

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PGDF-202

**BLOCK 1:
BUSINESS, PRIMARY AND
SECONDARY MARKET AND
ANALYSIS**



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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



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BLOCK 1: BUSINESS, PRIMARY & SECONDARY MARKET AND ANALYSIS

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BLOCK 1: BUSINESS, PRIMARY AND SECONDARY MARKET AND ANALYSIS

Block Introduction

Businesses are created by Entrepreneurs who put money at risk to promote a particular venture for the purpose of a profit. They vary in size from a one-person Sole Proprietorship to an international corporation having billions of dollars in assets and thousands of employees. See also business organization. Several stock exchanges exist throughout the country, the most prominent of which is the New York Stock Exchange. Fundamental analysis is about using real data to evaluate 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.

In this block, you will get knowledge about business and knowledge about shares and shareholders. The concept of primary and secondary market is well explained with features and characteristics. The block will detail about fundamental analysis where study of technical analysis with idea about systematic trading is shown. The knowledge about working and role of stock exchanges are detailed.

After studying this block, you will be able to understand correctly about how stock market and exchanges works with technical analysis. The concept of stock listing and types of stock exchanges it gives knowledge to student which will help them know economic conditions. The concepts of fundamental analysis of stock allow you to understand more about how stock works in secondary and primary market.

Block Objective

After learning this block, you will be able to understand:

- Concept of Share
- the Rights of Shareholder
- About working of Annual General Meeting
- Preferred Stock

Business,
Primary and
Secondary
Market and
Analysis

- Primary and Secondary Market Functions
- Importance of Stock Exchanges
- Listing of various Stock Exchanges
- Process of Stock Valuation
- Fundamental Analysis for Traders
- Characteristics of Technical Analysis
- The features of Efficient Market Hypothesis
- Working about Systematic Trading
- Ideology of Technical Analysis

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UNIT 1: BASIC FORMS OF BUSINESS

Unit Structure

1.0 Learning Objectives

1.1 Introduction

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1.3 Share

1.4 Knowing you're Rights as Shareholder

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1.0 Learning Objectives

After learning this unit, you will be able to understand:

- What is Business?
- About Shareholder
- Annual General Meeting
- Preferred Stocks

1.1 Introduction

In this unit we understand the concept business and shares. What are the rights of Shareholders?

- a. The occupation, work or trade in which a person is engaged: the wholesale food business.
- b. A specific occupation or pursuit: the best designer in the business.

Commercial, industrial, or professional dealings: new systems now being used in business. A commercial enterprise or establishment: bought his uncle's business. Volume or amount of commercial trade: Business had fallen off.

Commercial dealings; patronage: took her business to a trustworthy salesperson.

- a. One's rightful or proper concern or interest: "The business of America is business" (Calvin Coolidge).
- b. Something involving one personally: It's none of my business.

Serious work or endeavour: got right down to business. An affair or matter: "We will proceed no further in this business" (Shakespeare). An incidental action performed by an actor on the stage to fill a pause between lines or to provide interesting detail.

A part or portion belonging to, distributed to, contributed by, or owed by a person or group. An equitable portion: do one's share of the work. In any of the equal parts, into which the capital stock of a corporation or company is divided.

1.2 What is Business?

1. An organization or enterprising entity engaged in commercial, industrial or professional activities. A business can be a for-profit entity, such as a publicly-traded corporation, or a non-profit organization engaged in business activities, such as an agricultural cooperative.
2. Any commercial, industrial or professional activity undertaken by an individual or a group.
3. A reference to a specific area or type of economic activity.
 - a. Businesses include everything from a small owner-operated company such as a family restaurant, to a multinational conglomerate such as General Electric.
 - b. To "do business" with another company, a business must engage in some kind of transaction or exchange of value with that company.
 - c. In this sense, the word "business" can be used to refer to a specific industry or activity, such as the "real estate business" or the "advertising business".

Commercial enterprise, profession, or trade operated for the purpose of earning a profit by providing a product or service; also called business enterprise. Businesses are created by Entrepreneurs who put money at risk to promote a particular venture for the purpose of a profit. They vary in size from a one-person Sole Proprietorship to an international Corporation having billions of dollars in assets and thousands of employees. See also Business Organization.

Quotes About: Business

"There is nothing more requisite in business than dispatch." - Joseph Addison.

"We are all manufacturers. Making good, making trouble, or making excuses." - H. V. Adolt.

"Treat employees like partners, and they act like partners." - Fred A. Allen.

"Anybody can cut prices, but it takes brains to produce a better article." - P. D. Armour.

"Frankly, I don't want to see a rapid upturn. I want it to hold until some of these idiotic competitors go bust." - Joe Bamford.

"Nobody ever lost money taking a profit." - Bernard M. Baruch.

In economics, a business is a legally-recognized organizational entity existing within an economically free country designed to sell goods and/or services to consumers, usually in an effort to generate profit.

It is studied that capitalist economies carry private owned businesses that forms to get profit and grows the wealth of owners. This business model works in contrast with socialistic systems having government, public or worker ownership.

Business Studies involves idea about management of individuals which are arranged to control collective productivity toward doing certain creative and productive task that is taught as part of academic subject in schools.

Basic Forms of Ownership

Although forms of business ownership vary by country and local government, there are several generic forms of business ownership:

- **Sole proprietorship:** A sole proprietorship is a business owned by one person. In this, proprietor operates by their own or can manage with somebody. The proprietor has full and unlimited personal liability of debts occurred in the business.
- **Partnership:** A partnership is a combination or grouping of two or more than two people having common goal of creating and developing profit for the company. In this, every partner carries complete and unlimited personal liability of debts occurred. Partnership can be general partnerships, limited partnerships and limited liability partnerships.
- **Corporation:** A business corporation is a for-profit, limited liability entity that has a separate legal personality from its members. A corporation is owned by multiple shareholders and is overseen by a board of directors, which hires the business's managerial staff.
- **Cooperative:** It relates to cooperative business where profit, limited liability entity varies from corporations where members as opposes shareholders who share decision making authority.

Classifications

Business can be categorized in many forms. An important focus on primary profit generating activities of business can be:

- Generating products from raw materials or component that can be sold out in open market to have profit.

- Service industry carries vague goods or services for generating profit by charging labour services to government, businesses or consumers.
- Business distribution involves Retailers and Distributors that serve as middle men which helps in transferring and distributing goods produced by manufacturers for profit.
- The goods produced in case of mining industry are distributed and spread across for earning profit.
- Financial businesses involves with the help of banks, insurance agencies and other companies that get business through investment and capital.
- Information businesses can be obtained from resale of intellectual property which includes movie studios, publishers and packaged software.
- Utilities services like heat, electricity or sewage treatment are normally chartered by government.

Apart from such discussed, there are several other divisions and subdivisions of businesses which can be:

Organization

It is studied that many businesses performs similar work in spite of difference in size, structure or strength. Such objectives can be organized into departments which can be:

- **Accounting**

For doing all sort of financial reporting, control and raising of capital for running the business.

- **Human Resources**

The main job of this department is to hire, payroll, benefits, etc.

- **Marketing and sales**

It concern with selling business goods or services to customer and maintains relationships with customers.

- **Marketing**

It concern with product promotion, interest, demand or services and position them in market.

