the evidence in support of technical analysis was inconclusive; it is still considered by many academics to be pseudoscience. Academics such as Eugene Fama say the evidence for technical analysis is sparse and is inconsistent with the weak form of the efficient-market hypothesis. Users hold that even if technical analysis cannot predict the future, it helps to identify trading opportunities.

In the foreign exchange markets, its use may be more widespread than fundamental analysis. This does not mean technical analysis is more applicable to foreign markets, but that technical analysis is more recognized as to its efficacy there than elsewhere. While some isolated studies have indicated that technical trading rules might lead to consistent returns in the period prior to 1987, most academic work has focused on the nature of the anomalous position of the foreign exchange market. It is speculated that this anomaly is due to central bank intervention, which obviously technical analysis is not designed to predict. Recent research suggests that combining various trading signals into a Combined Signal Approach may be able to increase profitability and reduce dependence on any single rule.

Principles

Stock chart showing levels of support (4,5,6, 7, and 8) and resistance (1, 2, and 3); levels of resistance tend to become levels of support and vice versa.

A fundamental principle of technical analysis is that a market's price reflects all relevant information, so their analysis looks at the history of a security's trading pattern rather than external drivers such as economic, fundamental and news events. Therefore, price action tends to repeat itself due to investors collectively tending toward patterned behavior – hence technical analysis focuses on identifiable trends and conditions.

Market action discounts everything

Based on the premise that all relevant information is already reflected by prices, technical analysts believe it is important to understand what investors think of that information, known and perceived.

Prices move in trends

Technical analysts believe that prices trend directionally, i.e., up, down, or sideways (flat) or some combination. The basic definition of a price trend was originally put forward by Dow Theory.

An example of a security that had an apparent trend is AOL from November 2001 through August 2002. A technical analyst or trend follower recognizing this trend would look for opportunities to sell this security. AOL consistently moves downward in price. Each time the stock rose, sellers would enter the market and sell the stock; hence the "zig-zag" movement in the price. The series of "lower highs" and "lower lows" is a tell tale sign of a stock in a down trend. In other words, each time the stock moved lower, it fell below its previous relative low price. Each time the stock moved higher, it could not reach the level of its previous relative high price.

Note that the sequence of lower lows and lower highs did not begin until August. Then AOL makes a low price that does not pierce the relative low set earlier in the month. Later in the same month, the stock makes a relative high equal to the most recent relative high. In this a technician sees strong indications that the down trend is at least pausing and possibly ending, and would likely stop actively selling the stock at that point.

History tends to repeat itself

Technical analysts believe that investors collectively repeat the behavior of the investors that preceded them. To a technician, the emotions in the market may be irrational, but they exist. Because investor behavior repeats itself so often, technicians believe that recognizable (and predictable) price patterns will develop on a chart. Recognition of these patterns can allow the technician to select trades that have a higher probability of success.

Technical analysis is not limited to charting, but it always considers price trends. For example, many technicians monitor surveys of investor sentiment. These surveys gauge the attitude of market participants, specifically whether they are bearish or bullish. Technicians use

these surveys to help determine whether a trend will continue or if a reversal could develop; they are most likely to anticipate a change when the surveys report extreme investor sentiment Surveys that show overwhelming bullishness, for example, are evidence that an uptrend may reverse; the premise being that if most investors are bullish they have already bought the market (anticipating higher prices). And because most investors are bullish and invested, one assumes that few buyers remain. This leaves more potential sellers than buyers, despite the bullish sentiment. This suggests that prices will trend down, and is an example of contrarian trading.

Recently, Kim Man Lui, Lun Hu, and Keith C.C. Chan have suggested that there is statistical evidence of association relationships between some of the index composite stocks whereas there is no evidence for such a relationship between some index composite others. They show that the price behavior of these Hang Seng index composite stocks is easier to understand than that of the index.

Industry

The industry is globally represented by the International Federation of Technical Analysts (IFTA), which is a Federation of regional and national organizations. In the United States, the industry is represented by both the Market Technicians Association (MTA) and the American Association of Professional Technical Analysts (AAPTA). The United States is also represented by the Technical Security Analysts Association of San Francisco (TSAASF). In the United Kingdom, the industry is represented by the Society of Technical Analysts (STA). In Canada the industry is represented by the Canadian Society of Technical Analysts. In Australia, the industry is represented by the Australian Technical Analysts Association (ATAA), (which is affiliated to IFTA) and the Australian Professional Technical Analysts (APTA) Inc.

Professional technical analysis societies have worked on creating a body of knowledge that describes the field of Technical Analysis. A body of knowledge is central to the field as a way of defining how and why technical analysis may work. It can then be used by academia, as well as regulatory bodies, in developing proper research and standards for the field. The Market

Technicians Association (MTA) has published a body of knowledge, which is the structure for the MTA's Chartered Market Technician (CMT) exam.

Systematic trading

Neural networks

Since the early 1990s when the first practically usable types emerged, artificial neural networks (ANNs) have rapidly grown in popularity. They are artificial intelligence adaptive software systems that have been inspired by how biological neural networks work. They are used because they can learn to detect complex patterns in data. In mathematical terms, they are universal function approximators, meaning that given the right data and configured correctly, they can capture and model any input-output relationships. This not only removes the need for human interpretation of charts or the series of rules for generating entry/exit signals, but also provides a bridge to fundamental analysis, as the variables used in fundamental analysis can be used as input.

As ANNs are essentially non-linear statistical models, their accuracy and prediction capabilities can be both mathematically and empirically tested. In various studies, authors have claimed that neural networks used for generating trading signals given various technical and fundamental inputs have significantly outperformed buy-hold strategies as well as traditional linear technical analysis methods when combined with rule-based expert systems.

While the advanced mathematical nature of such adaptive systems has kept neural networks for financial analysis mostly within academic research circles, in recent years more user friendly neural network software has made the technology more accessible to traders. However, large-scale application is problematic because of the problem of matching the correct neural topology to the market being studied.

Back testing

Systematic trading is most often employed after testing an investment strategy on historic data. This is known as back testing. Back testing is most often performed for technical indicators,

but can be applied to most investment strategies (e.g. fundamental analysis). While traditional back testing was done by hand, this was usually only performed on human-selected stocks, and was thus prone to prior knowledge in stock selection. With the advent of computers, back testing can be performed on entire exchanges over decades of historic data in very short amounts of time.

The use of computers does have its drawbacks, being limited to algorithms that a computer can perform. Several trading strategies rely on human interpretation, and are unsuitable for computer processing. Only technical indicators which are entirely algorithmic can be programmed for computerized automated back testing.

Combination with other market forecast methods

John Murphy states that the principal sources of information available to technicians are price, volume and open interest. Other data, such as indicators and sentiment analysis, are considered secondary.

However, many technical analysts reach outside pure technical analysis, combining other market forecast methods with their technical work. One advocate for this approach is John Bollinger, who coined the term rational analysis in the middle 1980s for the intersection of technical analysis and fundamental analysis. Another such approach, fusion analysis, overlays fundamental analysis with technical, in an attempt to improve portfolio manager performance.

Technical analysis is also often combined with quantitative analysis and economics. For example, neural networks may be used to help identify inter-market relationships. A few market forecasters combine financial astrology with technical analysis. Chris Carolan's article "Autumn Panics and Calendar Phenomenon", which won the Market Technicians Association Dow Award for best technical analysis paper in 1998, demonstrates how technical analysis and lunar cycles can be combined. Calendar phenomena, such as the January effect in the stock market, are generally believed to be caused by tax and accounting related transactions, and are not related to the subject of financial astrology.

Investor and newsletter polls, and magazine cover sentiment indicators, are also used by technical analysts.

Empirical evidence

Whether technical analysis actually works is a matter of controversy. Methods vary greatly, and different technical analysts can sometimes make contradictory predictions from the same data. Many investors claim that they experience positive returns, but academic appraisals often find that it has little predictive power. Of 95 modern studies, 56 concluded that technical analysis had positive results, although data-snooping bias and other problems make the analysis difficult. Nonlinear prediction using neural networks occasionally produces statistically significant prediction results. A Federal Reserve working paper regarding support and resistance levels in short-term foreign exchange rates "offers strong evidence that the levels help to predict intraday trend interruptions," although the "predictive power" of those levels was "found to vary across the exchange rates and firms examined".

Technical trading strategies were found to be effective in the Chinese marketplace by a recent study that states, "Finally, we find significant positive returns on buy trades generated by the contrarian version of the moving-average crossover rule, the channel breakout rule, and the Bollinger band trading rule, after accounting for transaction costs of 0.50 percent."

An influential 1992 study by Brock et al. which appeared to find support for technical trading rules was tested for data snooping and other problems in 1999; the sample covered by Brock et al. was robust to data snooping.

Subsequently, a comprehensive study of the question by Amsterdam economist Gerwin Griffioen concludes that: "for the U.S., Japanese and most Western European stock market indices the recursive out-of-sample forecasting procedure does not show to be profitable, after implementing little transaction costs. Moreover, for sufficiently high transaction costs it is found, by estimating CAPMs, that technical trading shows no statistically significant risk-corrected out-of-sample forecasting power for almost all of the stock market indices." Transaction costs are

particularly applicable to "momentum strategies"; a comprehensive 1996 review of the data and studies concluded that even small transaction costs would lead to an inability to capture any excess from such strategies.

In a paper published in the Journal of Finance, Dr. Andrew W. Lo, director MIT Laboratory for Financial Engineering, working with Harry Mamaysky and Jiang Wang found that "

Technical analysis, also known as "charting," has been a part of financial practice for many decades, but this discipline has not received the same level of academic scrutiny and acceptance as more traditional approaches such as fundamental analysis. One of the main obstacles is the highly subjective nature of technical analysis – the presence of geometric shapes in historical price charts is often in the eyes of the beholder. In this paper, we propose a systematic and automatic approach to technical pattern recognition using nonparametric kernel regression, and apply this method to a large number of U.S. stocks from 1962 to 1996 to evaluate the effectiveness of technical analysis. By comparing the unconditional empirical distribution of daily stock returns to the conditional distribution – conditioned on specific technical indicators such as head-and-shoulders or double-bottoms – we find that over the 31-year sample period, several technical indicators do provide incremental information and may have some practical value.

In that same paper Dr. Lo wrote that "several academic studies suggest that ... technical analysis may well be an effective means for extracting useful information from market prices." Some techniques such as Drummond Geometry attempt to overcome the past data bias by projecting support and resistance levels from differing time frames into the near-term future and combining that with reversion to the mean techniques.

Efficient market hypothesis

The efficient-market hypothesis (EMH) contradicts the basic tenets of technical analysis by stating that past prices cannot be used to profitably predict future prices. Thus it holds that

technical analysis cannot be effective. Economist Eugene Fama published the seminal paper on the EMH in the Journal of Finance in 1970, and said "In short, the evidence in support of the efficient markets model is extensive, and (somewhat uniquely in economics) contradictory evidence is sparse."

Technicians EMH ignores the way markets work, in that many investors base their expectations on past earnings or track record, for example. Because future stock prices can be strongly influenced by investor expectations, technicians claim it only follows that past prices influence future prices. They also point to research in the field of behavioral finance, specifically that people are not the rational participants EMH makes them out to be. Technicians have long said that irrational human behavior influences stock prices, and that this behavior leads to predictable outcomes. Author David Aronson says that the theory of behavioral finance blends with the practice of technical analysis:

- By considering the impact of emotions, cognitive errors, irrational preferences, and the dynamics of group behavior, behavioral finance offers succinct explanations of excess market volatility as well as the excess returns earned by stale information strategies.... cognitive errors may also explain the existence of market inefficiencies that spawn the systematic price movements that allow objective TA [technical analysis] methods to work.
- EMH advocates reply that while individual market participants do not always act rationally (or have complete information), their aggregate decisions balance each other, resulting in a rational outcome (optimists who buy stock and bid the price higher are countered by pessimists who sell their stock, which keeps the price in equilibrium). Likewise, complete information is reflected in the price because all market participants bring their own individual, but incomplete, knowledge together in the market.

Random walk hypothesis

The random walk hypothesis may be derived from the weak-form efficient markets hypothesis, which is based on the assumption that market participants take full account of any information contained in past price movements (but not necessarily other public information). In his book A Random Walk Down Wall Street, Princeton economist Burton Malkiel said that technical forecasting tools such as pattern analysis must ultimately be self-defeating: "The problem is that once such a regularity is known to market participants, people will act in such a way that prevents it from happening in the future."[63] Malkiel has stated that while momentum may explain some stock price movements, there is not enough momentum to make excess profits. Malkiel has compared technical analysis to "astrology".

In the late 1980s, professors Andrew Lo and Craig McKinlay published a paper which cast doubt on the random walk hypothesis. In a 1999 response to Malkiel, Lo and McKinlay collected empirical papers that questioned the hypothesis' applicability[65] that suggested a non-random and possibly predictive component to stock price movement, though they were careful to point out that rejecting random walk does not necessarily invalidate EMH, which is an entirely separate concept from RWH. In a 2000 paper, Andrew Lo back-analyzed data from U.S. from 1962 to 1996 and found that "several technical indicators do provide incremental information and may have some practical value". Burton Malkiel dismissed the irregularities mentioned by Lo and McKinlay as being too small to profit from.

The random walk index (RWI) is a technical indicator that attempts to determine if a stock’s price movement is random in nature or a result of a statistically significant trend. The random walk index attempts to determine when the market is in a strong uptrend or downtrend by measuring price ranges over N and how it differs from what would be expected by a random walk (randomly going up or down). The greater the range suggests a stronger trend.

Scientific Technical Analysis

Caginalp and Balenovich in 1994 used their asset-flow differential equations model to show that the major patterns of technical analysis could be generated with some basic assumptions. Some of the patterns such as a triangle continuation or reversal pattern can be generated with the assumption of two distinct groups of investors with different assessments of valuation.The major assumptions of the models are that the finiteness of assets and the use of trend as well as valuation in decision making. Many of the patterns follow as mathematically logical consequences of these assumptions.

One of the problems with conventional technical analysis has been the difficulty of specifying the patterns in a manner that permits objective testing.

Japanese candlestick patterns involve patterns of a few days that are within an uptrend or downtrend. Caginalp and Laurent were the first to perform a successful large scale test of patterns. A mathematically precise set of criteria were tested by first using a definition of a short term trend by smoothing the data and allowing for one deviation in the smoothed trend. They then considered eight major three day candlestick reversal patterns in a non-parametric manner and defined the patterns as a set of inequalities. The results were positive with an overwhelming statistical confidence for each of the patterns using the data set of all S&P 500 stocks daily for the five year period 1992-1996.

Among the most basic ideas of conventional technical analysis is that a trend, once established, tends to continue. However, testing for this trend has often led researchers to conclude that stocks are a random walk. One study, performed by Poterba and Summers, found a small trend effect that was too small to be of trading value. As Fisher Black noted, "noise" in trading price data makes it difficult to test hypotheses.

One method for avoiding this noise was discovered in 1995 by Caginalp and Constantine who used a ratio of two essentially identical closed-end funds to eliminate any changes in valuation. A closed-end fund (unlike an open-end fund) trades independently of its net asset

value and its shares cannot be redeemed, but only traded among investors as any other stock on the exchanges. In this study, the authors found that the best estimate of tomorrow's price is not yesterday's price (as the efficient market hypothesis would indicate), nor is it the pure momentum price (namely, the same relative price change from yesterday to today continues from today to tomorrow). But rather it is almost exactly halfway between the two.

A survey of modern studies by Park and Irwin showed that most found a positive result from technical analysis.