- **Sales**
It involves interaction with purchasers and involves in agreement buying products or services.
- **Operations**
It involves product services and deliveries.
- **Production**
Obtaining raw materials and framing it into goods on processing.
- **Customer service**
It involves services to customers who need help of goods or services.
- **Procurement**
Obtaining goods and services for business and are organized as: Strategic sourcing.
Find out business needs and plan for getting required raw materials and services for business.
- **Purchasing**
It involves processing of purchase orders and related transactions.
- **Research and Development**
Creating ideas on new products and finding viability.
- **Information Technology**
It manages business computer and data assets.
- **Communications/Public Relations**
It is responsible for communicating to people.
- **Administration**
It involves administrative support to prepare documents.
- **Internal Audit**
Checking and controlling internal organizational functions and reporting problems to Board of Directors for proper functioning of departments.

- **Management**

Management deals with study of working and operation of business.

- **Government regulation**

Most legal jurisdictions specify the forms of ownership that a business can take, creating a body of commercial law for each type.

- **Organizing a vehicle**

The major factors affecting how a business is organized are usually:

1. Scope and size of business with management and ownership anticipation. It is found that smaller business is more successful and convenient as compared with large business.
2. The private profit making businesses are different from government owned bodies where businesses are legally obliged to be organized.
3. It is found that there are certain corporations, limited liability partnerships, and specific types of business organizations which saves their owners from business failure occurs with separate legal entity having certain legal protections.
4. There are certain structures which are treated different in tax law having certain benefits.
5. Several business structures use more or less information public and bound to comply with different rules and regulations.

There are certain factors that are considered in deciding how to operate a business as:

1. General partners in partnership along with anyone who owns and operates business without having legal entity.
2. It is found that corporation needs to pay taxes. The tax systems has double taxation as the corporation pays tax on profit and after distribution of its profits to owners and individuals will think for dividends in income by imposing second layer of income tax.
3. In many places, the laws treat small corporations as different identity as compared to large ones. Small establishment are sometimes exempted from legal filing requirements or labour laws, which simplifies procedures in specialized areas.

4. There are certain possibilities to have investment from general public, the idea of "go public" which allow part of business to carry out by wider range of investors or public.

- **Commercial law**

Many transactions that are commercial are handled detailed and well-established body of rules which works for long period of time that governs the trade and commerce in Western civilization.

In particular businesses, the licenses are required by special laws which give entry to certain trades, occupations or professions, special education, or local governments. Many businesses works on ongoing special regulation that will be required for public utilities, investment securities, banking, insurance, broadcasting, aviation, and health care providers.

- **Capital**

To acquire money for business, there are many laws which comes into picture. With complicated laws and regulations that govern the offer and sale of investment securities requires disclosure of specific financial and data about business for buyers.

Businesses that have gone "public" are subject to extremely detailed and complicated regulation about their internal governance (such as how executive officers' compensation is determined) and when and how information is disclosed to the public and their shareholders. In the United States, these regulations are primarily implemented and enforced by the United States Securities and Exchange Commission (SEC). Other Western nations have comparable regulatory bodies.

In Thailand, for example, it is necessary to register a particular amount of capital for each employee, and pay a fee to the government for the amount of capital registered. There is no legal requirement to prove that this capital actually exists, the only requirement is to pay the fee. This is a typical example of a corrupt government using its power to create laws in order to steal money. Overall, processes like this are detrimental to the development and GDP of a country, but often exist in "feudal" developing countries.

- **Intellectual property**

It is an important aspect for business prospective which will save from competitors in order for company to stay profitable. It involves patents or copyrights or preservation of trade secrets. It safe guard business names, logos and branding techniques which results in benefit from trade marking.

- **Exit plan**

Businesses can be bought and sold. Business owners often refer to their plan of disposing of the business as an "exit plan." Common exit plans include IPOs, MBOs and mergers. After understanding meaning and structure of Business we now understand what is a share with the help of different Dictionary's?

Check your progress 1

1. _____ is a form of business where two or more people operate for common goal of making profit.
 - a. partnership
 - b. proprietorship
 - c. corporation
 - d. cooperative

1.3 Share

Following are the definitions for Share-

1. A part or portion belonging to, distributed to, contributed by, or owed by a person or group.
2. An equitable portion: do one's share of the work.
3. Any of the equal parts into which the capital stock of a corporation or company is divided.

Following are the reasons for share dividends-

1. To divide and parcel out in shares in apportion.
2. To participate in, use, enjoy, or experience jointly or in turns.
3. To relate (a secret or experience, for example) to another or others.
4. To accord a share in (something) to another or others: shared her chocolate bar with a friend.
5. To have a share or part: shared in the profits.
6. To allow someone to use or enjoy something that one possesses: Being in day-care taught the child to share.

A unit of ownership interest in a corporation or financial asset. While owning shares in a business does not mean that the shareholder has direct control

over the business's day-to-day operations, being a shareholder does entitle the possessor to an equal distribution in any profits, if any are declared in the form of dividends.

The two main types of shares are common shares and preferred shares. In the past, shareholders received a physical paper stock certificate that indicated that they owned "x" shares in a company. Today, brokerages have electronic records that show ownership details. Owning a "paperless" share makes conducting trades a simpler and more streamlined process, which is a far cry from the days were stock certificates needed to be taken to a brokerage before a trade could be conducted.

Check your progress 2

1. Shares are owned by:

- | | |
|-----------|-----------------|
| a. person | c. company |
| b. group | d. all of above |

1.4 Knowing you're Rights as Shareholder

1.4.1 Levels of Ownership Rights

It is found that there is a hierarchical structure of rights that carries three main classes of securities which are issued by companies: bonds, stock and common stock.

In case of common shareholder at the time of insolvency proceedings, it will be creditors who first get margin on company's assets so as to settle outstanding debts. So it is seen that the bondholders will crack first at those leftovers which is further followed by preferred shareholders along with common shareholders.

The rules of absolute priority and rights differ with class of security. The rights of bondholders are shown differently as bond agreement or indenture, displays a contract which exists among issuer and bondholder.

1.4.2 Risks and Rewards

As per liquidation preference, shareholders will be able to take more risk but they have more reward potential by means of which exposure to share price increases during success of company.

Common shareholder's nine main rights:

1. Voting Power on Major Issues

In this, the election of directors and proposals for changes which affects companies in such a way that results in mergers or liquidation. The part of voting will take place at company's annual meeting.

2. Ownership in a Portion of the Company

In case of business thrives, common shareholders having a part of something that has certain values shows claim on portion of assets which belongs to company. The profit generated by such assets is reinvested in additional assets for further return which result in increase in share value of stock.

3. Right to Transfer Ownership

The right to transfer ownership is ordinary where liquidity is provided by stock exchanges. It is a key factor which differentiates stocks from an investment like real estate. .

4. Dividend Entitlement

With claim on assets, a claim on profits is paid by company in form of dividend. Management has two options with profits: reinvested back into firm or paid out dividend.

5. Suing for Wrong Acts

Taking legal action against company is usually in form of a shareholder class-action lawsuit.

6. Corporate Governance

In addition to the six basic rights of common shareholders, it is vital that you thoroughly research the corporate governance policies of a company. These policies are often crucial in determining how a company treats and informs its shareholders.

7. Shareholder Rights Plan

Instead of name, such plan differs from normal shareholder rights which are shown by government. Shareholder rights plans outline rights of shareholder in Specific Corporation.

8. Sometimes There Are Little Extras

It is seen that shares are used to refer to stock of a corporation which shows ownership of other classes of financial assets like mutual funds. It is the units of stock that represents ownership in a corporation.

9. Proxy Voting Gives Shareholders Say

Prior to the general meeting of a company or mutual fund, shareholders will receive a package in the mail containing a variety of documents that report financial data and operations results and announce important issues - such as proposals for changes to the company's share structure or mergers and acquisitions. These are all matters that shareholders or unit holders, the true owners of the company or mutual fund, will vote on at the general meeting. If, however, a shareholder is not able to attend an annual (or special) meeting, he or she can vote on proposals by means of a proxy, one of the documents that is included in the pre-meeting mailing package.

i) The Purpose of Proxy Voting

Shareholder voting is the primary means by which shareholders can influence the company's or mutual fund's operations, its corporate governance, and even activities of social responsibility that may fall outside of financial considerations. It is therefore very important for shareholders to participate in the voting and make their decisions based on a full understanding of the information and legal documentation presented to them.

At shareholder meetings, investors with common shares (or mutual fund units) typically receive one vote per share (or unit), unless they own shares carrying additional voting provisions. The votes of shareholders who are absent from a meeting and have not used a proxy card bearing their signature are considered to be abstained--they count neither for nor against any proposal tabled at the meeting.

But proxy voting allows shareholders to vote when they can't attend a shareholder meeting, so investors are quite literally able to own and vote on

equities in companies and mutual funds that might be located and registered clear across the globe.

ii) Voting Proxies Electronically

In the age of the Internet, investors can not only buy and sell stocks online, but also vote their proxy statements. The entire documentation delivery process can be electronically automated with the use of various services such as EquiServe or Automatic Data Processing's (ADP's) ProxyVote. Official documentation is delivered to shareholders in electronic form, and then they log onto the system with a control number or personal identification number and vote for or against the resolutions presented.

iii) Proxy Voting Guidelines

The Internet also greatly assists shareholders in researching their decisions. Numerous institutional investors now post their voting decisions online prior to the meeting date, giving individual investors a chance to see where the large institutional shareholders stand on issues. These same institutions may also provide extensive explanations of their decisions by posting their 'proxy voting guidelines'. For example, institutions may cast their votes on criteria of long-term value, corporate accountability, responsibility, sustainability, and so forth.

The most proactive of institutional investors play a sort of champion role in keeping directors accountable for the resolutions that are introduced at important meetings. Not only will the institution establish its model proxy voting guidelines, but if a decision is initially unclear, it will seek to contact management directly to discuss a specific proposal, suggest more additional information from the company itself. For example, institution modifications to the nature of the proposal, or in extreme cases, urge the withdrawal of the proposal in its entirety. Such influence is generally held only by powerful institutional investors, making the institution's role in the proxy voting process invaluable.

iv) Innovations to the Proxy Voting System

In the wake of much-publicized corporate scandals perpetrated by the management and directors of various publicly-traded companies over the years, more consideration has been given to potential revisions of the proxy voting system--most significantly, the possibility of shareholders taking an active role in introducing resolutions to the proxy. These proposals are often termed "direct proxy access" and focus most prominently on the possibility

of allowing shareholders to nominate director candidates. On the one hand, this could bring fresh perspectives to the board of directors; but on the other hand, lack of experience (among other factors) could cause shareholders to nominate directors who are truly inappropriate for directorship.

Check your progress 3

1. In an organisation, the part of voting will take place at:

- | | |
|-------------------|------------------|
| a. annual meeting | c. board meeting |
| b. appraisals | d. none of above |

1.5 Board of Directors

A group of individuals that are elected as, or elected to act as, representatives of the stockholders to establish corporate management related policies and to make decisions on major company issues. Such issues include the hiring/firing of executives, dividend policies, options policies and executive compensation. Every public company must have a Board of Directors.

In general, the Board makes decisions on your behalf for the company in which you invest.

Most importantly, the Board of Directors should be a fair representation of both management and shareholder's interests, because too many insiders serving as directors will mean the board will make decisions more beneficial to management. On the other hand, possessing too many independent directors may mean management will be left out of the decision-making process and may cause good managers to leave in frustration.

Governing body of a corporation, elected by shareholders to represent their interests in managing the firm. Directors adopt the bylaws and operating rules of a corporation, appoint its operating officers, and set the stock dividend rate paid to shareholders. Directors of national banks are required to own shares of stock in the bank and are elected by shareholders at an organizational meeting before the bank opens for business, and at regular annual meetings afterwards. Most large corporations have a certain number of Inside Directors who are also officers of the firm, and outside directors who are elected from the community at large. Each Federal Reserve Bank is governed by a nine-member board elected by Member Banks that own stock in the Reserve Bank in that region of the country. These boards have three separate classes of directors, who are named to serve three-year

terms: Class a Director, representing the member banks, and are usually bankers; and Class B Directors and Class C Directors, representing the interests of business, labor, and consumers. Class A and Class B directors are elected by member banks in a Federal Reserve district; Class C directors are named by the Board of Governors of the Federal Reserve System. Directors appoint each Reserve Bank's president, and first vice president, who serve for five-year terms, and name the district's representatives to the Federal Advisory Council which advises the Board of Governors on policy issues relating to bank supervision and regulation.

Board of Directors

In relation to a company, a director is an officer (that is, someone who works for the company) charged with the conduct and management of its affairs. A director may be an inside director (a director who is also an officer or promoter or both) or an outside, or independent, director. The directors collectively are referred to as a board of directors. Sometimes the board will appoint one of its members to be the chair of the board of directors.

1.5.1 Classification

Directors are traditionally divided into executive directors and non-executive directors. Broadly, executive directors tend to be persons who are dedicated full-time to their role in relation to the management of the company. Non-executive directors tend to be "outsiders" brought in for their expertise, and to lend a more impartial view in relation to strategic decisions. Many corporate reforms in the late 1990s and early 2000s were focused on increasing the number and role of non-executive directorships in public companies in the belief that an impartial view was more likely to restrain corporate excess and egos and reduce the likelihood of another major corporate scandal. This view is not new; similar recommendations were made by the Cadbury Committee in the United Kingdom in 1992.

In practice, executive directors tend to dominate board meetings simply by virtue of their much greater familiarity with the company and its internal workings.

Some countries also classify persons who are not actually directors as either de facto directors, or "shadow" directors. A de facto director is a person who is not actually appointed as a director, but acts as if they were (often because they wrongly believe that they have been properly appointed as a director). A

"shadow" director is also not a director at all, but seeks to control the direction and management of the company without putting themselves forward as being able to do so.

1.5.2 History

In framing separate board of directors to handle company which occurred incrementally and indefinitely over legal history. With the beginning of 20th century, it assumes that general meeting was motto of a company, and board of directors serves as an agent of company which controls shareholders in general meeting.

1.5.3 Election and Removal

Legally, the appointment and removal of directors depends on the voting of shareholders that happens in general meeting. In such case, Director can only leave office in case of resignation or death. Sometimes many jurisdictions allows board of directors to appoint directors in order to fill vacancy that arises due to resignation or death of existing directors.

It is seen that it is difficult to remove director by resolution which held in general meeting. The legal systems will allow director to have right to receive special notice of resolution that state removal, in which the company supply a copy of proposal to director.

1.5.4 Exercise of Powers

Power to exercise by board of directors occurs in meetings. The legal systems allow notice that serves to all directors about such meetings and a quorum shows before any business origination. Normally a meeting is held without notice having been given is long as all of directors attend, but it has been held that a failure to give notice may negate resolutions passed at a meeting, as the persuasive oratory of a minority of directors might have persuaded the majority to change their minds and vote otherwise.