In 2011, Caginalp and DeSantisZ have used large data sets of closed-end funds, where comparison with valuation is possible, in order to determine quantitatively whether key aspects of technical analysis such as trend and resistance have scientific validity. Using data sets of over 100,000 points they demonstrate that trend has an effect that is at least half as important as valuation.

The effects of volume and volatility, which are smaller, are also evident and statistically significant. An important aspect of their work involves the nonlinear effect of trend. Positive trends that occur within approximately 3.7 standard deviations have a positive effect. For stronger uptrends, there is a negative effect on returns, suggesting that profit taking occurs as the magnitude of the uptrend increases. For downtrends the situation is similar except that the "buying on dips" does not take place until the downtrend is a 4.6 standard deviation event. These methods can be used to examine investor behavior and compare the underlying strategies among different asset classes.

In 2013, Kim Man Lui and T Chong pointed out that the past findings on technical analysis mostly reported the profitability of specific trading rules for a given set of historical data. These past studies had not taken the human trader into consideration as no real-world trader would mechanincially adopt signals from any technical analysis method. Therefore, to unveil the truth of technical analysis, we should get back to understand the performance between experienced and novice traders. If the market really walks randomly, there will be no difference between these two kinds of traders. However, it is found by experiment that traders who are

more knowledgeable on technical analysis significantly outperform those who are less knowledgeable.

Ticker tape reading

Until the mid-1960s, "tape reading" was a popular form of technical analysis. It consisted of reading market information such as price, volume, order size, and so on from a paper strip which ran through a machine called a stock ticker. Market data was sent to brokerage houses and to the homes and offices of the most active speculators. This system fell into disuse with the advent of electronic information panels in the late 60's, and later computers, which allow for the easy preparation of charts.

Quotation board

Another form of technical analysis used so far was via interpretation of stock market data contained in quotation boards, that in the times before electronic screens, were huge chalkboards located into the stock exchanges, with data of the main financial assets listed on exchanges for analysis of their movements. It was manually updated with chalk, with the updates regarding some of these data being transmitted to environments outside of exchanges (such as brokerage houses, bucket shops, etc.) via the aforementioned tape, telegraph, telephone and later telex.

This analysis tool was used both, on the spot, mainly by market professionals for day trading and scalping, as well as by general public through the printed versions in newspapers showing the data of the negotiations of the previous day, for swing and position trades.

Despite to continue appearing in print in newspapers, as well as computerized versions in some websites, analysis via quotation board is another form of technical analysis that has fallen into disuse by the majority.

MARKET INDICATOTRS

A series of technical indicators used by traders to predict the direction of the major financial indexes. Most market indicators are created by analyzing the number of companies that

have reached new highs relative to the number that created new lows, also known as market breadth.

Charting terms and indicators

Concepts

- Average true range – averaged daily trading range, adjusted for price gaps
- Breakout – the concept whereby prices forcefully penetrate an area of prior support or resistance, usually, but not always, accompanied by an increase in volume.
- Chart pattern – distinctive pattern created by the movement of security prices on a chart
- Cycles – time targets for potential change in price action (price only moves up, down, or sideways)
- Dead cat bounce – the phenomenon whereby a spectacular decline in the price of a stock is immediately followed by a moderate and temporary rise before resuming its downward movement
- Elliott wave principle and the golden ratio to calculate successive price movements and retracements
- Fibonacci ratios – used as a guide to determine support and resistance
- Momentum – the rate of price change
- Point and figure analysis – A priced-based analytical approach employing numerical filters which may incorporate time references, though ignores time entirely in its construction
- Resistance – a price level that may prompt a net increase of selling activity
- Support – a price level that may prompt a net increase of buying activity
- Trending – the phenomenon by which price movement tends to persist in one direction for an extended period of time

Types of charts

- Candlestick chart – Of Japanese origin and similar to OHLC, candlesticks widen and fill the interval between the open and close prices to emphasize the open/close relationship.

In the West, often black or red candle bodies represent a close lower than the open, while white, green or blue candles represent a close higher than the open price.

- Line chart – Connects the closing price values with line segments.
- Open-high-low-close chart – OHLC charts, also known as bar charts, plot the span between the high and low prices of a trading period as a vertical line segment at the trading time, and the open and close prices with horizontal tick marks on the range line, usually a tick to the left for the open price and a tick to the right for the closing price.
- Point and figure chart – a chart type employing numerical filters with only passing references to time, and which ignores time entirely in its construction.

Overlays

Overlays are generally superimposed over the main price chart.

- Bollinger bands – a range of price volatility
- Channel – a pair of parallel trend lines
- Ichimoku kinko hyo – a moving average-based system that factors in time and the average point between a candle's high and low
- Moving average – the last n-bars of price divided by "n"—where "n" is the number of bars specified by the length of the average. A moving average can be thought of as a kind of dynamic trend-line.
- Parabolic SAR – Wilder's trailing stop based on prices tending to stay within a parabolic curve during a strong trend
- Pivot point – derived by calculating the numerical average of a particular currency's or stock's high, low and closing prices
- Resistance – a price level that may act as a ceiling above price
- Support – a price level that may act as a floor below price
- Trend line – a sloping line described by at least two peaks or two troughs

Breadth Indicators

These indicators are based on statistics derived from the broad market

- Advance–decline line – a popular indicator of market breadth
- McClellan Oscillator - a popular closed-form indicator of breadth
- McClellan Summation Index - a popular open-form indicator of breadth

Price-based indicators

These indicators are generally shown below or above the main price chart.

- %C – denotes current markets environment as range expansion or a range contraction, it also forecast when extremes in trend or choppiness are being reached, so the trader can expect change.
- Average directional index – a widely used indicator of trend strength
- Commodity Channel Index – identifies cyclical trends
- MACD – moving average convergence/divergence
- Momentum – the rate of price change
- Relative strength index (RSI) – oscillator showing price strength
- Relative Vigor Index (RVI) – oscillator measures the conviction of a recent price action and the likelihood that it will continue
- Stochastic oscillator – close position within recent trading range
- Trix – an oscillator showing the slope of a triple-smoothed exponential moving average

Volume-based indicators

- Accumulation/distribution index – based on the close within the day's range
- Money Flow – the amount of stock traded on days the price went up
- On-balance volume – the momentum of buying and selling stocks

Trend Analysis

Trend Analysis is the practice of collecting information and attempting to spot a pattern, or trend, in the information. In some fields of study, the term "trend analysis" has more formally defined meanings.

Although trend analysis is often used to predict future events, it could be used to estimate uncertain events in the past, such as how many ancient kings probably ruled between two dates, based on data such as the average years which other known kings reigned.

Project management

In project management trend analysis is a mathematical technique that uses historical results to predict future outcome. This is achieved by tracking variances in cost and schedule performance. In this context, it is a project management quality control tool.

Statistics

In statistics, trend analysis often refers to techniques for extracting an underlying pattern of behaviour in a time series which would otherwise be partly or nearly completely hidden by noise. A simple description of these techniques is trend estimation, which can be undertaken within a formal regression analysis.

Trend analysis for business improvement

Trend analysis for business improvement Choosing trends and results to analyse. Developing a trend analysis system Analysing trends to improve business. Trend analysis is the process of comparing business data over time to identify any consistent results or trends. You can then develop a strategy to respond to these trends in line with your business goals.

Trend analysis helps you understand how your business has performed and predict where current business operations and practices will take you. Done well, it will give you ideas about how you might change things to move your business in the right direction. Trend analysis to help improve your business by:

- Identifying areas where your business is performing well so you can duplicate success
- Identifying areas where your business is underperforming
- Providing evidence to inform your decision making.

This guide explains how you can use historical data to analyse trends and improve your business.

Moving Average

The moving average forecast is based on the assumption of a constant model. In practice the moving average will provide a good estimate of the mean of the time series if the mean is constant or slowly changing. In the case of a constant mean, the largest value of m will give the best estimates of the underlying mean. A longer observation period will average out the effects of variability.

The purpose of providing a smaller m is to allow the forecast to respond to a change in the underlying process. To illustrate, we propose a data set that incorporates changes in the underlying mean of the time series.

The example curves do not match these equations because the example model is not continuously increasing, rather it starts as a constant, changes to a trend and then becomes constant again. Also the example curves are affected by the noise.

The moving average forecast of periods into the future is represented by shifting the curves to the right. The lag and bias increase proportionally. The equations below indicate the lag and bias of a forecast periods into the future when compared to the model parameters. Again, these formulas are for a time series with a constant linear trend.

Charting Methods:

There are four primary types of charts used by investors and traders depending on the type of information they're seeking and their desired goals. These chart types include line charts, bar charts, candlestick charts, and point and figure charts.

Line Charts

Line charts are the most basic type of chart because it represents only the closing prices over a set period. The line is formed by connecting the closing prices for each period over the timeframe. While this type of chart doesn't provide much insight into intraday price movements, many investors consider the closing price to be more important than the open, high, or low price within a given period. These charts also make it easier to spot trends since there's less 'noise' happening compared to other chart types.

Bar Charts:

Bar charts expand upon the line chart by adding the open, high, low, and close – or the daily price range, in other words – to the mix. The chart is made up of a series of vertical lines that represent the price range for a given period with a horizontal dash on each side that represents the open and closing prices. The opening price is the horizontal dash on the left side of the horizontal line and the closing price is located on the right side of the line. If the opening price is lower than the closing price, the line is often shaded black to represent a rising period. The opposite is true for a falling period, which is represented by a red shade.

Candlestick Charts

Candlestick charts originated in Japan over 300 years ago, but have since become extremely popular among traders and investors. Like a bar chart, candlestick charts have a thin vertical line showing the price range for a given period that's shaded different colors based on whether the stock ended higher or lower. The difference is a wider bar or rectangle that represents the difference between the opening and closing prices.

Falling periods will typically have a red or black candlestick body, while rising periods will have a white or clear candlestick body. Days where the open and closing prices are the same will not have any wide body or rectangle at all.

Figure 13 – Candlestick Chart Example – Source: StockCharts.com

Point and Figure Charts

Point and figure charts are not very well known or used by the average investor, but they have a long history of use dating back to the first technical traders. The chart reflects price movements without time or volume concerns, which helps remove noise – or insignificant price movements – that can distort a trader's view of the overall trend. These charts also try to eliminate

the skewing effect that time has on chart analysis.

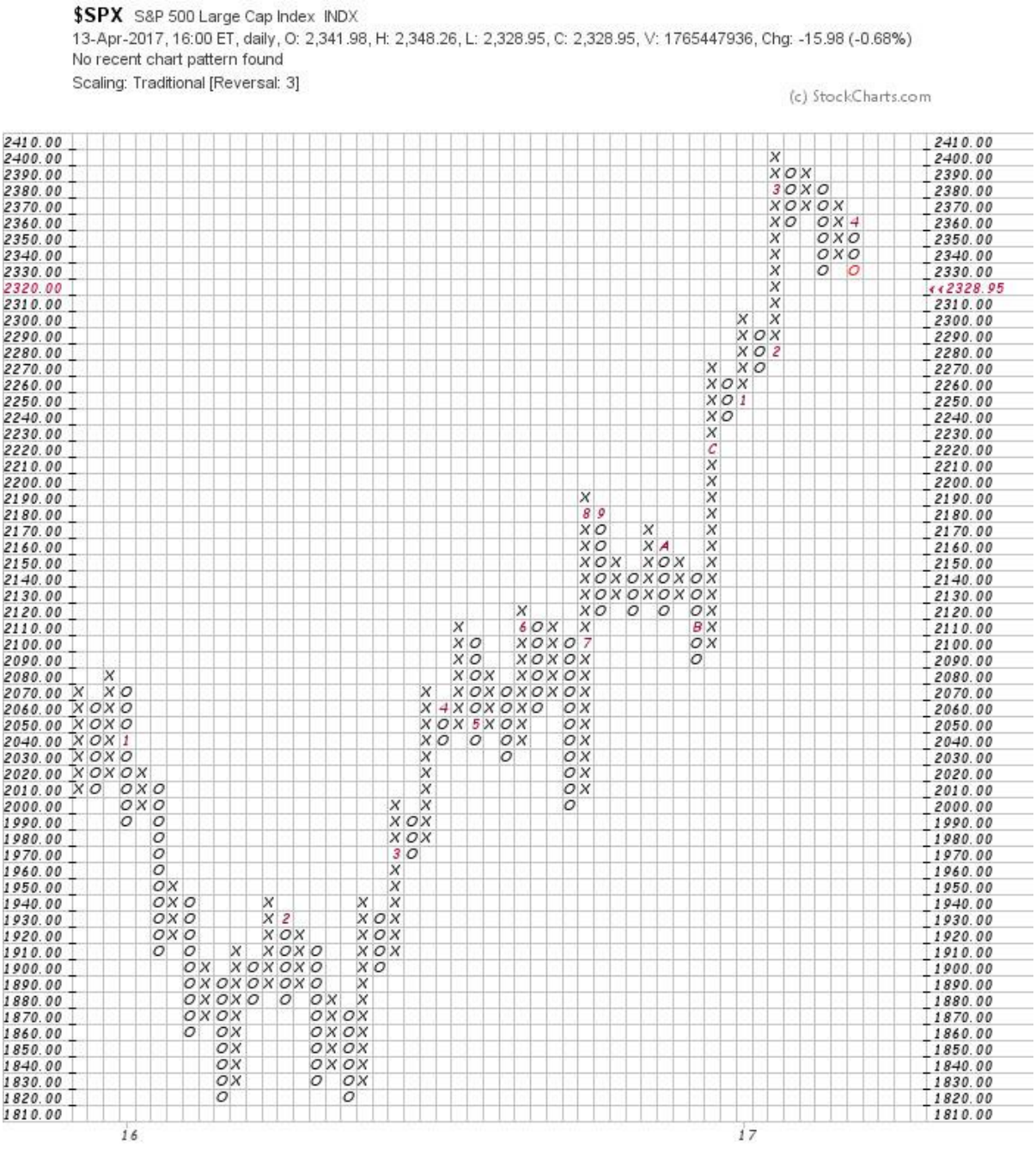


Figure 14 – Point and Figure Chart Example – Source: StockCharts.com

Point and figure charts are characterized by a series of Xs and Os. The Xs represent upward price trends and the Os represent downward price trends. There are also numbers and letters in the chart that represent months and given investors a rough idea of dates. Each box on the chart represents the price scale, which adjusts depending on the price of the stock: The higher the stock's price the more each box represents. On most charts, a box represents $1 or 1 point.

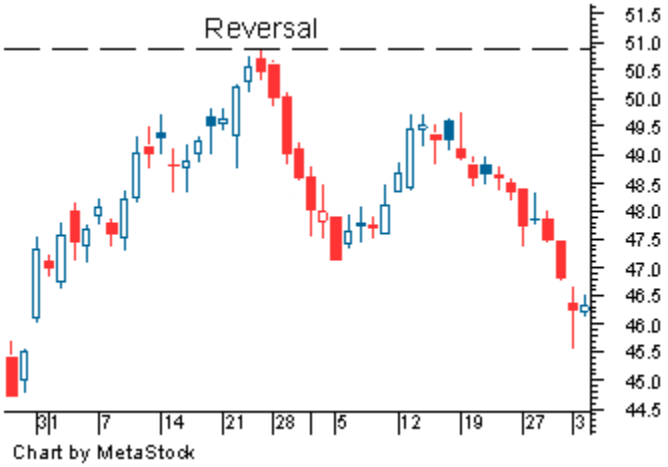
Another key point to remember is that point and figure charts have reversal criteria that must be set by the technical analyst – although it's usually set to three. The reversal criteria represents how much the price has to move away from the higher or low in the price to create a new trend, or in other words, how much the price has to move in order for a column of Xs to become a column of Os, or vice versa. When the price trend has moved from one trend to another, it shifts to the right, signaling a trend change.

Trend Analysis:

Trend analysis is a statistical procedure performed to evaluate hypothesized linear and nonlinear relationships between two *quantitative* variables. Typically, it is implemented either as an analysis of variance (ANOVA) for quantitative variables or as a regression analysis. It is commonly used in situations when data have been collected over time or at different levels of a variable; especially when a single independent variable, or *factor*, has been manipulated to observe its effects on a dependent variable, or *response variable* (such as in experimental studies). In particular, the means of a dependent variable are observed across conditions, levels, or points of the manipulated independent variable to statistically determine the form, shape, or *trend* of such relationship.

Trend Reversal:

A reversal is a change in the direction of a price trend, which can be a positive or negative change against the prevailing trend. On a price chart, reversals undergo a recognizable change in the price structure. A reversal is also referred to as a "trend reversal," a "rally" or a "correction."



BREAKING DOWN 'Reversal'

An uptrend, which is a series of higher highs and higher lows, reverses into a downtrend by changing to a series of lower highs and lower lows. A downtrend, which is a series of lower highs and lower lows, reverses into an uptrend by changing to a series of higher highs and higher lows.

Reversals often occur in intraday trading and happen rather quickly, but they can also occur over days or weeks of trading. Technical analysts watch for reversal patterns throughout the day, because they can indicate the need for a different trading strategy on the same security or can provide an opportunity to profit. Intraday reversals are often the result of news events and company announcements that change the valuation outlook for a specific stock.

Potential Trading Strategies

By watching the technical charting of a stock's price, traders can identify when a reversal is occurring. Traders often anticipate a reversal to occur in a stock that has been consecutively reaching new highs or new lows. In technical trading analysis, traders often closely watch the candlestick movements of a stock. In technical analysis, the candlestick represents the stock's trading price range throughout the day, with the top being its highest price and the bottom being

its lowest price. A candlestick chart shows the consecutive movement of the stock's price throughout the day, with emphasis on its trading range.

Example of Trading Strategy

An example of a trading strategy for a stock reversal to the downside could occur when a technical analyst holds stock ABC and notices a reversal pattern in the candlestick charts. Technical analysts typically consider a reversal trading pattern reliable to trade upon after five to 10 consecutively lower candlestick patterns trading within approximately a five-minute timeframe. When this occurs, a trader seeking to profit on a reversal to the downside could close his existing long position and assume a short position, to capitalize on the downward movement of the stock's price.

Given the opposite trading scenario, a technical analyst seeking to profit from a reversal to the upside would initiate the opposite strategy. If the trader sees adequate consecutive candlestick pattern movement to the upside after the stock's price has been trending downward, the trader may assume a reversal and could then enter into long positions to benefit from the rising prices, and close out short positions to stop the investment from incurring further losses.

Moving Average:

Chart patterns can be difficult to read given the volatility in price movements. Moving averages can help smooth out these erratic movements by removing day-to-day fluctuations and make trends easier to spot. Since they take the average of past price movements, moving averages are better for accurately reading past price movements rather than predicting future past movements. (To learn more, read the Moving Averages tutorial).

Types of Moving Averages

The three most popular types of moving averages are *Simple Moving Averages* (SMA), *Exponential Moving Averages* (EMA), and *Linear Weighted Moving Averages*.

While the calculation of these moving averages differs, they are used in the same way to help assist traders in identifying short-, medium-, and long-term price trends.

Simple Moving Average

The most common type of moving average is the simple moving average, which simply takes the sum of all of the past closing prices over a time period and divides the result by the total number of prices used in the calculation. For example, a 10-day simple moving average takes the last ten closing prices and divides them by ten.

– Simple Moving Averages – Source: StockCharts.com

Figure shows a stock chart with both a 50-day and 200-day moving average. The 50-day moving average is more responsive to price changes than the 200-day moving. In general, traders can increase the responsiveness of a moving average by decreasing the period and smooth out movements by increasing the period.

Critics of the simple moving average see limited value because each point in the data series has the same impact on the result regardless of when it occurred in the sequence. For example, a price jump 199 days ago has just as much of an impact on a 200-day moving average as one day

ago. These criticisms sparked traders to identify other types of moving averages designed to solve these problems and create a more accurate measure.

Linear Weighted Average:

The linear weighted average is the least common moving average, which takes the sum of all closing prices, multiplies them by the position of the data point, and divides by the number of periods. For example, a five-day linear weighted average will take the current closing price and multiple it by five, yesterday's closing price and multiple it by four, and so forth, and then divide the total by five. While this helps resolve the problem with the simple moving average, most traders have turned to the next type of moving average as the best option.

Exponential Moving Average

The exponential moving average leverages a more complex calculation to smooth data and place a higher weight on more recent data points. While the calculation is beyond the scope of this tutorial, traders should remember that the EMA is more responsive to new information relative to the simple moving average. This makes it the moving average of choice for many technical traders.

– EMA v. SMA Moving Averages – Source: StockCharts.com

Figure shows how the EMA (red line) reacts more quickly than the SMA (blue line) when sudden price movements occur. For example, the breakout in late-November caused the EMA to move higher more quickly than the SMA even though both are measuring the same 50-day period. The difference may seem slight, but it can dramatically affect returns.

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Figure 15 – Simple Moving Averages – Source: StockCharts.com

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Figure 16 – EMA v. SMA Moving Averages – Source: StockCharts.com

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How to Use Moving Averages

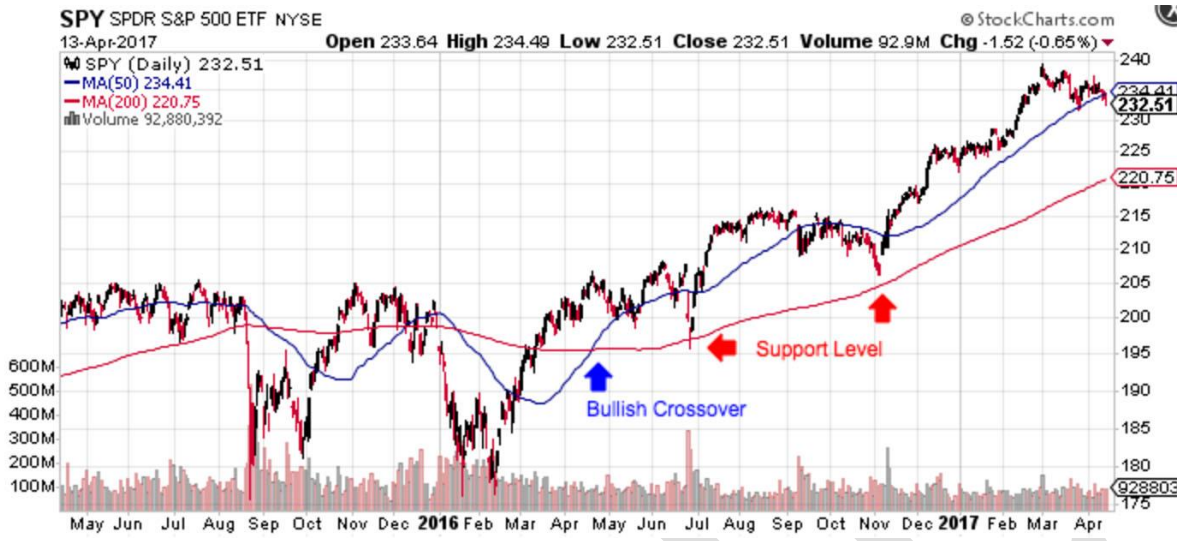
Moving averages are helpful for identifying current trends and support or resistance levels, as well as generating actual trading signals.

The slope of the moving average can be used as a gauge of trend strength. In fact, many momentum based indicators (as we will see in the next section) look at the slope of the moving average to determine the strength of a trend. For example, *Figure 16* (above) has moving average slopes that clearly show a moderate sideways period between September and October and a significant upswing between December and April.

Many technical analysts often look at multiple moving averages when forming their view of long-term trends. When a short-term moving average is above a long-term moving average, that means that the trend is higher or bullish, and vice versa for short-term moving averages below long-term moving averages.

Moving averages can also be used to identify trend reversals in several ways:

1. *Price Crossover*. The price crossing over the moving average can be a powerful sign of a trend reversal, while the price crossing above the moving average indicates a bullish breakout ahead. Often, traders will use a long-term moving average to measure these crossovers since the price frequently interacts with shorter-term moving averages, which creates too much noise for practical use.
2. *MA Crossover*. Short-term moving averages crossing below long-term moving averages is often the sign of a bearish reversal, while a short-term moving average crossover above a long-term moving average could precede a breakout higher. Longer distances between the moving averages suggest longer term reversals as well. For instance, a 50-day moving average crossover above a 200-day moving average is a stronger signal than a 10-day moving average crossover above a 20-day moving average.



– *Crossover and Support Illustrations – Source: StockCharts.com*

And finally, moving averages can be used to identify areas of support and resistance. Long-term moving averages, such as the 200-day moving average, are closely watched areas of support and resistance for stocks. A move through a major moving average is often used as a sign from technical traders that a trend is reversing.

These terms refer to two different stock-picking methodologies used for researching and forecasting the future growth trends of stocks. Like any investment strategy or philosophy, both have their advocates and adversaries. Here are the defining principles of each of these methods of stock analysis:

- Fundamental analysis is a method of evaluating securities by attempting to measure the intrinsic value of a stock. Fundamental analysts study everything from the overall economy and industry conditions to the financial condition and management of companies.
- Technical analysis is the evaluation of securities by means of studying statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to

measure a security's intrinsic value but instead use stock charts to identify patterns and trends that may suggest what a stock will do in the future.

In the world of stock analysis, fundamental and technical analysis are on completely opposite sides of the spectrum. Earnings, expenses, assets and liabilities are all important characteristics to fundamental analysts, whereas technical analysts could not care less about these numbers. Which strategy works best is always debated, and many volumes of textbooks have been written on both of these methods. So, do some reading and decide for yourself which strategy works best with your investment philosophy.

UNIT – IV

1. The _____ is a description of how rational investors should build efficient portfolio and select the optimal portfolio

a). CAPM b). APT c). Option pricing theory **d). Portfolio theory**

2. Risk is measured as a variability in _____.

a). Principle **b). Return** c). Safety d). Return and Safety

3. The _____ derives the relationship between the expected return and risk of individual securities and portfolios

a). CAPM b). APT c). Option pricing theory d). Portfolio theory

4. Investors attempt to reduce the variability of returns through _____ of investments.

a). Concentration b). Sectorisation c). Indexation **d). Diversification**

5. When a trend reverses and begins to rise, a technical analyst would recommend _____ of a share.

a). Purchase b). Sale c). Hold d). Hedge

6. According to Dow Theory, the third movement is _____.

a). Long term movement **b). Day to day fluctuations** c). Correction

d). Short term movement

7. A bull market is market where the prices are having _____ movements.

a). Downward **b). Upward** c). Cyclical

d). Flat

8. Balanced funds are typically a portfolio of _____.

a). Equities b). Bonds **c). Equities and Bonds**

d). Commodities

9. When a trend reverses and begins to fall, a technical analyst would recommend _____ of a share.

a). Purchase b). **Sale** c). Hold d). Both purchase and sales

10. Support occurs when price is _____.

a). Falling but bounces back b). Increases but reverses

c). Falling continuously d). Increasing continuously

11. Determining the expected returns and risk of different portfolio is called _____.

a). Return analysis b). Risk analysis c). Risk return analysis **d). Portfolio analysis**

12. The interest payment stated as a percentage of the maturity value of a bond is _____.

a). Coupon rate b). Interest rate c). Maturity rate d). Bond rate

13. Growth funds are typically a portfolio of _____.

a). Bonds b). Equities **c). Money market instruments**

d). Preference shares

14. A Bear market is market where the prices are having _____ movements.

a). Downward b). Upward c). Cyclical d). Flat

15. According to Dow theory, the formation of higher bottoms and higher tops indicate _____.

a). Bearish trend b). **Bullish trend** c). Flat market d). Cyclical market

PART - B

1. Explain the concept of Company Analysis with suitable illustration?
2. Elucidate the difference between Fundamental Analysis and Technical Analysis?
3. Explain the Techniques used in analyzing a Company's Performance?
4. Enumerate the difference between Fundamental Analysis and Technical Analysis?
5. Enumerate the constituents of Company Analysis.
6. Explain the concept of industry life cycle. Describe the different stages in the industry life cycle.
7. Explain the Dow Theory with suitable example?
8. Describe the chart patterns that help to identify trend reversal.
9. Enumerate Dow Theory and Odd Lot Theory used in Technical Analysis?
10. Explain the way in ratio analysis an Indicator of a company's growth with example?

KARPAGAM ACADEMY OF HIGHER EDUCATION
(DEEMED TO BE UNIVERSITY
(ESTABLISHED UNDER SECTION 3 OF UGC ACT 1956)
DEPARTMENT OF COMMERCE
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
UNIT IV

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
1	Bullish market said when large volume of trade follows the _____ price	rise price	fall price	stability	constant	rise price
2	Share sold in small lots are called ----------	odd lots	buyer	seller	broker	odd lots
3	An Decrease in the index shows more --------	selling	buying	sell and buy	investigate	selling
4	An increase in the index shows more ----------	selling	buying	sell and buy	investigate	selling
5	In the weak form of market stock prices reflect ----------	the past prices and traded volumes	the demand for the scrip	the country's economic conditions	the past price of the scrip	the past prices and traded volumes
6	A run in the stock price is ----------	an unterrupted sequence of either fall or rise in stock prices	an alternative sequence of stock price movement	an interrupted sequence of either fall or rise in stock prices	a residual analysis	an unterrupted sequence of either fall or rise in stock prices
7	Moving average method used by ----------	survey	chart	records	others	chart
8	Moving average are known as ----------	running average	recordical average	mode average	samples	running average
9	The prices of securities are determined by the ----------	government policy	company movements	demand and supply	price of stock	demand and supply
10	Which factors affect the supply and demand of a security?	rational	irrational	rational and irrational	profits	rational and irrational

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
11	Shifts in demand and supply can be detected with the help of --------	chart	Email	Letters	records	chart
12	The technical analysis attempts to forecast changes in the prices of securities by studying the ----------	company data	industry data	economic data	market data	market data
13	The word moving means that the body of the data moves ahead to include th recent ----------	assumptions	observation	survey	graphic records	observation
14	The technical analysis only helps us improve the knowledge of the probabilities of ----------	price behaviour	future price behaviour	past price behaviour	current price behaviour	price behaviour
15	The technical analyst uses the price chart as a basic tool to study the ----------	share price movement	market price movement	company price movements	industry price movements	share price movement
16	The _____theory is one of the oldest technical methods of security valuation	Dow theory	Markowitz theory	JapaneseCandlestickCharts	Random walk theory	Dow theory
17	When the market is moving upwards continuously, of short duration is referred as	bullrun	bearphase	correction	movements	bullrun
18	The dow theory makes certain assumptions. The second hypotheis is	correction are manipulated	secondary reactions are manipulated	the average discount everything	primary trend can be manipulated	correction are manipulated
19	When there is a bull in the trading market followed by ----------	low purchase	high purchase	midium purchase	average purchase	high purchase
20	The market indices do not rise or fall in ----------	straightline	upward	downward	upward and downward	straightline
21	When the short-term average moves below the longterm average, it is indicative of ----------	fall price	decrease price	very low price	very high price	fall price
22	Rate of change measures the rate of change between	current price and price	future price and the price	past price behaviour	forecast price and price	current price and price