1.5.5 Duties

The directors exercise control and management over the company, but companies are running for sake of getting benefit of shareholders with which certain law imposes that carries strict duties on directors in relation to exercise their duties.

1.5.6 Remedies for Breach of Duty

In certain instance of jurisdictions, law provides various measures that occur in event of breach by directors of their duties:

1. Injunction or declaration
2. Damages or compensation
3. Restoration of the company's property
4. Rescission of the relevant contract
5. Account of profits
6. Summary dismissal

1.5.7 Failures

While the primary responsibility of boards is to ensure that the corporation's management is performing its job correctly, actually achieving this in practice can be difficult. In a number of "corporate scandals" of the 1990s, one notable feature revealed in subsequent investigations is that boards were not aware of the activities of the managers that they hired, and the true financial state of the corporation. A number of factors may be involved in this tendency:

- Most boards largely rely on management to report information to them, thus allowing management to place the desired 'spin' on information, or even conceal or lie about the true state of a company.
- Boards of directors are part-time bodies, whose members meet only occasionally and may not know each other particularly well. This unfamiliarity can make it difficult for board members to question management.
- CEOs tend to be rather forceful personalities. In some cases, CEOs are accused of exercising too much influence over the company's board.

- Directors may not have the time or the skills required to understand the details of corporate business, allowing management to obscure problems.
- The same directors who appointed the present CEO oversee his or her performance. This makes it difficult for some directors to dispassionately evaluate the CEO's performance.
- Directors often feel that a judgment of a manager, particularly one who has performed well in the past, should be respected. This can be quite legitimate, but poses problems if the manager's judgment is indeed flawed.
- All of the above may contribute to a culture of "not rocking the boat" at board meetings.

Because of this, the role of boards in corporate governance, and how to improve their oversight capability, has been examined carefully in recent years, and new legislation in a number of jurisdictions, and an increased focus on the topic by boards themselves, has seen changes implemented to try and improve their performance.

1.5.8 Sarbanes-Oxley Act

In the late 1700s, many houses consisted of a large room with only one chair. Commonly, a long wide board folded down from the wall, and was used for dining. The "head of the household" always sat in the chair while everyone else ate sitting on the floor. Occasionally a guest, who was usually a man, would be invited to sit in this chair during a meal. To sit in the chair meant you were important and in charge. They called the one sitting in the chair the "chair man." Today in business, we use the expression or title "Chairman" or "Chairman of the Board."

Check your progress 4

1. The interest of Board of Directors is for:
 - a. management
 - b. shareholder's
 - c. both a and b
 - d. neither a nor b

1.6 Annual General Meeting – AGM

A mandatory yearly meeting of shareholders that allows stakeholders to stay informed and involved with company decisions and workings.

1) Meaning and Definition

This yearly meeting is the single event whereby shareholders are able to gather and ask the board of director's questions pertaining to corporate health and strategy. Proper notice must be given to shareholders with regards to meeting times and agenda.

2) Annual general meeting

An Annual General Meeting (commonly abbreviated as AGM, also known as the annual meeting) is a meeting that official bodies, and associations involving the public (including companies with shareholders), are often required by law (or the constitution, charter etc. governing the body) to hold.

An AGM is generally held every year to inform their members of previous and future activities. In organizations run by volunteers or a paid committee, the AGM is generally the forum for the election of officers or directors for the organization.

It is an opportunity for the shareholders and partners to receive copies of the company's accounts as well as reviewing fiscal information for the past year and asking any questions regarding the decisions the business will take in the future.

In Great Britain, with effect from 1 October 2007 it will become optional for any private company to hold an AGM, unless its articles of association specifically require it to do so.

Check your progress 5

1. In companies, Annual General Meeting is normally conducted:
 - a. once in quarter
 - b. once in year
 - c. once in half yearly
 - d. once in two years

1.7 Preferred Stock

Capital stock having priority over a corporation's common stock in the distribution of dividends and often of assets.

A class of ownership in a corporation that has a higher claim on the assets and earnings than common stock. Preferred stock generally has a dividend that must be paid out before dividends to common stockholders and the shares usually do not have voting rights.

The precise detail as to the structure of preferred stock is specific to each corporation. However, the best way to think of preferred stock is as a financial instrument that has characteristics of both debt (fixed dividends) and equity (potential appreciation). It is also known as "preferred shares".

There are certainly pros and cons when looking at preferred shares. Preferred shareholders have priority over common stockholders on earnings and assets in the event of liquidation and they have a fixed dividend (paid before common stockholders), but investors must weigh these positives against the negatives, including giving up their voting rights and less potential for appreciation.

Stock that pays a fixed dividend and has claim to assets of a corporation ahead of common stockholders in event of liquidation. Preferred stock is sometimes called preference stock. Bank depositors have priority of claim over even preferred stockholders. Banks and bank holding companies have issued several classes of preferred stock, including perpetual preferred stock, which has no stated maturity date and is not redeemable by the holder; and limited life preferred stock, or preferred stock with a stated maturity of at least 25 years.

Under the Risk-Based Capital guidelines adopted by U.S. Banking regulatory agencies for bank holding companies and state chartered banks that are members of the Federal Reserve System, nonvoting preferred stock can be counted as part of a bank's core capital or Tier 1 capital. (Tier 1 capital must equal 4% of a bank's total assets. Preferred stock eligible for inclusion as Tier 1 capital can be no cumulative preferred stock, equal to 25% of common stock but not auction rate preferred stock, such as Money Market Preferred Stock.

This entry contains information applicable to United States law only.

Stock shares that have preferential rights to dividends or to amounts distributable on liquidation, or to both, ahead of common shareholders.

Preferred stock is given preference over common stock. Holders of preferred stock receive dividends at a fixed annual rate. The earnings of a corporation are applied to this payment before common stockholders receive dividends. If corporate earnings are insufficient for the fixed annual dividend, the preferred stock will absorb the total amount of earnings, and the common stockholders will be precluded from receiving a dividend. When corporate income exceeds the amount that is needed to pay preferred stockholders, the remainder is generally paid to common stockholders. In special situations, the remainder may be distributed pro rata to both classes of stock, in which case the preferred stock is said to "participate" with the common stock.

Preferred stock can be cumulative or non-cumulative. If it is cumulative and if the fixed dividend remains unpaid, it becomes a debit upon the surplus earnings of succeeding years. Accumulated dividends must be paid in full before common stockholders can receive dividends. When preferred stock is non-cumulative, its preference is extinguished by the failure of the corporation to have sufficient earnings to pay the fixed dividend in a given year.

Preferred stock, also called preferred shares or preference shares, is typically a higher ranking stock than common stock, and its terms are negotiated between the corporation and the investor.

Preferred stock may or may not carry voting rights, and may have superior voting rights to common stock. Preferred stock may carry a dividend that is paid out prior to any dividends to common stock holders. Preferred stock may have a convertibility feature into common stock. Preferred stock holders will be paid out in assets before common stockholders and after debt holders in bankruptcy. Terms of the preferred stock are stated in a "Certificate of Designation".

1.7.1 Rights

Unlike common stock, preferred stock usually has several rights attached to it:

- The core right is that of preference in the payment of dividends and upon liquidation of the company. Before a dividend can be declared on the common shares, any dividend obligation to the preferred shares must be satisfied.
- The dividend rights are often cumulative, such that if the dividend is not paid it accumulates from year to year.

- Preferred stock may or may not have a fixed liquidation value Par value associated with it. This represents the amount of capital that was contributed to the corporation when the shares were first issued.
- Preferred stock has a claim on liquidation proceeds of a stock corporation, equivalent to its par or liquidation value unless otherwise negotiated. This claim is senior to that of common stock, which has only a residual claim.
- Almost all preferred shares have a negotiated fixed dividend amount. The dividend is usually specified as a percentage of the par value or as a fixed amount. For example Pacific Gas and Electric 6% Series A preferred.
- Some preferred shares have special voting rights to approve certain extraordinary events (such as the issuance of new shares or the approval of the acquisition of the company) or to elect directors, but most preferred shares provide no voting rights associated with them. Some preferred shares only gain voting rights when the preferred dividends are in arrears for a substantial time.
- Usually preferred shares contain protective provisions which prevent the issuance of new preferred shares with a senior claim. Individual series of preferred shares may have a senior, pari-passu or junior relationship with other series issued by the same corporation.
- Occasionally companies use preferred shares as means of preventing hostile takeovers, creating preferred shares with a poison put or forced exchange/conversion features that exercise upon a change in control.

The above list, although including several customary rights, is far from comprehensive. Preferred shares, like other legal arrangements, may specify nearly any right conceivable. Preferred shares in the U.S. normally carry a call provision enabling the issuing corporation to repurchase the share at its (usually limited) discretion.

Some corporations contain provisions in their charters authorizing the issuance of preferred stock whose terms and conditions may be determined by the board of directors when issued. These "blank check" preferred shares are often used as takeover defence. These shares may be assigned very high liquidation value that must be redeemed in the event of a change of control or may have enormous super voting powers.

1.7.2 Users

Preferred shares are more common in private or pre-public companies, where it is more useful to distinguish between the control of and the economic interest in the company. Government regulations and the rules of stock exchanges may discourage or encourage the issuance of publicly traded preferred shares. In many countries banks are encouraged to issue preferred stock as a source of Tier 1 capital. On the other hand, the Tel Aviv Stock Exchange prohibits listed companies from having more than one class of capital stock.

A single company may issue several classes of preferred stock. For example, a company may undergo several rounds of financing, with each round receiving separate right and having a separate class of preferred stock; such a company might have "Series a Preferred", "Series B Preferred", "Series C Preferred" and common stock.

In the United States there are two types of preferred stocks: straight preferred and convertible preferred. Straight preferred are issued in perpetuity (although some are subject to call by the issuer under certain conditions) and pay the stipulated rate of interest to the holder. Convertible preferred--in addition to the foregoing features of a straight preferred--contain a provision by which the holder may convert the preferred into the common stock of the company (or, sometimes, into the common stock of an affiliated company) under certain conditions, among which may be the specification of a future date when conversion may begin, a certain number of common shares per preferred share, or a certain price per share for the common.

There are income tax advantages generally available to corporations that invest in preferred stocks in the United States that are not available to individuals.

Some argue that a straight preferred stock, being a hybrid between a bond and a stock, bears the disadvantages of each of those types of securities without enjoying the advantages of either. Like a bond, a straight preferred does not participate in any future earnings and dividend growth of the company and any resulting growth of the price of the common. But the bond has greater security than the preferred and has a maturity date at which the principal is to be repaid. Like the common, the preferred has less security protection than the bond. But the potential of increases of market price of the common and its dividends paid from future growth of the company is lacking for the preferred.

Suppose that an investor paid par (\$100) today for a typical straight preferred. Such an investment would give a current yield of just over 6%. Now suppose that in a few years 10-year Treasuries were to yield 13+% to maturity, as they did in 1981; these preferred would yield at least 13%, which would knock their market price down to \$46, for a 54% loss. (In all probability, they would yield some 2% more than the Treasuries--or something like 15%, which would take the market price down to \$40, for a 60% loss.)

The important difference between straight preferred and Treasuries (or any investment-grade Federal agency or corporate bond) is that the bonds would move up to par as their maturity date is approached, whereas the straight preferred, having no maturity date, might remain at these \$40 levels (or lower) for a very long time.

Advantages of straight preferred posited by some advisers include higher yields and tax advantages (currently yield some 2% more than 10-year Treasuries, rank ahead of common stock in the case of bankruptcy, dividends are taxable at a maximum 15% rather than at ordinary income rates, as in the case of bond interest).

1.7.3 Common Types

There are various types of preferred stocks that are common to many corporations:

- **Cumulative Preferred Stock** - If the dividend is not paid, it will accumulate for future payment.
- **Non-cumulative Preferred Stock** - Dividend for this type of preferred stock will not accumulate if it is unpaid. Very common in TRUPS and bank preferred stock, since under BIS rules, preferred stock must be non-cumulative if it is to be included in Tier 1 capital
- **Convertible Preferred Stock** - This type of preferred stock carries the option to convert into a common stock at a prescribed price.
- **Exchangeable Preferred Stock** - This type of preferred stock carries the option to be exchanged for some other security upon certain conditions.
- **Participating Preferred Stock** - This type of preferred stock allows the possibility of additional dividend above the stated amount under certain conditions.

- **Perpetual Preferred Stock** - This type of preferred stock has no fixed date on which invested capital will be returned to the shareholder, although there will always be redemption privileges held by the corporation. Most preferred stock is issued without a set redemption date.
- **Potable Preferred Stock** - These issues have a "put" privilege whereby the holder may, upon certain conditions, force the issuer to redeem shares.

Check your progress 6

1. Preferred stock is also called as:

- | | |
|---------------------|------------------|
| a. liquid stock | c. equity stock |
| b. preference stock | d. none of above |

1.8 Let Us Sum Up

In this unit we have learnt that stock buying showing ownership in a company along with certain rights.

It is seen that proxy voting is a system with which investors can have standing in business operations and societal activities of company or mutual fund. The idea about businesses is everything from small ownership to multinational conglomerate like General Electric. Doing business with company employs some kind of transaction or exchange of values.

Company can run with any status with Sole proprietorship, Partnership, Corporation or Cooperative where heavy capital is used to along with certain laws and regulations which can be governed with sale of investment securities Further is studied that Share is any part or portion that belongs to, distribute to, contribute by or owed by a person or group. It can be equitable portion where one's share of the work.

The idea of Board of Directors shows representation of management and shareholder's interests as many insiders serving as directors will mean board will make decisions more beneficial to management. AGM is normally conducted every year to inform their members of previous and future activities of an organisation. An AGM is a forum for election of officers or directors for the organization.

1.9 Answers for Check Your Progress

Check your progress 1

Answers: (1-a)

Check your progress 2

Answers: (1-d)

Check your progress 3

Answers: (1-a)

Check your progress 4

Answers: (1-c)

Check your progress 5

Answers: (1-b)

Check your progress 6

Answers: (1-b)

1.10 Glossary

1. **Sole proprietorship** - It is ownership of an individual which serves as a proprietor of particular concern.
2. **Partnership** - It is a combination or grouping of two or more people with centre goal of creating profit for company.
3. **Corporation** - It is related to business for profit having limited liability having different legal personality owned by shareholders.
4. **Management** - It is the study of working and operation of business.

1.11 Assignment

Define Board of Directors? What are the duties of Board of Directors?

1.12 Activities

Prepare report on Proxy voting and purpose of Proxy voting.

1.13 Case Study

Understanding how this measure works in the market can help keep your finances afloat. Diving In To Financial Liquidity.

1.14 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger, Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.
6. Portfolio Management –S. Kevin – Prentice Hall India.