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
23	Oscillators indicate the ----------	price momentum	positive momentum	negative momentum	market momentum	market momentum
24	Short -selling is a technical indication which is also known as ----------	midium interest	short interest	high interest	short and high interest	short interest
25	Odd-lot trading helps to ----------	small investor	midium investor	big investors	financial investor	small investor
26	In short-selling when the ratio is less than 1, the market is considered	good	satisfy	highly satisfy	weak	weak
27	Investors sells their shares when market value is ----------	high price	low price	midium price	average price	high price
28	Investors buys their shares when market value is ----------	high price	average price	midium price	low price	low price
29	Technical analysis works on the basis of ----------	assumption	accurate value	outline value	future value	assumption
30	Technical analysis believes ----------	stock price	price trend	past trend	market price	past trend
31	Technical analysis _____are used to compare various price movement	charts and tools	communication	industry analysis	company analysis	charts and tools
32	Market data includes all of the following except ----------	number of shares traded.	earnings.	level of market indices.	stock price.	earnings.
33	The two primary tools of a technical analyst are ----------	level of the market index and volume.	economic indicators and level of the market index.	price and volume.	price and technical indicators.	price and volume.
34	When market shows an increasing trend it is known as----------	bull and bear	bear market	lam duck	bull market	bull market

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
35	APT stands	asset pricing theory	asset product term	asset price terms	assumption pricing theory	asset pricing theory
36	The oldest approach to common stock selection is ----------	fundamental analysis	technical analysis	random walk analysis	value analysis	technical analysis
37	Technical analysis reflects the idea that stock prices	move upward over time.	move inversely over time.	move in trends.	move randomly.	move in trends.
38	The stock price may intersect the	moving average price	exponential moving average	stock price average	methods	moving average price
39	When the oscillator reaches the extreme lower end, its is suggested to buy the ----------	scrips	symmetrical	ascending	descending	scrips
40	Technical analysts gives importance to total ---------	equity	bonds	shares	return	return
41	The technician believes that there is no _____ value to any stock	face value	standard value	real value	market value	real value
42	The primary trend which is used for analysis is ----------	short term trend	long term trend	very short term trend	midium term trend	long term trend
43	The secondary trend which is used for analysis is ----------	short term trend	long term trend	very short term trend	midium term trend	short term trend
44	Minor trends are also called --------	random wriggles	primary trend	secondary trend	bullish trend	random wriggles
45	Bullish market said when small volume of trade follows the _____ price	rise price	fall price	stability	constant	fall price
46	DOW theory formulated hypothesis that the stock market does not perform on a	assumption basis	consist basis	random basis	parellel basis	random basis

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
47	The secondary trend also known as ---------- in technical analysis	evaluation trend	correction trend	baised trend	relates trend	correction trend
48	The technical analysis only helps us improve the knowledge of the probabilities of	price behaviour	future price behaviour	past price behaviour	current price behaviour	price behaviour
49	The technical analyst uses the price chart as a basic tool to study the ----------	share price movement	market price movement	company price movements	industry price movements	share price movement
50	The _____theory is one of the oldest technical methods of security valuation	Dow theory	Markowitz theory	JapaneseCandlestickCharts	Random walk theory	Dow theory
51	When the market is moving upwards continuously, of short duration. His is referred as	bullrun	bearphase	correction	movements	bullrun
52	The dow theory makes certain assumptions. The second hypotheis is ---------	correction are manipulated	secondary reactions are manipulated	the average discount everything	primary trend can be manipulated	correction are manipulated
53	Charts helps technical analysis ----------	difficult	complecated	different	effectively	effectively
54	When there is a bull in the trading market followed by ----------	low purchase	high purchase	midium purchase	average purchase	high purchase
55	The market indices do not rise or fall in ----------	straightline	upward	downward	upward and downward	straightline
56	When the short-term average moves below the longterm average, it is indicative of ----------	fall price	decrease price	very low price	very high price	fall price
57	Rate of change measures the rate of change between ----------	current price and price	future price and the price	past price behaviour	forecast price and price	current price and price
58	Oscillators indicate the ----------	price momentum	positive momentum	negative momentum	market momentum	market momentum

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
59	Short -selling is a technical indication which is also known as	midium interest	short interest	high interest	short and high interest	short interest
60	Odd-lot trading helps to ----------	small investor	midium investor	big investors	financial investor	small investor

UNIT V

Portfolio Analysis: Methods of Portfolio Construction – Selection of Portfolio Management-Practical Aspects – Performance Evaluation - Portfolio Revision – Problems.

Meaning

Portfolio is a combination of securities such as stocks, bonds and money market instruments. The process of blending together the broad asset classes so as to obtain optimum return with minimum risk is called portfolio construction. Individual securities have risk return characteristics of their own. Portfolios may or may not take on the aggregate characteristics of their individual parts.

Diversification of investment helps to spread risk over many assets. A diversification of securities gives the assurance of obtaining the anticipated return on the portfolio. In a diversified portfolio, some securities may not perform as expected, but others may exceed the expectation and making the actual return of the portfolio reasonably close to the anticipated one. Keeping a portfolio of single security may lead to a greater likelihood of the actual return somewhat different from that of the expected return. Hence, it is a common practice to diversify securities in the portfolio.

Benefits of portfolios

Expected return from individual securities carrying some degree of risk. Risk was defined as the standard deviation around the expected return. In effect we equated a security's risk with the variability of its return. More dispersion or variability about a security's expected return meant the security was riskier than one with less dispersion. The simple fact that securities carrying differing degrees of expected risk lead most investors to the notion of holding more than one security at a time is an attempt to spread risks by not putting all their eggs into one basket. Diversification of one's holdings is intended to reduce risk in an economy in which every asset's returns are subject to some degree of uncertainty. Even the value of cash suffers from the inroads of inflation. Most investors hope that if they hold several assets, even if one goes bad, the others will provide some protection from an extreme loss.

Approaches in portfolio construction

Commonly, there are two approaches in the construction of the portfolio of securities viz.

- Traditional approach and
- Markowitz efficient frontier approach.

In the traditional 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 common practice in the traditional approach is to evaluate the entire financial plan of the individual. In the modern approach, portfolios are constructed to maximise 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.

Traditional approach

The traditional approach basically deals with two major decisions.

They are:

(a) Determining the objectives of the portfolio.

(b) Selection of securities to be included in the portfolio.

Normally, this is carried out in four to six steps. Before formulating the objectives, the constraints of the investor should be analysed. Within the given framework of constraints, objectives are formulated. Then based on the objectives, securities are selected. After that, the risk and return of the securities should be studied. The investor has to assess the major risk categories that he or she is trying to minimise. Compromise on risk and non-risk factors has to be carried out. Finally relative portfolio weights are assigned to securities like bonds, stocks and debentures and then diversification is carried out.

Analysis of constraints

The constraints normally discussed are: income needs, liquidity, time horizon, safety, tax considerations and the temperament. Income needs- The income needs depend on the need for income in constant rupees and current rupees. The need for income in current rupees arises from the investor's need to meet all or part of the living expenses. At the same time inflation may erode the purchasing power, the investor may like to offset the effect of the inflation and so, needs income in constant rupees.

- **Need for current income:** The investor should establish the income which the portfolio should generate. The current income need depends upon the entire current financial plan of the investor. The expenditure required to maintain a certain level of standard of living and all the other income generating sources should be determined. Once this information is arrived at, it is possible to decide how much income must be provided for the portfolio of securities.
- **Need for constant income:** Inflation reduces the purchasing power of the money. Hence, the investor estimates the impact of inflation on his estimated stream of income and tries to build a portfolio which could offset the effect of inflation. Funds should be invested in such securities where income from them might increase at a rate that would offset the effect of inflation. The inflation or purchasing power risk must be recognised but this does not pose a serious constraint on portfolio if growth stocks are selected.
- **Liquidity:** Liquidity need of the investment is highly individualistic of the investor. If the investor prefers to have high liquidity, then funds should be invested in high quality short term debt maturity issues such as money market funds, commercial papers and shares that are widely traded. Keeping the funds in shares that are poorly traded or stocks in closely held business and real estate lack liquidity. The investor should plan his cash drain and the need for net cash inflows during the investment period.
- **Safety of the principal:** Another serious constraint to be considered by the investor is the safety of the principal value at the time of liquidation, investing in bonds and debentures is safer than investing in the stocks. Even among the stocks, the money should be

invested in regularly traded companies of longstanding. Investing money in the unregistered finance companies may not provide adequate safety.

- **Time horizon:** Time horizon is the investment-planning period of the individuals. This varies from individual to individual. Individual's risk and return preferences are often described in terms of his 'life cycle'. The states of the life cycle determine the nature of investment. The first stage is the early career situation. At the career starting point assets are lesser than their liabilities. More goods are purchased on credit. His house might have been built with the help of housing loan scheme. His major asset may be the house he owns. His priority towards investments may be in the form of savings for liquidity purposes. He takes life insurance for protecting him from unforeseen events like death and accidents and then he thinks of the investments. The investor is young at this stage and has long horizon of life expectancy with possibilities of growth in income, he can invest in high-risk and growth oriented investments.

The other stage of the time horizon is the mid-career individual. At this stage, his assets are larger than his liabilities. Potential pension benefits are available to him. By this time he establishes his investment program. The time horizon before him is not as long as the earlier stage and he wants to protect his capital investment. He may wish to reduce the overall risk exposure of the portfolio but, he may continue to invest in high risk and high return securities.

The final stage is the late career or the retirement stage. Here, the time horizon of the investment is very much limited. He needs stable income and once he retires, the size of income he needs from investment also increases. In this stage, most of his loans are repaid by him and his assets far exceed the liabilities. His pension and life insurance programmes are completed by him. He shifts his investment to low return and low risk category investments, because safety of the principal is given priority. Mostly he likes to have lower risk with high interest or dividend paying component to be included in his portfolio. Thus, the time horizon puts restrictions on the investment decisions.

Tax consideration: Investors in the income tax paying group consider the tax concessions they could get from their investments. For all practical purpose, they would like to reduce the taxes.

For income tax purpose, interests and dividends are taxed under the head "income from other sources". The capital appreciation is taxed under the head "capital gains" only when the investor sells the securities and realizes the gain. The tax is then at a concessioanl rate depending on the period for which the asset has been held before being sold. From the tax point of view, the form in which the income is received i.e. interest, dividend, short term capital gains and long term capital gains are important. If the investor cannot avoid taxes, he can delay the taxes. Investing in government bonds and NSC can avoid taxation. This constraint makes the investor to include the items which will reduce the tax.

Temperament: The temperament of the investor himself poses a constraint on framing his investment objectives. Some investors are risk lovers or takers who would like to take up higher risk even for low return. While some investors are risk averse, who may not be willing to undertake higher level of risk even for higher level of return. The risk neutral investors match the return and the risk.

Determination of objectives

Portfolios have the common objective of financing present and future expenditures from a large pool of assets. The return that the investor requires and the degree of risk he is willing to take depend upon the constraints. The objectives of portfolio range from income to capital appreciation. The common objectives are stated below:

- Current income
- Growth in income
- Capital appreciation
- Preservation of capital

The investor in general would like to achieve all the four objectives, nobody would like to lose his investment. But, it is not possible to achieve all the four objectives simultaneously. If the investor aims at capital appreciation, he should include risky securities where there is an equal likelihood of losing the capital. Thus, there is a conflict among the objectives.

Selection of portfolio

The selection of portfolio depends on the various objectives of the investor. The selection of portfolio under different objectives are dealt subsequently.

Objectives and asset mix

If the main objective is getting adequate amount of current income, sixty per cent of the investment is made on debts and 40 per cent on equities. The proportions of investments on debt and equity differ according to the individual's preferences.

Money is invested in short term debt and fixed income securities. Here the growth of income becomes the secondary objective and stability of principal amount may become the third. Even within the debt portfolio, the funds invested in short term bonds depends on the need for stability of principal amount in comparison with the stability of income. If the appreciation of capital is given third priority, instead of short term debt the investor opts for long term debt. The period may not be a constraint. Growth of income and asset mix- Here the investor requires a certain percentage of growth in the income received from his investment. The investor's portfolio may consist of 60 to 100 per cent equities and 0 to 40 per cent debt instrument. The debt portion of the portfolio may consist of concession regarding tax exemption. Appreciation of principal amount is given third priority.

Software, hardware and non-conventional energy producing company shares provide good possibility of growth in dividend. Capital appreciation and asset mix- Capital appreciation means that the value of the original investment increases over the years. Investment in real estate's like land and house may provide a faster rate of capital appreciation but they lack liquidity. In the capital market, the values of the shares are much higher than their original issue prices.

Safety of principal and asset mix

Usually, the risk averse investors are very particular about the stability of principal. According to the life cycle theory, people in the third stage of life also give more importance to

the safety of the principal. All the investors have this objective in their mind. No one like to lose his money invested in different assets. But, the degree may differ. The investor's portfolio may consist more of debt instruments and within the debt portfoliomore would be on short term debts.

Risk and return analysis: The traditi onal approach to portfolio building has some basic assumptions. First, the individual prefers larger to smaller returns from securities. To achieve this goal, the investor has to take more risk. The ability to achieve higher returns is dependent upon his ability to judge risk and his ability to take specific risks. The risks are namely interest rate risk, purchasing power risk, financial risk and market risk. The investor analyses the varying degrees of risk and constructs his portfolio. At first, he establishes the minimum income that he must have to avoid hardships under most adverse economic condition and then he decides risk of loss of income that can be tolerated. The investor makes a series of compromises on risk and non-risk factors like taxation and marketability after he has assessed the major risk categories, which he is trying to minimise. The methods of calculating risk and return of a portfolio is classified in following pages of this chapter.

Diversification: Once the asset mix is determined and the risk and return are analysed, the final step is the diversification of portfolio. Financial risk can be minimised by commitments to top-quality bonds, but these securities offer poor resistance to inflation. Stocks provide better inflation protection than bonds but are more vulnerable to financial risks. Good quality convertibles may balance the financial risk and purchasing power risk. According to the investor's need for income and risk tolerance level portfolio is diversified. In the bond portfolio, the investor has to strike a balance between the short term and long term bonds. Short term fixed income securities offer more risk to income and long term fixed income securities offer more risk to principal.

As investor, we have to select the industries appropriate to our investment objectives. Each industry corresponds to specific goals of the investors. The sales of some industries like two wheelers and steel tend to move in tandem with the business cycle, the housing industry sales move counter cyclically. If regular income is the criterion then industries, which resist the

trade cycle should be selected. Likewise, the investor has to select one or two companies from each industry.

The selection of the company depends upon its growth, yield, expected earnings, past earnings, expected price earning ratio, dividend and the amount spent on research and development. Selecting the best company is widely followed by all the investors but this depends upon the investors' knowledge and perceptions regarding the company. The final step in this process is to determine the number of shares of each stock to be purchased. This involves determining the number of different stocks that is required to give adequate diversification. Depending upon the size of the portfolio, equal amount is allocated to each stock. The investor has to purchase round lots to avoid transaction costs.