UNIT 2: PRIMARY MARKET AND SECONDARY MARKET FUNCTIONS

Unit Structure

2.0 Learning Objectives

2.1 Introduction

2.2 Stock Exchange

2.3 History of Stock Exchanges

2.4 Role of Stock Exchanges

2.5 Major Stock Exchanges

2.6 Listing Requirements

2.6.1 Requirements by Stock Exchange

2.7 Primary Market

2.8 Secondary Market

2.9 Stock Valuation

2.10 Let Us Sum Up

2.11 Answers for Check Your Progress

2.12 Glossary

2.13 Assignment

2.14 Activities

2.15 Case Study

2.16 Further Readings

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Stock Exchange
- Types of Stock Exchanges
- Secondary Market

2.1 Introduction

Where securities are traded after being initially offered to the public in the primary market and/or listed on the stock exchange. Majority of the trading is done in the secondary market for new issues of securities, as distinguished from the secondary market, where previously issued securities are bought and sold. A market is primary if the proceeds of sales go to the issuer. The market in which investors have the first opportunity to buy a newly issued security. After the first purchases, subsequent trading is said to occur in the secondary markets.

The market in which an investor purchases the asset from another investor rather than an issuing corporation. A good example is the New York Stock Exchange. Here all stock exchanges are parts of the Secondary Market, as investors buy securities from other investors instead of an issuing company. The market where existing loans, marketable securities, stocks, bonds and other assets are sold to investors, either directly or through an intermediary. 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 and transparent. Before electronic means of communications, 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.

2.2 Stock Exchange

Market Stock Exchange has the most stringent requirements. A stock exchange is a forum for trading in securities representing shares of firms. An exchange provides ways by which financing is raised by the sale of shares to outside investors. It provides a mechanism for the valuation of companies through the process of price discovery and a means by which such information is disseminated.

A formal definition of the term exchange is a critical component of law and regulation regarding securities trading markets, discussed by Domowitz (1996) and Lee (1998). In the United States, the New York Stock Exchange (NYSE) is legally an exchange, while the markets operated by the National Association of Securities Dealers (NASDAQ) and Instinct, an electronic communications network (ECN), are not. All three examples nevertheless satisfy the definition of a stock exchange given above. Given differences across countries with respect to legal definitions, a more unified approach is needed to focus the discussion.

The approach taken here is to identify important attributes and functions of institutions satisfying the basic definition in practice. Exchanges provide trading systems and may offer more than one. Types of trading systems are sometimes differentiated by the form of market intermediation provided by entities with direct access to the system. The nature of competition between exchanges is a defining feature, since exchanges may adopt varying market structures in order to compete in different fashions. A stock exchange is a business entity, and the form of its governance arrangements is important in understanding its nature and conduct.

1. Trading Systems

Trading markets gives information about system having order routing which an information network is showing trade execution. It is a platform which allows messages to be transferred between traders with set of rules to stock company that detailed about stocks.

The nature of messages depends on certain exchange rules and technology which describes typical message of offer to buy or to sell number of shares at a particular price rate. Such transformation of messages and information from system into price and setting of required quantity allocations is handled by another set of rules.

2. Market Intermediation

Investors normally allow accessing free in trading systems. Entry for bid or stock is entered by the brokers to the exchange. The work of broker is to route orders to exchanges. Exchanges are bifurcated by class of intermediaries which is called as market makers which trades for own accounts that is applied for offer to sell and offer to buy at various prices.

It is seen that there are multiple market makers in given stock inspite of precise form of trading system. In case of an electronic limit order book, markets offer trading without financial intermediation.

3. Competition

In view of exchanges, there exists two clienteles:

- Companies who list their shares
- Investors who trade on exchange

Normally it is seen that the product offered to companies was bundle that carries:

Government regulation and increased competition from automated trading systems lessen the importance of exchange monitoring and standardized rules. With this, exchanges now completely dependent on dimensions of liquidity and cost of trading.

It is found that liquidity is upgraded with an idea to establish wide networks of traders through communications systems with an automated execution system at the nexus. A company does not need to be listed, or even traded, on a domestic exchange.

4. Governance

With increase in competition among exchanges allows the change in ownership structure. In this, the industry argument depends on corporate structure with profit idea which makes faster initiatives in response to competitive advances than a committee-and voting-oriented membership organization.

It is seen that communications and computerized execution technology allows and encourage alteration in governance structure. Normally, exchanges are limited by space and hence access is not open for all members. Organized market for the sale and purchase of securities such as stocks and bonds. Trading is done in various ways: it may occur on a continuous auction basis, it may involve brokers buying from and selling to dealers in certain types of stock, or it may be conducted through specialists in a particular stock. Some stock exchanges, such as the New York Stock Exchange (NYSE), sell seats (the right to trade) to a limited number of members who must meet eligibility requirements. Stocks must likewise meet and maintain certain requirements or risk being delisted. Stock exchanges differ from country to country in eligibility requirements and in the degree to which the government participates in their management.

The London Stock Exchange, for example, is an independent institution, free from government regulation. In Europe, members of the exchanges are often appointed by government officials and have semi-governmental status. In the U.S., stock exchanges are not directly run by the government but are regulated by law. Technological developments have greatly influenced the nature of trading. In a traditional full-service brokerage, a customer placed an order with a broker or member of a stock exchange, who in turn passed it on to a specialist on the floor of the exchange, who then concluded the transaction. By the 21st century, increased access to the Internet and the proliferation of electronic communications networks (ECNs) altered the investment world. Through e-trading, the customer enters an order directly on-line, and software automatically matches orders to

achieve the best price available without the intervention of specialists or market makers. In effect, the ECN is a stock exchange for off-the-floor trading.

The London Stock Exchange was founded in 1802, providing a mechanism for the increasing volume and complexity of financial transactions which had developed in the 18th cent. The scale of formal investment increased massively in the second half of the 19th cent. with a marked orientation towards international operations which the city of London retains.

Organized market for the trading of stocks and bonds such markets were originally open to all, but at present only members of the owning association may buy and sell directly. Members, or stock brokers, buy and sell for themselves or for others, charging commissions for their services. A stock may be bought or sold only if it is listed on an exchange, and it may not be listed unless it meets certain requirements set by the exchange's board of governors. There are stock exchanges in all important financial centers of the world; the New York Stock Exchange (NYSE, in nearly continuous operation since 1792), which had a trading volume of \$7.3 trillion in 1998, is the largest in the world. Tokyo, London, and Frankfurt also have major facilities, and Euronext, an inter-European exchange combining facilities in Amsterdam, Brussels, Paris, and other cities, is also significant.

By providing a centralized, ready market for the exchange of securities, stock exchanges greatly facilitate the financing of business through flotation of stocks and bonds. However, speculation in stocks can sometimes accentuate the instability of an economy. The reality of the Great Depression was emphasized by the stock market crash in 1929. The interstate sale of securities and certain stock exchange practices in the United States are regulated by federal laws administered by the Securities and Exchange Commission. Today, a large percentage of stocks are traded through such over-the-counter organizations as Nasdaq (National Association of Securities Dealers Automatic Quotations) and its European equivalent, Nasdaq Europe (formerly Easdaq). Through these organizations, many securities not listed on a major stock exchange may be traded by dealers using computer and telecommunications technology; in 1994, Nasdaq, on which many computer and other high-technology stocks are traded, surpassed the NYSE in annual share volume. After the deregulation of the British securities market in 1986, the London Stock Exchange saw a decline in business due to a new computerized market similar to Nasdaq.