Modern Approach

We have seen that the traditional approach is a comprehensive financial plan for the individual. It takes into account the individual needs such as housing, life insurance and pension plans. But these types of financial planning approaches are not done in the Markowitz approach. Markowitz gives more attention to the process of selecting the portfolio. His planning can be applied more in the selection of common stocks portfolio than the bond portfolio. The stocks are not selected on the basis of need for income or appreciation. But the selection is based on the risk and return analysis. Return includes the market return and dividend. The investor needs return and it may be either in the form of market return or dividend. They are assumed to be indifferent towards the form of return. Among the list of stocks quoted at the Bombay Stock Exchange or at any other regional stock exchange, the investor selects roughly some group of shares say of 10 or 15 stocks.

For these stocks' expected return and risk would be calculated. The investor is assumed to have the objective of maximising the expected return and minimising the risk. Further, it is assumed that investors would take up risk in a situation when adequately rewarded for it. This implies that individuals would prefer the portfolio of highest expected return for a given level of risk.

In the modern approach, the final step is asset allocation process that is to choose the portfolio that meets the requirement of the investor. The risk taker i.e. who are willing to accept a higher probability of risk for getting the expected return would choose high risk portfolio. Investor with lower tolerance for risk would choose low level risk portfolio. The risk neutral investor would choose the medium level risk portfolio.

Portfolio risk/return

As mentioned earlier, an investment decision involves selection of a combination or group of securities for investment. This group of securities is referred to as a portfolio. The portfolio can be a combination of securities irrespective of their nature, maturity, profitability, or risk characteristics. Investors, rather than looking at individual securities, focus more on the performance of all securities together. While portfolio returns are the weighted returns of all securities constituting the portfolio, the portfolio risk is not the simple eighted average risk of all securities in the portfolio. Portfolio risk considers the standard deviation together with the covariance between securities. Co-variance measures the movement of assets together.

The portfolio risk and return using historical data is computed using Portfolio risk is thus the summation of the individual security variance and the co-movement with other securities in the portfolio. The above formula can be split into a spreadsheet showing all the co-movement measures of the securities. The total variance is the summation of all cells in the following table.

The diagonal summation represents the first part. This is the variance of each security individually. The weights of the securities in the portfolio are represented by the variables

The second part of the variance computation equation is the summation of all other cells except the diagonal cells. These are the co-variance of one security with another security in the portfolio. The total covariance is computed by considering the weight of each security in the portfolio. When the weight of each security is different Co-variance can also be measured in terms of the correlation coefficient. The correlation coefficient is a measure of the relationship between two assets.

The correlation coefficient ranges between the value +1 and –1. A correlation coefficient of +1 indicates that two securities returns move perfectly in tandem with each other. A negative correlation coefficient of -1 implies that when one securities' returns increase, the other securities' return reduces by the same quantum.

Markowitz Portfolio Selection

Markowitz Portfolio Selection Method identifies an investor's unique risk-return preferences, namely utilities. The Markowitz portfolio model has the following assumptions:

Investors are risk averse Investors are utility maximisers than return maximisers All investors have the same time period as the investment horizon An investor who is a risk seeker would prefer high returns for a certain level of risk and he is willing to accept portfolios with lower incremental returns for additional risk levels.

A risk adverse investor would require a high incremental rate of return as compensation for every small amount of increase in risk. A moderate risk taker would have utilities in between these two extremes. 16.6. Sharpe's Single Index Portfolio Selection Method Sharpe W.E. (1964) justified that portfolio risk is to be identified with respect to their return co-movement with the market and not necessarily with respect to within the security co-movement in a portfolio. He therefore concluded that the desirability of a security for its inclusion is directly related to its excess return to beta ratio.

Managing the portfolio

After establishing the asset allocation, the investor has to decide how to manage the portfolio over time. He can adopt passive approach or active approach towards the management of the portfolio. In the 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. In the active approach the investor continuously assess the risk and return of the securities within the asset classes and changes them accordingly. He would be studying the risks (1) market related

(2) group related and

(3) security specific and changes the components of the portfolio to suit his objectives.

Concept

The fundamental concept behind MPT is that the assets in an investment portfolio should not be selected individually, each on its own merits. Rather, it is important to consider how each asset changes in price relative to how every other asset in the portfolio changes in price.

Investing is a tradeoff between risk and expected return. In general, assets with higher expected returns are riskier. For a given amount of risk, MPT describes how to select a portfolio with the highest possible expected return. Or, for a given expected return, MPT explains how to select a portfolio with the lowest possible.

Therefore, MPT is a form of diversification. Under certain assumptions and for specific quantitative definitions of risk and return, MPT explains how to find the best possible diversification strategy.

Assumptions

The framework of MPT makes many assumptions about investors and markets. Some are explicit in the equations, such as the use of Normal distributions to model returns. Others are implicit, such as the neglect of taxes and transaction fees. None of these assumptions are entirely true, and each of them compromises MPT to some degree.

Investors are interested in the optimization problem described above (maximizing the mean for a given variance). In reality, investors have utility functions that may be sensitive to higher moments of the distribution of the returns. For the investors to use the mean-variance optimization, one must suppose that the combination of utility and returns make the optimization of utility problem similar to the mean-variance optimization problem. A quadratic utility without any assumption about returns is sufficient. Another assumption is to use exponential utility and normal distribution, as discussed below.

Asset returns are (jointly) normally distributed random variables. In fact, it is frequently observed that returns in equity and other markets are not normally distributed. Large swings occur in the market far more frequently than the normal distribution assumption would predict. While the model can also be justified by assuming any return distribution that is jointly elliptical, all the joint elliptical distributions are symmetrical whereas asset returns empirically are not.

Bouchaud and Chicheportiche (2012) empirically reject the elliptical hypothesis, writing "intuitively, the failure of elliptical models can be traced to the inadequacy of the assumption of a single volatility mode for all stocks. "

Correlations between assets are fixed and constant forever. Correlations depend on systemic relationships between the underlying assets, and change when these relationships change. Examples include one country declaring war on another, or a general market crash. During times of financial crisis all assets tend to become positively correlated, because they all move (down) together. In other words, MPT breaks down precisely when investors are most in need of protection from risk.

All investors aim to maximize economic utility. This is a key assumption of the efficient market hypothesis, upon which MPT relies.

All investors are rational and risk-averse. This is another assumption of the efficient market hypothesis. In reality, as proven by behavioral economics, market participants are not always rational or consistently rational. The assumption does not account for emotional decisions, stale market information, "herd behavior", or investors who may seek risk for the sake of risk. Casino gamblers clearly pay for risk, and it is possible that some stock traders will pay for risk as well.

All investors have access to the same information at the same time. In fact, real markets contain information asymmetry, insider trading, and those who are simply better informed than others. Moreover, estimating the mean and the covariance matrix of the returns are difficult statistical tasks.

Investors have an accurate conception of possible returns, i.e., the probability beliefs of investors match the true distribution of returns. A different possibility is that investors' expectations are biased, causing market prices to be informationally inefficient. This possibility is studied in the field of behavioral finance, which uses psychological assumptions to provide alternatives to the CAPM such as the overconfidence-based asset pricing model of Kent Daniel, David Hirshleifer, and Avanidhar Subrahmanyam (2001).

There are no taxes or transaction costs. Real financial products are subject both to taxes and transaction costs (such as broker fees), and taking these into account will alter the composition of the optimum portfolio. These assumptions can be relaxed with more complicated versions of the model.

All investors are price takers, i.e., their actions do not influence prices. In reality, sufficiently large sales or purchases of individual assets can shift market prices for that asset and others (via cross elasticity of demand.) An investor may not even be able to assemble the theoretically optimal portfolio if the market moves too much while they are buying the required securities.

Any investor can lend and borrow an unlimited amount at the risk free rate of interest. In reality, every investor has a credit limit.

All securities can be divided into parcels of any size. In reality, fractional shares usually cannot be bought or sold, and some assets have minimum orders sizes.

Risk/Volatility of an asset is known in advance/is constant. In fact, markets often misprice risk (e.g. the US mortgage bubble or the European debt crisis) and volatility changes rapidly.

More complex versions of MPT can take into account a more sophisticated model of the world (such as one with non-normal distributions and taxes) but all mathematical models of finance still rely on many unrealistic premises.

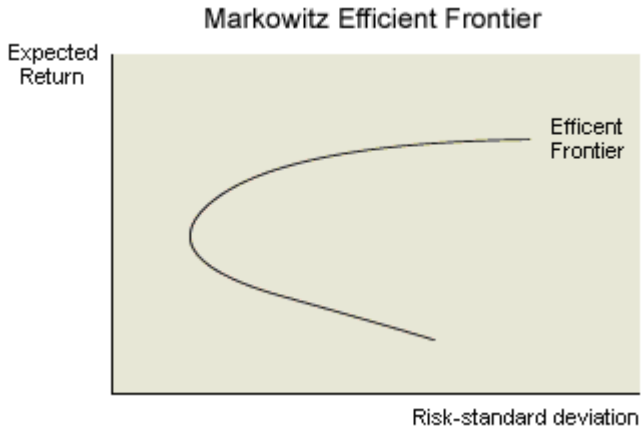
Assumptions to Markowitz Portfolio Theory

- Investors consider each investment alternative as being represented by a probability distribution of expected returns over some holding period.
- Investors maximize one-period expected utility and their utility curves demonstrate diminishing marginal utility of wealth.
- Investors estimate risk on basis of variability of expected returns.
- Investors base decisions solely on expected return and risk.
- Investors prefer higher returns to lower risk and lower risk for the same level of return.
- Markowitz Portfolio Theory
- Harry Markowitz developed the portfolio model. This model includes not only expected return, but also includes the level of risk for a particular return. Markowitz assumed the following about an individual's investment behavior:
- Given the same level of expected return, an investor will choose the investment with the lowest amount of risk.
- Investors measure risk in terms of an investment's variance or standard deviation.
- For each investment, the investor can quantify the investment's expected return and the probability of those returns over a specified time horizon.
- Investors seek to maximize their utility.
- Investors make decision based on an investment's risk and return, therefore, an investor's utility curve is based on risk and return.

The Efficient Frontier

Markowitz' work on an individual's investment behavior is important not only when looking at individual investment, but also in the context of a portfolio. The risk of a portfolio takes into account each investment's risk and return as well as the investment's correlation with the other investments in the portfolio.

A portfolio is considered efficient if it gives the investor a higher expected return with the same or lower level of risk as compared to another investment. The efficient frontieris simply a plot of those efficient portfolios, as illustrated below.



While an efficient frontier illustrates each of the efficient portfolios relative to risk and return levels, each of the efficient portfolios may not be appropriate for every investor. Recall that when creating an investment policy, return and risk were the key objectives. An investor's risk profile is illustrated with indifference curves. The optimal portfolio, then, is the point on the efficient frontier that is tangential to the investor's highest indifference curve. See our article: A Guide to Portfolio Construction, for some essential steps when taking a systematic approach to constructing a portfolio.

Sharpe index model

Casual observation of stock prices over a period of time reveals that most of stock prices move with the market index. When the Sensex increases the price increases and vice versa. Stock prices are related to the market index and this relationship could be used to estimate return on stock. Towards this purpose following equation can be used.

$Ri = \alpha i + \beta iRm + ej$

Where,

Ri= expected return of security I

αi= alpha coefficient

βi= beta coefficient

Rm = the rate of return of market index

ej = error term

According to the equation, the return of stock can be divided into two components, the return due to the market and the return independent of the market. βi indicates the sensitivity of stock return to the changes In market return. For example βi of 1.5 means the stock return is expected to increase by 1.5% if market increases by 1% and vice versa. The estimate of βi and αi can be obtained using regression analysis.

The single index model is based on the assumption that stocks vary together because of common movement in the stock market and there are no effects beyond the market (i.e. any fundamental factor effects) that accounts the stock co-movement. The expected return, standard deviation, and co-variance of single index model represents the joint movement of securities. The mean return is$R_i = \alpha_i + \beta_i R_m + e_j$

The variance of security's return is $\sigma^2 = \beta_i^2 \sigma^2_m + \sigma e_i^2$. The covariance of returns between securities i and j is$\sigma_{ij} = \beta_i \beta_j \sigma^2_m$

The variance of security has two components namely, systematic risk or market risk and unsystematic risk or unique risk. The variance explained by index is called systematic risk and the unexplained variance is called unsystematic risk.Systematic risk= β_i^2 x variance of market index = $\beta_i^2 \sigma^2_m$Unsystematic risk= total variance – systematic risk $e_i^2 = \sigma^2_i$ – systematic riskThus total risk= $\beta_i^2 \sigma^2 + e_i^2$

From this the portfolio variance can be derived $\sigma^2_p = [(\Sigma x_i \beta_i)^2 \sigma^2_m] + [\Sigma x_i^2 e_i^2] \sigma^2_p$ = variance of portfolioσ^2_m = expected variance of indexe_i^2= variation in security return not related to the market indexx_i = the portion of stock i in the portfolio

Assumptions Made

The Sharpe's Single Index Model is based on the following assumptions:

All investors have homogeneous expectations.

1. A uniform holding period is used in estimating risk and return for each security.

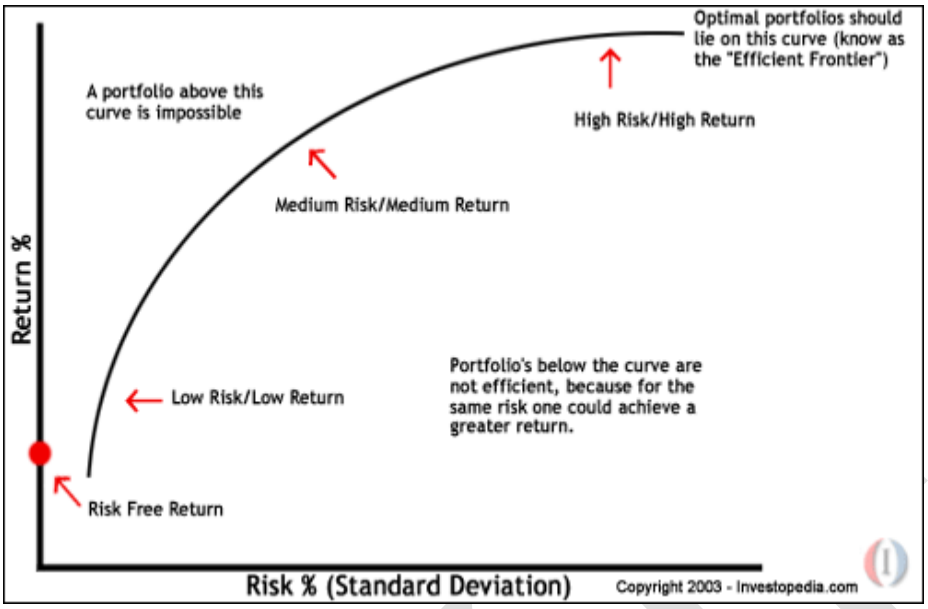
2. The price movements of a security in relation to another do not depend primarily upon the nature of those two securities alone. They could reflect a greater influence that might have cropped up as a result of general business and economic conditions.

3. The relation between securities occurs only through their individual influences along with some indices of business and economic activities. The indices, to which the returns of each security are correlated, are likely to be some securities' market proxy.

4) It has an expected value zero (0) and a finite variance. It is not correlated with the return on market portfolio (Rm) as well as with the error term (ei) for any other securities.

The optimal portfolio concept falls under the modern portfolio theory. The theory assumes (among other things) that investors fanatically try to minimize risk while striving for the highest return possible. The theory states that investors will act rationally, always making decisions aimed at maximizing their return for their acceptable level of risk. The chart below illustrates how the optimal portfolio works.

The optimal-risk portfolio is usually determined to be somewhere in the middle of the curve because as you go higher up the curve, you take on proportionately more risk for a lower incremental return. On the other end, low risk/low return portfolios are pointless because you can achieve a similar return by investing in risk-free assets, like government securities.



Choose how much volatility you are willing to bear in your portfolio by picking any other point that falls on the efficient frontier. This will give you the maximum return for the amount of risk you wish to accept. Optimizing your portfolio is not something you can calculate in your head. There are computer programs that are dedicated to determining optimal portfolios by estimating hundreds (and sometimes thousands) of different expected returns for each given amount of risk.

Creating an Optimized Portfolio

Prior to the era of Markowitz, investors knew that there is a relationship between risk and return but they don't know how to quantify it. To reduce risk they just diversify their portfolio by including many securities into their portfolio. However in Markowitz's model both risk and the expected return are quantifiable.

Risk can be measured by using the standard deviation which in turn is the square root of the variance. The larger the standard deviation then the larger will be the risk.

Return in Markowitz's model can be defined by the following equation.

$R = (P1 – P0 + D) / P0$

Where,

R = Return on the security

P1 = Current Price

P0 = Previous Price (months before Current Price)

D = Dividend

Or put it in simpler terms,

Return = (capital gain or losses) + dividend

Divided by Previous Price

It is very difficult to predict the future price of a security due to its random variable in nature. Ceteris paribus when a firm increases its Dividend then its Share Price will be increased due to higher demand. However the performance of a company is affected by the following risks during a company's operation.

1. **Internal Risk:** This part of the risk is diversifiable which include business risk such as labour strike, poor response to new products, power outage, losing talented staff and etc. Another is the interest rate risk which is due to its high debt load and it will affect the bottom line of a firm. If a firm cannot manage its internal risk well then its operating income will be unstable and hence will affects its share price.

2. **External Risk:** This is also refers as Market Risk which is out of control by the firm. A good example is the increase in the interest rate by the banks which cannot be diversifiable by the firm. An increase in the interest means increase costs and hence will affect its bottom line. Another Market risk is the Global Systemic Financial Crisis. During a financial crisis like what is happening in the Western economies now will surely affects the demand of manufactured goods and raw materials from the rest of the world. Hence the performance of manufacturers from exporting countries will surely be affected and hence their bottom lines and also share prices.

Security Selection for Portfolio

Since now we are now able to quantify both risk and return then we can proceed to select securities based on Markowitz's assumption to build our Portfolio. Based on Markowitz's model a rational investor will do the following.

1. If two securities have the same expected return then the investor will choose the one with the lower standard deviation (risk)

1. If two securities have the same standard deviation (risk) then the investor will choose the one with the higher return.

In the following we shall build a model to illustrate the above point

Table 1 – Same Risk but different Expected Return

Security	Expected Return	Standard Deviation
1	0.11	0.12
2	0.12	0.12
3	0.13	0.12
4	0.14	0.12
5	0.15	0.12

As can be seen from the above the standard deviations for the 5 securities are the same but expected returns are different. Needless to say as a rational investor he will choose security 5 because with the same risk it offers the highest expected return (0.15)

Table 2 – Same Expected Return but different Risk

Security	Expected Return	Standard Deviation
1	0.12	0.11
2	0.12	0.12
3	0.12	0.13
4	0.12	0.14
5	0.12	0.15

As can be seen from the above the Expected Returns for the 5 securities are the same but the level of Risk is different. Needless to say as a rational investor he will choose security 1 because with the same Expected Return it offers the lowest Risk (0.1)

Table 3 – Different Expected Return and Risk

Security	Expected Return	Standard Deviation
1	0.13	0.11
2	0.14	0.12
3	0.15	0.13
4	0.15	0.14
5	0.17	0.15

From the above the Expected Returns for the 5 securities are different from the level of Risk. In this case the higher the risk the higher will be the Expected Return. Which security the investor will choose? It will depend on the risk appetite of the investor. If his risk appetite is high then probably he will prefer security 5 because it offers the highest expected return. If he is risk adverse then he will prefer security 1.

Portfolio Construction is all about investing in a range of funds that work together to create an investment solution for investors. Building a portfolio involves understanding the way various types of investments work, and combining them to address your personal investment objectives and factors such as attitude to risk the investment and the expected life of the investment.

- When building an investment portfolio there are two very important considerations.
- The first is asset allocation, which is concerned with how an investment is spread across different asset types and regions.
- The second is fund selection, which is concerned with the choice of fund managers and funds to represent each of the chosen asset classes and sectors.
- Both of these considerations are important, although academic studies have consistently shown that in the medium to long term, asset allocation usually has a much larger impact on the variability of a portfolio's return.

To help in choosing a suitable asset allocation we have created a Risk Profiler that helps identify your attitude to risk and therefore better identify a combination of investments to build a portfolio.

With such a vast number of investment funds to choose from, spanning the full range of asset classes and world markets it is easy to become confused when choosing which investments to make. It is even more difficult to choose the right combination of investment to potentially meet your investment goals.

Create your risk profile – Measure your perceived level of risk for an investment

Asset Allocation – Determining the right combination of assets – the most important part of the portfolio construction process.

Fine tune your portfolio – Choose to invest in and/or review your existing portfolio to fit in with the asset allocation most suitable to you, potentially reducing your risk and increasing your returns.

Review your portfolio regularly – Once you have constructed your portfolio, it is important to continue to review your asset allocation on a regular basis. Investors failing to do this, may find they become overweight in a particular asset class, potentially increasing the overall risk of their portfolio.

Many investors have built collections of funds over their investing lifetime. As markets have developed and investing styles come in and out of fashion, it is likely that the total portfolio may be too heavily invested in a particular asset class, region, sector or even a particular share which is present in every fund but to varying degrees. In other words, your combined portfolio may no longer meet your needs or aspirations.

Step 1: Determining the Appropriate Asset Allocation

Ascertaining your individual financial situation and investment goals is the first task in constructing a portfolio. Important items to consider are age, how much time you have to grow your investments, as well as amount of capital to invest and future capital needs. A single college graduate just beginning his or her career and a 55-year-old married person expecting to help pay for a child's college education and plans to retire soon will have very different investment strategies.

A second factor to take into account is your personality and risk tolerance. Are you the kind of person who is willing to risk some money for the possibility of greater returns? Everyone

would like to reap high returns year after year, but if you are unable to sleep at night when your investments take a short-term drop, chances are the high returns from those kinds of assets are not worth the stress.

As you can see, clarifying your current situation and your future needs for capital, as well as your risk tolerance, will determine how your investments should be allocated among different asset classes. The possibility of greater returns comes at the expense of greater risk of losses. Investors don't want to eliminate risk so much as optimize it for your unique condition and style. For example, the young person who won't have to depend on his or her investments for income can afford to take greater risks in the quest for high returns. On the other hand, the person nearing retirement needs to focus on protecting his or her assets and drawing income from these assets in a tax-efficient manner.

Conservative Vs Aggressive Investors

Generally, the more risk you can bear, the more aggressive your portfolio will be, devoting a larger portion to equities and less to bonds and other fixed-income securities. Conversely, the less risk that's appropriate, the more conservative your portfolio will be. Here are two examples: one suitable for a conservative investor and another for the moderately aggressive investor.

Conservative portfolio

The main goal of a conservative portfolio is to protect its value. The allocation shown above would yield current income from the bonds, and would also provide some long-term capital growth potential from the investment in high-quality equities.

Moderately aggressive portfolio

A moderately aggressive portfolio satisfies an average risk tolerance, attracting those willing to accept more risk in their portfolios in order to achieve a balance of capital growth and income.

Step 2: Achieving the Portfolio Designed in Step 1

Once determined the right asset allocation, you simply need to divide your capital between the appropriate asset classes. On a basic level, this is not difficult: equities are equities, and bonds are bonds.

But you can further break down the different asset classes into subclasses, which also have different risks and potential returns. For example, an investor might divide the equity portion between different sectors and market caps, and between domestic and foreign stock. The bond portion might be allocated between those that are short term and long term, government versus corporate debt and so forth.

There are several ways you can go about choosing the assets and securities to fulfill your asset allocation strategy.

Stock Picking - Choose stocks that satisfy the level of risk you want to carry in the equity portion of your portfolio - sector, market cap and stock type are factors to consider. Analyze the companies using stock screeners to shortlist potential picks, than carry out more in-depth analyses on each potential purchase to determine its opportunities and risks going forward. This is the most work-intensive means of adding securities to your portfolio, and requires you to regularly monitor price changes in your holdings and stay current on company and industry news.

Bond Picking - When choosing bonds, there are several factors to consider including the coupon, maturity, the bond type and rating, as well as the general interest rate environment.

Mutual Funds - Mutual funds are available for a wide range of asset classes and allow you to hold stocks and bonds that are professionally researched and picked by fund managers. Of course, fund managers charge a fee for their services, which will detract from your returns. Index funds present another choice; they tend to have lower fees because they mirror an established index and are thus passively managed.

Exchange-Traded Funds (ETFs) - If you prefer not to invest with mutual funds, ETFs can be a viable alternative. You can basically think of ETFs as mutual funds that trade like stocks. ETFs are similar to mutual funds in that they represent a large basket of stocks - usually grouped by sector, capitalization, country and the like - except that they are not actively managed, but instead track a chosen index or other basket of stocks. Because they are passively managed, ETFs offer cost savings over mutual funds while providing diversification. ETFs also cover a wide range of asset classes and can be a useful tool for rounding out your portfolio.

Step 3: Reassessing Portfolio Weightings

Once established portfolio, you need to analyze and rebalance it periodically because market movements may cause your initial weightings to change. To assess your portfolio's actual asset allocation, quantitatively categorize the investments and determine their values' proportion to the whole.

The other factors that are likely to change over time are your current financial situation, future needs and risk tolerance. If these things change, you may need to adjust your portfolio accordingly. If your risk tolerance has dropped, you may need to reduce the amount of equities held. Or perhaps you're now ready to take on greater risk and your asset allocation requires that a small proportion of your assets be held in riskier small-cap stocks.

Essentially, to rebalance, you need to determine which of your positions are overweighted and underweighted. For example, say you are holding 30% of your current assets in small-cap equities, while your asset allocation suggests you should only have 15% of your assets in that class. Rebalancing involves determining how much of this position you need to reduce and allocate to other classes.

Step 4: Rebalancing Strategically

Once determined which securities you need to reduce and by how much, decide which underweighted securities you will buy with the proceeds from selling the overweighted securities. To choose your securities, use the approaches discussed in Step 2.

When selling assets to rebalance your portfolio, take a moment to consider the tax implications of readjusting your portfolio. Perhaps your investment in growth stocks has appreciated strongly over the past year, but if you were to sell all of your equity positions to rebalance your portfolio, you may incur significant capital gains taxes. In this case, it might be more beneficial to simply not contribute any new funds to that asset class in the future while continuing to contribute to other asset classes. This will reduce your growth stocks' weighting in your portfolio over time without incurring capital gains taxes.

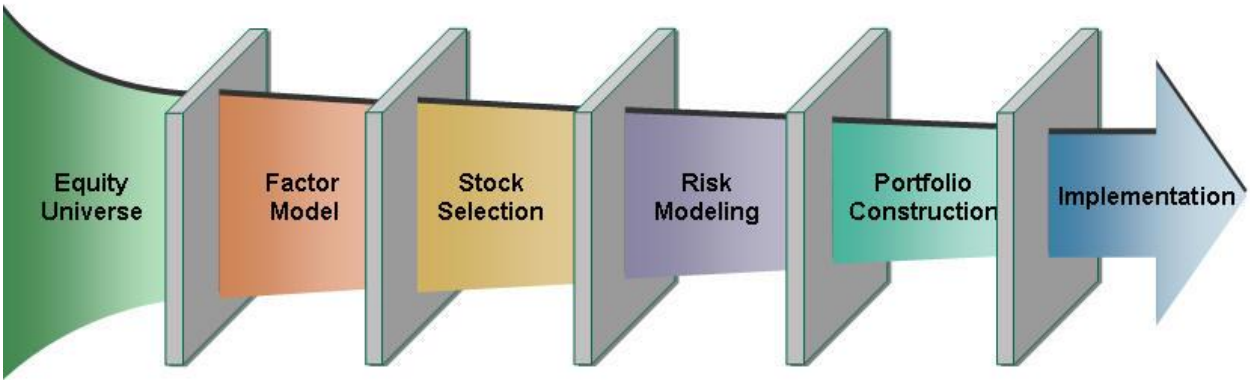
At the same time, always consider the outlook of your securities. If you suspect that those same overweighted growth stocks are ominously ready to fall, you may want to sell in spite of the tax implications. Analyst opinions and research reports can be useful tools to help gauge the

outlook for your holdings. And tax-loss selling is a strategy you can apply to reduce tax implications.

Remember the Importance of Diversification.

Throughout the entire portfolio construction process, it is vital that you remember to maintain your diversification above all else. It is not enough simply to own securities from each asset class; you must also diversify within each class. Ensure that your holdings within a given asset class are spread across an array of subclasses and industry sectors.

Portfolio Management Framework



OPTIMAL PORTFOLIO

Introduction

One of the factors to consider when selecting the optimal portfolio for a particular investor is degree of risk aversion. This level of aversion to risk can be characterized by defining the investor's indifference curve. This curve consists of the family of risk/return pairs defining the trade-off between the expected return and the risk. It establishes the increment in return that a particular investor will require in order to make an increment in risk worthwhile. Typical risk aversion coefficients range between 2.0 and 4.0, with the higher number representing lesser tolerance to risk. The equation used to represent risk aversion in Financial Toolbox™ software is

U = E(r) - 0.005*A*sig^2

where:

U is the utility value.

E(r) is the expected return.

A is the index of investor's aversion.

sig is the standard deviation.

What is a Portfolio ?

A combination of various investment products like bonds, shares, securities, mutual funds and so on is called a portfolio.

In the current scenario, individuals hire well trained and experienced portfolio managers who as per the client's risk taking capability combine various investment products and create a customized portfolio for guaranteed returns in the long run.

It is essential for every individual to save some part of his/her income and put into something which would benefit him in the future. A combination of various financial products where an individual invests his money is called a portfolio.

What is Portfolio Revision:

The art of changing the mix of securities in a portfolio is called as portfolio revision.

The process of addition of more assets in an existing portfolio or changing the ratio of funds invested is called as portfolio revision.

The sale and purchase of assets in an existing portfolio over a certain period of time to maximize returns and minimize risk is called as Portfolio revision.

Need for Portfolio Revision

An individual at certain point of time might feel the need to invest more. The need for portfolio revision arises when an individual has some additional money to invest.

Change in investment goal also gives rise to revision in portfolio. Depending on the cash flow, an individual can modify his financial goal, eventually giving rise to changes in the portfolio i.e. portfolio revision.

Financial market is subject to risks and uncertainty. An individual might sell off some of his assets owing to fluctuations in the financial market.

Portfolio Revision Strategies

There are two types of Portfolio Revision Strategies.

- Active Revision Strategy

Active Revision Strategy involves frequent changes in an existing portfolio over a certain period of time for maximum returns and minimum risks. Active Revision Strategy helps a portfolio manager to sell and purchase securities on a regular basis for portfolio revision.

- Passive Revision Strategy

Passive Revision Strategy involves rare changes in portfolio only under certain predetermined rules. These predefined rules are known as formula plans. According to passive revision strategy a portfolio manager can bring changes in the portfolio as per the formula plans only.