Computer-driven trade has significantly affected the stock exchange. Computer and telecommunications technology, besides opening a wide market in over the counter dealings, has also given rise to trading on an international level.

Personal computers and modems allow trading to occur around the clock (after-hours NYSE and Nasdaq trading began in 1999), and the securities trading on one major stock exchange can now significantly affect the trading on others. Many contend that the traditional manner of trading will eventually become obsolete. Technology also now allows for “day trading,” a high-risk business in which numerous computerized trades are made during a single day, with large gains (and large losses) possible.

5. History 1450-1789: Stock Exchanges

Stock exchanges are formally organized secondary markets for financial assets that have already been issued in primary capital markets. Stock markets have become the hallmark of successful modern capitalist economies, despite the frequency of volatile price movements that lead to excessive speculation followed by panics and despite repeated scandals. They play an important role, however, for both the primary capital market and the mobilization of bank credit within any economy, basically by providing liquidity for the initial investors in government or corporate debt or in corporation stock. The assurance that a ready market exists for the sale of an investor's holdings in case of second thoughts, emergencies, or better alternatives for investment makes it easier to place debt or equity in the first place on the primary capital market. The daily pricing of all such financial products on a stock exchange also makes them ideal instruments as collateral for loans. In sum, stock exchanges are important complements to the efficient operation of the rest of an economy's financial sector.

The historical development of worldwide stock exchanges shows that three features are essential for their long-term success: a large stock of homogeneous, readily identified financial assets available to the public; a numerous and diverse customer base that is aware of the financial assets available; and a set of trustworthy intermediaries to handle trades of the various financial products among the customers.

The first feature arose with the creation of large-scale government debt, initially by Italian city-states such as Venice, Florence, and Genoa in the fourteenth and fifteenth centuries. While a secondary market of sorts existed, the city debts do not appear to have been widely held, as they took the form of forced loans from the wealthiest merchants and gentry. The second feature appeared with the creation of the joint stock of the Dutch East India Company or VOC (Vereenigde Oost-Indische Compagnie) in 1602, which was a forced amalgamation of a series of trading ventures organized within six different cities of the United Provinces. The existing shareholders were numerous and varied

greatly in wealth and investment objectives; many were unhappy at the forced amalgamation and loss of voice in the management of the company. Active trading in the shares arose soon afterward, and a group of specialists in trading VOC shares appeared on the Amsterdam Beurs, which was the general wholesale market for commodities. According to de le Vega, these traders met in a corner of the exchange when it was open and continued business after hours in nearby coffeehouses. But this grouping does not appear to have had a formal organization or many other trading opportunities in other securities. Even though each city and province in the Netherlands issued large amounts of debt, each issue was closely held and seldom traded outside the city or province of origin. Not until 1795, when the Batavian Republic instituted reforms inspired by the French Revolution, did a regularly printed list of stock prices appear in Amsterdam, even though Dutch newspapers had reported prices of the leading securities since at least 1723.

In 1688, when Dutch financial techniques were grafted onto the English system of central government with parliamentary control over a constitutional monarch, the new British governments rapidly increased both their debt and the transferable stock of corporations holding government debt, such as the Bank of England, the New East India Company, and the South Sea Company. Despite the general collapse of share prices after the South Sea Bubble of 1720, the customer base for English securities was large and increasingly diverse, comprising foreigners as well as provincial customers throughout England. Dedicated professional traders appeared who usually acted as brokers and often as dealers holding stock on their own account as well. Not until 1773, however, do we find documented evidence that they had a formal organization to assure confidence in trading with each other and on behalf of the general public.

With the substantial increases in government debt during the Napoleonic Wars, however, a formal exchange was created: the London Stock Exchange, with its self-regulated set of trading rules and information system. In response, the Paris Bourse, which had come under strict government control in 1726 after the collapse of the Mississippi Bubble in 1720, and then fell into disuse during the financial disruptions caused by the French Revolution, was revitalized by the French government and maintained under Napoleon. In the United States, the creation of federal debt in 1790 led to the appearance of the New York Stock Exchange, as well as other exchanges in Philadelphia, Boston, and elsewhere, eventually leading to over two hundred regional exchanges in the United States by World War I.

A market maintained for the purpose of buying and selling securities. Under the Securities Exchange Act of 1934 ("the 1934 Act") an "exchange" is defined as any organization, association, or group of persons, whether incorporated or unincorporated, that constitutes, maintains, or provides a marketplace or facilities for bringing together buyers and sellers of securities or for otherwise performing with respect to securities the functions commonly performed by a stock exchange as that term is generally understood, and includes the marketplace and the market facilities maintained by such exchange. 15 U.S.C. §78c(a)(1). Under the 1934 Act, every stock exchange is subject to registration with the Securities and Exchange Commission, which may be denied unless the exchange adopts rules providing for the discipline, suspension, or expulsion of a member who engages in conduct inconsistent with just and equitable principles of trade. 15 U.S.C. §78f; Jaffe, *Broker Dealers and Securities Markets* §§10.01-10.02 (1977).

In the United States, the two largest stock exchanges are the New York Stock Exchange and NASDAQ. Activity on these two exchanges is usually considered an indication of the state of the economy as a whole.

A stock exchange, share market or bourse is a corporation or mutual organization which provides facilities for stock brokers and traders, to trade company stocks and other securities.

Check your progress 1

1. Stock exchange is place where _____ are traded.
 - a. mutual funds
 - b. equities
 - c. money
 - d. all of above
2. New York Stock Exchange operates since:
 - a. 1792
 - b. 1929
 - c. 1986
 - d. 1994

2.3 History of Stock Exchanges

In 11th century France the courtiers de change was concerned with managing and regulating the debts of agricultural communities on behalf of the banks. As these men also traded in debts, they could be called the first brokers.

Some stories suggest that the origins of the term "bourse" come from the Latin bursa meaning a bag because, in 13th century Bruges, the sign of a purse (or perhaps three purses), hung on the front of the house where merchants met.

However, it is more likely that in the late 13th century commodity traders in Bruges gathered inside the house of a man called Van der Burse, and in 1309 they institutionalized this until now informal meeting and became the "Bruges Bourse". The idea spread quickly around Flanders and neighbouring counties and "Bourses" soon opened in Ghent and Amsterdam.

In the middle of the 13th century, Venetian bankers began to trade in government securities. In 1351, the Venetian Government outlawed spreading rumours intended to lower the price of government funds. There were people in Pisa, Verona, Genoa and Florence who also began trading in government securities during the 14th century. This was only possible because these were independent city states ruled by a council of influential citizens, not by a duke.

The Dutch later started joint stock companies, which let shareholders invest in business ventures and get a share of their profits - or losses. In 1602, the Dutch East India Company issued the first shares on the Amsterdam Stock Exchange. It was the first company to issue stocks and bonds. In 1688, the trading of stocks began on a stock exchange in London.

Check your progress 2

1. Commodity traders started trading since:
 - a. 14th century
 - b. 15th century
 - c. 13th century
 - d. 16th century

2.4 Role of Stock Exchanges

There are many roles involved in Stock exchanges such as:

1. Raising capital for businesses

The Stock Exchange gives facilities to companies to raise capital for expansion by selling shares to investors.

2. Mobilizing Savings for Investment

By investing money, more rational allocation of resources appears as funds, which could have been consumed or kept as idle deposits with banks gets mobilized and redirected to promote business activity.

3. Facilitating Company Growth

Company's sees acquisitions as opportunity so as to expand product lines and increase distribution channels by hedging against volatility which further rises market share and increases assets.