What are Formula Plans:

Formula Plans are certain predefined rules and regulations deciding when and how much assets an individual can purchase or sell for portfolio revision. Securities can be purchased and sold only when there are changes or fluctuations in the financial market.

Formula plans help an investor to make the best possible use of fluctuations in the financial market. One can purchase shares when the prices are less and sell off when market

prices are higher. With the help of Formula plans an investor can divide his funds into aggressive and defensive portfolio and easily transfer funds from one portfolio to other.

Aggressive Portfolio

Aggressive Portfolio consists of funds that appreciate quickly and guarantee maximum returns to the investor.

Defensive Portfolio

Defensive portfolio consists of securities that do not fluctuate much and remain constant over a period of time. Formula plans facilitate an investor to transfer funds from aggressive to defensive portfolio and vice a versa.

Samples to include in a portfolio

- Activities that demonstrate the completion of a topic of study, such as a report
- Projects (or photographs of the projects) on topics of study
- Graphs of reading or math drill rates
- Audio cassettes of oral reading
- Video cassettes of oral presentations
- Worksheets or workbook pages
- Teacher-made tests
- Written compositions and/or journals
- Reading lists
- Parent/teacher observations and anecdotal records
- Choosing an Evaluator

The evaluation is to be done by a certified teacher and the certification number is to be submitted along with the narrative. The evaluator will ultimately determine what specifically he/she will want to look at in order to make an evaluation of the progression of skills. Therefore, it would be prudent to make contact with your evaluator early in the school term and work together in preparation of the portfolio.

Submitting the Narrative

The West Virginia Code specifies that a narrative is to be provided to the county superintendent indicating that a portfolio of samples of the child's work has been reviewed and that the child's academic progress is in accordance with the child's abilities. The narrative should incorporate an accounting of the child's academic progress in relation to his ability level. While one portion of the portfolio may be evaluated at a particular ability level, other subject areas may require evaluation at other levels. West Virginia law does not require evaluation of social experiences. Your evaluator should focus solely on academic progress.

The narrative is to include a statement about the child's progress in the areas of reading, language, mathematics, science and social studies and is to note any areas which, in the professional opinion of the reviewer, show need for improvement or remediation.

Under any of the four assessment options identified in the state law, if a child does not make acceptable progress for the year, the next step is that the home schooling family "shall initiate a remedial program to foster acceptable progress." So the use of the term "remediation" in the evaluator's directive to note any of the subjects needing "improvement or remediation" raises the question of whether the evaluator, by so doing, is identifying the child as having made unacceptable progress for the year. In order to avoid confusion with county superintendents on this issue, we recommend the following approach.

If the evaluator believes that the student has successfully met the standard of "academic progress in accordance with the child's abilities" for all five subject areas, a clear statement to that effect should be included in the portfolio narrative. This should clearly establish that the evaluator considers the child to have made acceptable progress for the year according to the standard in the law. If the evaluator then goes on to discuss areas needing improvement, we recommend not using the terms "remedial" or "remediation", so as not to confuse the issue of the evaluator's overall assessment of acceptable progress. Conversely, if the evaluator determined that, in his or her professional opinion, the child did not meet the standard of achievement in accordance with ability, a clear statement to that effect would be included, along with identification of the subject areas needing remediation.

Whether you choose achievement testing or portfolio evaluation, the main concern should be how much worthwhile information each will give you in regard to your child's academic progress. Results from your choice should help you evaluate how to move your child along a continuum of skills toward a higher degree of proficiency. Choosing a method simply to meet the requirements of the law in the easiest way possible would be cheating ourselves and our children of some valuable feedback. While parents do know their children better than a portfolio evaluator or a testing instrument, it is natural to be biased and subjective in our evaluations. We invest far too much time, effort and resources into our children's education to overlook an opportunity for evaluating not only our children's progress, but also our teaching methods.

Our intent is to broaden your knowledge of the assessment methods available to us by West Virginia law. The law is very vague in many areas, and it is not CHEWV's intent to regulate these areas or to give you specifics that you must adhere to. Please consider them as recommendations as you seek an appropriate assessment tool.

Portfolio Limitations

Managing portfolios is more involved and complex than testing. They require much effort, thought, and detailed work in their preparation. Portfolio assessments entail human judgments. The progress of your child's academic skills is at the discretion of your evaluator. Weaknesses and learning gaps are more difficult to ascertain because of the nature of the portfolio.

Portfolio Benefits

Portfolios provide an opportunity to give a broad picture of your child's learning and academic progress. Portfolio evaluation enables those who have difficulty with testing to give evidence of academic learning. Portfolio assembly affords you the opportunity to examine results of your instruction, both in detail and in retrospect. Portfolio development assures a built-in audience (the evaluator) for your child, and can be very motivating for him.

UNIT – IV

1. The _____ is a description of how rational investors should build efficient portfolio and select the optimal portfolio

a). CAPM b). APT c). Option pricing theory **d). Portfolio theory**

2. Risk is measured as a variability in _____.

a). Principle **b). Return** c). Safety d). Return and Safety

3. The _____ derives the relationship between the expected return and risk of individual securities and portfolios

a). CAPM b). APT c). Option pricing theory d). Portfolio theory

4. Investors attempt to reduce the variability of returns through _____ of investments.

a). Concentration b). Sectorisation c). Indexation **d). Diversification**

5. When a trend reverses and begins to rise, a technical analyst would recommend _____ of a share.

a). Purchase b). Sale c). Hold d). Hedge

6. According to Dow Theory, the third movement is _____.

a). Long term movement **b). Day to day fluctuations** c). Correction

d). Short term movement

7. A bull market is market where the prices are having _____ movements.

a). Downward **b). Upward** c). Cyclical

d). Flat

8. Balanced funds are typically a portfolio of _____.

a). Equities b). Bonds **c). Equities and Bonds**

d). Commodities

9. When a trend reverses and begins to fall, a technical analyst would recommend _____ of a share.

a). Purchase b). **Sale** c). Hold d). Both purchase and sales

10. Support occurs when price is _____.

a). Falling but bounces back b). Increases but reverses

c). Falling continuously d). Increasing continuously

11. Determining the expected returns and risk of different portfolio is called _____.

a). Return analysis b). Risk analysis c). Risk return analysis **d). Portfolio analysis**

12. The interest payment stated as a percentage of the maturity value of a bond is _____.

a). Coupon rate b). Interest rate c). Maturity rate d). Bond rate

13. Growth funds are typically a portfolio of _____.

a). Bonds b). Equities **c). Money market instruments**

d). Preference shares

14. A Bear market is market where the prices are having _____ movements.

a). Downward b). Upward c). Cyclical d). Flat

15. According to Dow theory, the formation of higher bottoms and higher tops indicate _____.

a). Bearish trend b). **Bullish trend** c). Flat market d). Cyclical market

PART - B

1. Explain the concept of Company Analysis with suitable illustration?
2. Elucidate the difference between Fundamental Analysis and Technical Analysis?
3. Explain the Techniques used in analyzing a Company's Performance?
4. Enumerate the difference between Fundamental Analysis and Technical Analysis?
5. Enumerate the constituents of Company Analysis.
6. Explain the concept of industry life cycle. Describe the different stages in the industry life cycle.
7. Explain the Dow Theory with suitable example?
8. Describe the chart patterns that help to identify trend reversal.
9. Enumerate Dow Theory and Odd Lot Theory used in Technical Analysis?
10. Explain the way in ratio analysis an Indicator of a company's growth with example?

KARPAGAM ACADEMY OF HIGHER EDUCATION
(DEEMED TO BE UNIVERSITY)
(ESTABLISHED UNDER SECTION 3 OF UGC ACT 1956)
DEPARTMENT OF COMMERCE
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT
UNIT V

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
1	The physical assets are ----------	debentures	shares	other securities	gold	gold
2	Asset mix means the ----------	proportion of stock	proportion current asset	proportion of liability	proportion of profits	proportion of stock
3	A proper mix means ----------	assets	asset and liability	stock and bonds	liability	stock and bonds
4	the first and foremost factor contributing to portfolio management is	timing of investment	planning	performance appraisal	close monitoring of shares	planning
5	Timing of investment is an important factor in	portfolio management	economic forecaste	industry analysis	company analysis	portfolio management
6	Diversification reduces ----------	inflation risk	market risk	interest rate risk	unique risk	unique risk
7	Which one of the following is not an efficient portfolio?	portfolio which gives the highest return at a particular level of risk	portfolio which gives minimum risk for given levels of return	portfolio which gives a higher return at the same risk or lower risk	portfolio which gives lower return at the lower risk	portfolio which gives lower return at the lower risk

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
8	Corner portfolio is one with ----------	lowest return and risk combination	nil return	excess return	unexplained variance	lowest return and risk combination
9	Shares having betas less than 1 can be said to be	defensive	aggressive	neutral	appropriation	aggressive
10	Capital Market Line is firstly initiated by	Mohsin	Linter	Markowitz	William Sharpe	William Sharpe
11	The most favourable portfolio is the proficient portfolio with the	lowest risk	highest risk	highest utility	least investment	highest utility
12	A main difference among real and nominal interest proceeds is that	real returns adjust for inflation and nominal returns do not	real returns use actual cash flows and nominal use expected cash flows	real interest adjusts for commissions and nominal returns do not	real returns show the highest possible return and nominal returns show the lowest possible returns	real returns adjust for inflation and nominal returns do not
13	_____ includes portfolio which gives more return for the same level of risk or same return with lesser level of risk	efficient frontier	baumel's model	sharpe's model	portfolio selection	efficient frontier
14	In a two-stock portfolio, the minimum attainable risk and the lower return would be _____ portfolio	investment portfolio	sharpe's portfolio	corner	efficient portfolio	corner
15	_____ model is based on security's return relationship with the index return	sharpe	baumel's model	portfolio selection	efficient frontier	portfolio selection

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
16	A number of portfolio models have been developed for choosing an	sharpe's model	optimal portfolio	capital asset pricing model	possible portfolio	optimal portfolio
17	Sharpe's portfolio model is a	single index model	double index model		past index model	single index model
18	Investors are generally	rational	irrational	neutral	optimal	rational
19	An aggressive policy is one which places more emphasis on the	yield of securities	principal of securities	loss of securities	types of securities	yield of securities
20	Defensive policy lays much emphasis on	growth of securities	yield of securities	types of securities	safety of invested securities	safety of invested securities
21	aggressive defensive policy lays emphasis on a balances porfolio constructed with varied	growth of securities	yield of securities	types of securities	safety of invested securities	types of securities
22	Income vs growth policy resolves the conflicting issues between	fixed income and fixed capital	current income or capital gains	bonds and debentures	shares and public deposits	current income or capital gains
23	A sound portfolio management should ensure	selection of securities	liquidity of securities	transferability of securities	marketability of securities	marketability of securities

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
24	The marketability of a security depends upon the _____ of the market for it	risk and return	price and size	investors	under price	price and size
25	The size of the market is further affected by the fact whether the security is ____	over-priced	average priced	midium priced	average or midium priced	over-priced
26	The risk in average individual stock can be reduced by placing the individual stock in ---------	low risk portfolio	diversified portfolio	undiversified portfolio	high risk portfolio	diversified portfolio
27	The expected returns weighted average on assets in the portfolio is considered as	weighted portfolio	expected return on portfolio	coefficient of portfolio	expected assets	expected return on portfolio
28	_____means combination of financial assets and physical assets	portfolio	evaluation	portfolio construction	diversification	portfolio
29	_____ deals with the selection of optimal portfolios by rational risk averse investors	risk management	portfolio management	portfolio construction	debt instrument	portfolio management
30	_____involves a shift from one stock to another or from stock to bond and vice versa in portfolio composition	risk management	portfolio management	portfolio construction	portfolio revision	portfolio revision
31	The policy which lays emphasis on safety of principal invested in securities is	defensive policy	aggressive policy	aggressive defensive policy	growth policy	defensive policy

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
32	Growth policy in portfolio gives priority to	current income of the portfolio	capital appreciation of the portfolio	balanced portfolio construction	tax savings	capital appreciation of the portfolio
33	The single index model is widely employed to allocate investments in the portfolio among	equity shares	debt instruments	derivatives	revision	equity shares
34	portfolio diversification mangement diversification is the technique of reducing_____in a portfolio	stability	evaluation	risk	return	risk
35	Bonds issued by the _____ are highly safe as they are supported by the tax paying capacity of the whole nation	central government	state government	public	industry	central government
36	A security is regarded_____ when it can be disposed off at short notice and without any monetary loss	portfolio	liquid	scrips	industry data	liquid
37	The first and foremost step in the portfolio management process is the _____	identification of objectives and constraints	selection of the asset mix	portfolio execution	portfolio revision	identification of objectives and constraints
38	Portfolio management is the process of selecting a bunch of	current assets	long term asset	securities	debt instrument	securities
39	Portfolio means a combination of	financial assets and physical assets	short term assets	long term assets	very short term assets	financial assets and physical assets

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
40	The financial assets are ----------	shares	silver	real estate	gold	shares
41	A good investment portfolio consists of securities whose prices remain reasonably	diversify	stable	not stable	over valued	stable
42	Liquidity is another important principle that governs the _____ for the investor	transfer securities	yield securities	invested securities	selection of securities	selection of securities
43	The value of shares fluctuates more than that of	debentures	bonds	gold	real estate	bonds
44	Instituional investors are	commercial bank	central government	state government	semi government	commercial bank
45	Portfolio managers should continuously evaluate the	management	liquidity	portfolio performance	industry performance	portfolio performance
46	A proper decision on _____ of investment would always fetch maximum gains from investment	planning	timing of investment	portfolio revision	performance appraisal	timing of investment
47	Portfolio management deals with the selection of optimal portfolio by	rational risk averse	irrational risk averse	rational and irrational	various assets	rational risk averse

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
48	Portfolio revision generally involves a shift from	stock to bond	assets or revenue	assets to liability	stock to risk	stock to bond
49	Security analysis depends on the	sources of information	price	average return	equity	sources of information
50	Financial hazard is most related with	the use of equity financing by corporations	the use of the debt financing by corporations	equity investments held by corporations	debt investment held by the corporations	the use of the debt financing by corporations
51	In order to settle on the compound growth rate of an investment over period, an investor determine the	geometric mean	calculus mean	arithmetic mean	arithmetic median	geometric mean
52	Investors should be agreeing to invest in riskier investments merely	if the return is short	if there are no safe alternatives except for holding cash	if the expected return is adequate for the risk level	if there are true speculators	if the expected return is adequate for the risk level
53	Hold two securities as an alternative of will not decrease the hazard occupied by an investor if the two securities are	perfectively positive correlated	perfectively negative correlated	no correlation	all of the answer correct	perfectively positive correlated
54	Which type of market efficiency declares that current security prices totally reflect all information, equally public and private	Weak	Semi-strong	Strong	A,B and C are wrong	Strong
55	In Capital Market Line every investment is	infinitely divisible	finitely divisible	a & b	all of the answer correct	infinitely divisible

S.NO.	QUESTION	OPTION 1	OPTION 2	OPTION 3	OPTION 4	ANSWER
56	Superior portfolio is not basically a collection of individually	good portfolio	good investments	negative securities	all of the answer correct	good investments
57	Investments would grade the uppermost with regard to protection is	government bonds	common stock	preferred stock	real estate	government bonds
58	Tracking error is defined as	the difference between the returns on the overall risky portfolio versus the benchmark return.	the variance of the return of the benchmark portfolio	the variance of the return difference between the portfolio and the benchmark	the variance of the return of the actively-managed portfolio	the difference between the returns on the overall risky portfolio versus the benchmark return
59	If a portfolio manager consistently obtains a high Sharpe measure, the manager's forecasting ability _____.	is above average	is average	is below average	does not exist	is above average
60	Active portfolio management consists of _____.	market timing	security analysis	indexing	market timing and security ananlysis	market analysis and security analysis
61	Perfect timing ability is equivalent to h	a call option	a futures contract	a put option	a commodities contract	a call option

Reg No …….

[17CMP205B / 17CCP205B]

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University Established u/s 3 of UGC Act 1956)

COIMBATORE- 641 021
FIRST INTERNAL EXAMINATION, FEBRUARY- 2018

I M.COM / I M.COM (CA) - SECOND SEMESTER

SECURITY ANALYSIS AND PORTFOLIO MANAGEMNET

Time: 2 Hours **Maximum: 50 Marks**

Date : 02-02-2018

PART - A (20X 1 = 20 Marks)

CHOOSE THE CORRECT ANSWER

1. Investments are the
   a. Net additions made to the nation's capital stocks.
   b. Person's commitment to buying a flat or house
   c. Employment of funds on assets to earn returns
   d. Employment of funds on goods and services that are used in the production process.
2. To frame the investment policy the investor should have
   a) Knowledge about the company & brokers
   b) Investible funds
   c) Knowledge about the investment alternatives
   d) Knowledge about the capital markets
3. The Stock is
   a) Made up of small units of equal values are called shares.
   b) Expressed in terms of money
   c) Expressed in terms of number of shares
   d) Fully paid up and partly paid up shares
4. Zero coupon bond has its origin in
   a) The US Securities Market
   b) Wall Street
   c) Japan's Security Market
   d) Dalal Street
5. The aggressive investor buys more of
   a) Money Market Instrument b) Gold

c) Equity Shares d) Options and Futures

6. Which of the following is not a money market security?
   a) Treasury bills b) National Savings Certificate
   c) Certificate of Deposit d) Commercial Paper
7. Commercial papers are issued for a minimum period of
   a) 7 Days b) 15 Days
   c) 1 Month d) 3 Months
8. Certificate of deposit is issued in multiples of
   a) Rs. 5 Lakh b) Rs. 10 Lakh
   c) Rs. 1 Lakh d) Rs. 25 Lakh
9. This particular scheme helps in deferring the tax payment
   a) Public Provident Fund b) National Savings Scheme
   c) National Savings Certificate d) Life Insurance Scheme
10. Interval Fund is
   a) Index Fund b) Open End Fund
   c) Closed End Fund d) Combination of both open end and closed end
11. At present the par value of the share is
   a) Fixed one b) Variable
   c) Equal to 10 d) Equal to 5
12. The minimum number of shares to be applied for is
   a) 100 b) 200
   c) 300 d) Any lot fixed by the issuer
13. ASBA means
   a) Asset Blocked Bank Account
   b) Asset Supported Bank Account
   c) Asset in State Bank Account
   d) Applications Supported by Blocked Amount
14. In a private placement, Shares are offered through
   a) A letter of offer b) Prospectus
   c) Brokers d) Investment Bankers
15. A stock broker should have at least a
   a) High School Certificate b) Graduation Certificate
   c) Post Graduation Certificate d) A degree in Management
16. The sensex has
   a) 25 stocks b) 30 stocks
   c) 33 stocks d) 35 stocks
17. The NSE- Nifty base period is
   a) 1992 b) 1993
   c) 1994 d) 1995
18. Premium margin is collected from traders in

a) Equity Market
b) Government Securities Market
c) Debt Market
d) Derivative Market

19. One of the following factors leads the activity of stock markets
a) Money Supply
b) Per Capita Income
c) Unemployment Rate
d) Manufacturing and Trade

20. Lagging Indicator is
a) Gross Domestic Product
b) Sensex
c) Unemployment Rate
d) Interest Rate

PART - B (3X2=6 Marks)

ANSWER ALL THE QUESTIONS

21. Write short note on Capital market?
22. Define Investment
23. Write a note on Listings of Securities?

PART - C (3X8=24 Marks)

ANSWER ALL THE QUESTIONS

24. a) Discuss the Role of Capital Market for Economic Growth of India.

(OR)

b) Explain various types of Risk in Capital Markets.

25. a) What are the various Mechanisms of trading in Stock Exchange in India?

(OR)

b) Explain the functions of SEBI in Capital Market.

26. a) Difference between Economic Analysis and Industry Analysis

(OR)

b) Enumerate the role of OTCEI in the Capital Markets.

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Reg. No.....

[10CMP301/10CCP301]

KARPAGAM UNIVERSITY

(Under Section 3 of UGC Act 1956)
COIMBATORE – 641 021
(For the candidates admitted from 2010 onwards)

M.Com. DEGREE EXAMINATION, NOVEMBER 2011

Third Semester

COMMERCE / COMMERCE (COMPUTER APPLICATIONS)

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

3 hours Maximum : 60 marks

PART – A (20X ½ = 10 Marks)
Answer ALL the Questions

---- is the employment of funds
Investment b. Speculation c. Gambling d. sale

portfolio is a _____ of assets
Concentration b. Combination c. Indicator Private companies d. Underlying

------ refers to the possibility of incurring a loss in a financial transaction
Capital gains b. Risk c. Uncertainty d. Contingencies

------ is an involvement of funds of high risk
Investment b. Speculation c. Gambling d. Trading

A long term fund allocation is termed as ----------
Speculation b. Investment c. Gambling d. Trading

A short term holding is associated with trading is called ----------
Speculation b. Investment c. Gambling d. Trading

------- written against an owned stock position
a. Covered b. Uncovered c. Spread d. Future

---------- is based on tips, removers and hunches
a. Speculation b. Investment c. Gambling d. Sales

Investor requires ----------in his investments to meet emergencies is based on tips, removers and hunches
a. Stability b. Liquidity c. Tangibility d. Flexibility

10. Building machinery & land are considered as ---------
a. Tangible properties b. Intangible properties c. Movable property d. Current asset

11. --------- have no fixed return or maturity date
a. preference shares b. equity shares c. debentures d. Deposits

12. The terminal value of real estate is ----------
a. certain b. uncertain c. Minimum d. Fixed

13. ---------- represent the financing of real estate
a. securities b. commodities c. Speculation d. Gambling

14. The following are the convertible securities ---------
a. preference shares b. Public deposit c. equity shares d. Real estate

15. --------- are the integral part of an investment decision
a. risk b. uncertainty c. Risk and uncertainty d. certainty

16. --------- risk is also called as operating risk
a. financial risk b. business risk c. market risk d. political risk

17. --------- risk is associated with day to day operations of enterprise
a. political risk b. financial risk c. business risk d. Market risk

18. Certificate of Deposit is a certificate issued by---------to depositors
a. RBI b. Banks c. Government d. Corporation

19. The borrowing of Money among banks is called ----------
a. Call money b. Put money c. Borrow money d. Money plus

20. The interest rate on commercial paper is determined by the ---------
a. Stock Market b. Government c. RBI d. SEBI

PART B (5 X 4= 20 Marks)
Answer ALL the Questions

21. a. Differentiate between Real Assets and Financial Assets.

Or

b. The following information is available in respect of the return from security 'X' under different economic conditions:

Economic Conditions	Return	Probability
Good	20%	0.1
Average	16%	0.4
Bad	10%	0.3
Poor	3%	0.2

Find out the expected return of the security and the risk associated with that.

a. Briefly explain about various types of equity issues.

Or

b. Write a short note on "Trading procedure at the Stock Exchange".

a. Mention the various economic forecasting Techniques.

Or

b. What is Industry Life Cycle?

a. How is Technical Analysis is different from Fundamental analysis?

Or

b. What is Exponential Moving Average?

a. What is Rupee Cost Average?

Or

b. Following information is available in respect of two securities X and Y. Find out the expected return and variance of the portfolio consisting of 40% and 60% of Y.

	Expected Return	σ
X	15%	50%
Y	20%	30%
ρ_{xy}		-0.45

PART C (3 x 10 = 30 Marks)
Answer any THREE Questions

Classify the risk and explain.

Describe the objectives and functions of SEBI.

XYZ Ltd. has investment in 3 companies A Ltd., B Ltd., and C Ltd., Following information is available in respect of these investments.

Company	Investment (Rs.)	β
A Ltd.	6,00,000	1.3
B Ltd.	3,00,000	1.4
C Ltd.	1,00,000	0.9

Expected return on the market portfolio is 15% and the risk – free rate of interest is 6%. Find out the expected β and the return of the portfolio.

Explain the various types of charts used in Technical analysts to predict the future behaviour price.

Discuss about Portfolio Management process.

Reg. No.....

[10SDCCP201/11SDCCP201/12SDCCP201]

KARPAGAM UNIVERSITY

(Under Section 3 of UGC Act 1956)
COIMBATORE – 641 021
(For the candidates admitted from 2010 onwards)

SCHOOL OF DISTANCE EDUCATION

M.Com DEGREE EXAMINATION MAY 2014

COMMERCE (COMPUTER APPLICATIONS)

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Time: 3 hours Maximum : 100 marks

PART - A (5 x 8 = 40 Marks)
(Answer Any FIVE of the Following Questions)

1. Explain different types of securities

2. What is money market and instrument of money market?

3. Write a note on new issue market?

4. Explain the features of preference shares

5. What is hybrid securities

6. What are the forecasting techniques

7. What are the market indicates in capital market

8. Explain exponential moving average

PART - B (3 x 20 = 60 Marks)
(Answer Any THREE of the Following Questions)

9. Recent development of capital market in India- Discuss

10. Write a essay on OTCEI

11. Discuss on various asset pricing theories

12. Difference between technical analysis and fundamental analysis- Discuss

13. Discuss the method of portfolio construction with chart

Reg. No.....

[13CMP302/13CCP302]

KARPAGAM UNIVERSITY

(Under Section 3 of UGC Act 1956)
COIMBATORE – 641 021
(For the candidates admitted from 2013 onwards)

M.Com. DEGREE EXAMINATION, NOVEMBER 2014

Third Semester

COMMERCE/COMMERCE (COMPUTER APPLICATIONS)

INVESTMENT MANAGEMENT

e: 3 hours Maximum : 60 marks

PART – A (10 x 2 = 20 Marks)
Answer any TEN Questions

hat is the Money Market?
efine Investment
ort note on: Mutual funds
efine Company Analysis
hat is the need for Industry Analysis?
umerate one important stages of Industry Analysis
hat is meant by Asset pricing theories?
rite any one factors affect by Economic Analysis.
ow do APT and Option Pricing Theories differ from each other?
What is meant by trend line?
What is Oscillators?
Write short note on Technical Analysis
What is meant by portfolio?
Write short note on portfolio revision
What is meant by portfolio selection?

PART B (5 X 8= 40 Marks)
Answer ALL the Questions

a) Briefly trace the history of Stock Market in Indian

Or

b) Explain the functions of Secondary market

a) How is a fundamental analysis useful to a prospective investor?

Or

b) Explain the factors to be taken into account for Company Analysis.

18. (a) What are Charts? How are they interpreted in technical analysis?

Or

(b)Discuss the Odd-lot theory and importance in technical analysis.

19. (a) Define portfolio. Explain the methods of portfolio construction

Or

(b) Explain the Investment Diversification.

20. **Compulsory : -**

Is government held by various types of securities? Generally discuss it.

Reg. No.....

[10CCU601]

KARPAGAM UNIVERSITY

(Under Section 3 of UGC Act 1956)
COIMBATORE – 641 021
(For the candidates admitted from 2010 onwards)

B.Com. DEGREE EXAMINATION, APRIL 2013

Sixth Semester

COMMERCE (COMPUTER APPLICATIONS)

INVESTMENT MANAGEMENT

Time: 3 hours Maximum : 60 marks

PART – A (20X ½ = 10 Marks)
Answer ALL the Questions

1. ---------- is an activity that is engaged in by people who have savings.
   a. Investment b. Finance c. Provision d. Reserve.

2. Putting money in a private business is a ----------.
   a. Financial Investment b. Economic Investment c. Business Investment
   d. General Investment.

3. ---------- may relate to loss of capital, delay in repayment of capital, non – payment of interest etc.
   a. Maturity Period b. Risk c. Credit Worthiness of the Borrower d. Return.

4. ---------- are those where the individuals makes his own choice and investment decision.
   a. Provision b. Reserve c. Indirect Investment Alternatives
   d. Direct Investment Alternatives.

5. The activities of ---------- have been divided into three points. i.e Origination, Underwriting and Distribution.
   a. New Issue Market b. Stock Exchange c. Secondary Market d. SEBI.

6. Every stock exchange maintains a ---------- list containing the names of selected companies in whose securities the stock exchange will deal.
   a. Ready b. Official Trade c. Contract d. Cash.

7. The ---------- is a recognized stock exchange under Section 4 of the Securities Contract Regulation. Act, 1956.
   a. BSE b. NSE c. OTCEI d. SEBI.

8. SEBI was established in the year ----------.
   a. 1991 b. 1988 c. 1992 d. 1990.

9. ---------- is really a logical and systematic approach for estimating the future dividends and share price.
   a. Fundamental Analysis b. Secondary Analysis c. Stock Analysis
   d. Bond Analysis.

10. The ---------- has been defined as a homogeneous group of people doing a similar kind of activity.
    a. Economy b. Business c. Industry d. Office.

11. There are a lot of financial and non - financial aspects in ------ and the investor should familiarise with themselves .
    a. Economy b. Company c. Industry d. Technical.

12. ---------- who was editor of Wall Street Journal in 1990, is known for the most important theory developed by him with technical indicators.
    a. Walter b. Douglas McGregor c. Markowitz d. Charles Dow

13. Investors tend to invest in a group of securities. Such a group of securities is called --------.
    a. Portfolio b. Structure c. Savings d. Provision.

14. The process of combining securities in a portfolio is known as ----------.
    a. Construction b. Diversification c. Elimination d. Combination.

15. ---------- introduced new concept of risk management and its application to the selection of portfolios.
    a. Charles Dow b. Sharpe c. Harry M.Markowitz d. Walter.

16. William Sharpe made estimates of the expected return and ---------- of indexes, which are related to the country's economic activity.
    a. Correlation b. Variance c. Regression d. Averages.

17. The first mutual fund of our country is ----------.
    a. LIC b. ICICI c. UTI d. GIC.

18. Statutory Provident Fund was set up in the year ------.
    a. 1936 b. 1940 c. 1918 d. 1925.

19. ---------- has been started by the Government of India mainly to finance its economic development.
a. NSS b. ICICI c. RBI d. SBI.

20. ---------- is called an investment with an element of protection of life and an element of investment.
a. P.F b. NSS c. LIC d. UTI.

PART B (5 X 4= 20 Marks)
Answer ALL the Questions

21. a. Mention the objectives of investments?
Or
b. State the importance of financial system?

22. a. What do you mean by capital market? State its types.
Or
b. Describe the stages involved in trading in stock exchange?

23. a. Write a note on: Fundamental Analysis.
Or
b. Explain any two advantages of company analysis?

24. a. What is markowitz model?
Or
b. Explain the factors responsible for causing internal risk in investment?

25. a. Explain the kinds of investment alternatives?
Or
b. Write a note on: National savings certificate.

PART C (3 x 10 = 30 Marks)
Answer any THREE Questions

26. State the factors influencing for investments?

27. Distinguish between primary markets and secondary markets.

28. What are the factors affecting economic analysis?

29. Explain the principles of portfolio management?

0. State the objectives of UTI.