4. Redistribution of Wealth

Stocks exchanges do not exist to redistribute wealth although casual and professional stock investors through stock price increases.

5. Corporate Governance

By having a wide and varied scope of owners, companies generally tend to improve on their management standards and efficiency in order to satisfy the demands of these shareholders and the more stringent rules for public corporations imposed by public stock exchanges and the government.

6. Creating Investment Opportunities for Small Investors

Since heavy money is involved in businesses, so people think to invest in shares which are open both for large and small stock investors. With this, the Stock Exchange provides opportunity for small investors to have shares of same companies.

7. Government Capital-Raising For Development Projects

Governments to perform various works need money for to finance infrastructure projects which can be sewage and water treatment or housing estates which is easily possible by selling another category of securities which is commonly called as bonds.

8. Barometer of the economy

It is seen that in stock exchange, the share prices rises and falls as per market forces. Share prices tend to rise or remain stable when companies and economy show positive symptoms of stability and growth.

Check your progress 3

1. Which is not the function of stock exchange?
 - a. Raising capital
 - b. Mobilize savings
 - c. Company Growth
 - d. Keeping funds for particular task

2.5 Major Stock Exchanges

Twenty Major Stock Exchanges In The World: Market Capitalization and Year-to-date Turnover at the end of May 2015.

Region	Stock Exchange	Market Value (millions USD)	Shares Turnover (millions USD)
Africa	Johannesburg Exchange	690,797.5	210,180.8
Americas	NASDAQ	2,847,535.2	19,343,868.3
Americas	São Paulo 1Stock Exchange	032,518.4	361,959.0
Americas	Toronto Stock Exchange	1,432,877.0	798,193.1
Americas	New York Stock Exchange	10,842,001.9	12,158,620.6

Asia/Pacific	Australian Exchange	1,066,513.2	560,912.8
Asia/Pacific	Bombay Stock Exchange	1,082,572.0	171,176.2
Asia/Pacific	Hong Kong Stock Exchange	1,945,517.7	970,227.6
Asia/Pacific	Korea Exchange	727,125.3	1,050,473.8
Asia/Pacific	NSE India	1,019,109.0	506,652.3
Asia/Pacific	Shanghai Stock Exchange	2,142,756.8	3,315,768.5
Asia/Pacific	Shenzhen Stock Exchange	596,320.2	1,701,256.8
Asia/Pacific	Tokyo Stock Exchange	3,478,602.5	2,675,983.3
Europe	Euronext	2,605,097.6	1,195,962.2
Europe	Frankfurt Stock Exchange	1,204,292.0	1,589,736.7
Europe	London Stock Exchange	2,560,491.1	2,321,518.5
Europe	Madrid Stock Exchange	1,178,525.6	1,040,751.1
Europe	Milan Stock Exchange	636,674.8	565,759.3
Europe	Nordic Stock Exchange	781,146.3	503,049.9

Primary
Market and
Secondary
Market
Functions

Europe	Swiss Exchange	992,356.4	520,867.5
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Note 1: includes the Copenhagen, Helsinki, Iceland, Stockholm, Tallinn, Riga and Vilnius Stock Exchanges

Note 2: latest data available is at the end of June 2007

Source: <http://www.oogee.com/Kemet/products/20-Exchanges.htm>

Remarks: There are 2 pending major mergers: NASDAQ with OMX; and London Stock Exchange with Milan Stock Exchange

Check your progress 4

1. NASDAQ stock exchange is in:

- | | |
|------------|----------|
| a. London | c. India |
| b. America | d. China |

2.6 Listing Requirements

These are set of conditions which are carried on by stock exchange to the companies who wants to get listed on exchange. These will cover minimum amount of shares outstanding, minimum market capitalization and minimum annual income.

2.6.1 Requirements by Stock Exchange

Companies have to follow certain requirements to get them listed on exchange so that their stocks and shares can be listed and traded as:

- London Stock Exchange: In such exchange, the minimum market capitalization should be around £700,000, with 3 years audited financial statements having minimum public float (25 per cent) along with working capital for 1 year from date of listing.

- NASDAQ Stock Exchange: In such exchange, company need to have at least 1.25 million shares of stock worth \$70 million and gross profit earned around \$11 million over last three years.
- New York Stock Exchange: In such exchange, a company needs to have at least 1 million shares of stock whose amount should be around \$100 million and gross earned profit more than \$10 million over last three years.
- Bombay Stock Exchange: In such exchange, the company needs to have market capitalization of Rs.250 Million with public float capital of Rs.100 Million.

Future Role of the Specialist

The specialist trades in circumstances when others do not or will not, and therefore take on a risk which warrants compensation. The current debate centers on the model of compensation. The specialist at the Paris Bourse is compensated in cash and with investment banking business. In contrast, the NYSE specialist is compensated in the form of privileged information on order flow. In recent months, several U.S. institutions have alleged that the NYSE trading abuses is an outcome of this compensation structure. The Paris model overcomes this criticism and presents an alternative for the NYSE to consider. Results show, however, that there continues to be a role for the specialist (or, at least, an 'upstairs trader') in electronic markets. Investors value the presence of a specialist because they can get in and out of a stock with greater ease.

Check your progress 5

1. The minimum requirement for listing of Bombay Stock Exchange is:
 - a. market capitalization of 250 Million
 - b. market capitalization of £700,000
 - c. market capitalization of \$70 million
 - d. none of above

2.7 Primary Market

The market in which investors have the first opportunity to buy a newly issued security.

After the first purchases, subsequent trading is said to occur in the secondary market.

1. Market in which a loan is actually made to the borrower, distinguished from the Secondary Market where securities backed by loan receivables are sold to investors. A bank or thrift institution that holds its loans on its own records, and does not engage in secondary market sales, is known as a portfolio lender.
2. Market where government securities are sold to Primary Dealers who then remarket securities to investors in the secondary market.
3. Market in which newly issued securities are offered for sale, futures contracts are offered for sale, and options are purchased.

The primary is that part of the capital markets that deals with the issuance of new securities. Companies, governments or public sector institutions can obtain funding through the sale of a new stock or bond issue. This is typically done through a syndicate of securities dealers. The process of selling new issues to investors is called underwriting. In the case of a new stock issue, this sale is an initial public offering (IPO). Dealers earn a commission that is built into the price of the security offering, though it can be found in the prospectus. Features Of Primary Market are:-

1. This is the market for new long term capital. The primary market is the market where the securities are sold for the first time. Therefore it is also called New Issue Market (NIM).
2. In a primary issue, the securities are issued by the company directly to investors.
3. The company receives the money and issue new security certificates to the investors.
4. Primary issues are used by companies for the purpose of setting up new business or for expanding or modernizing the existing business.
5. The primary market performs the crucial function of facilitating capital formation in the economy.

6. 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'.

Methods of issuing securities in the Primary Market

1. Initial Public Offer;
2. Rights Issue (For existing Companies); and
3. Preferential Issue.

Initial Public Offering - IPO

The first sale of stock by a private company to the public. IPOs are often issued by smaller, younger companies seeking capital to expand, but can also be done by large privately-owned companies looking to become publicly traded.

In an IPO, the issuer obtains the assistance of an underwriting firm, which helps it determine what type of security to issue (common or preferred), best offering price and time to bring it to market.

Also referred to as a "public offering".

IPOs can be a risky investment. For the individual investor, it is tough to predict what the stock will do on its initial day of trading and in the near future since there is often little historical data with which to analyse the company. Also, most IPOs are of companies going through a transitory growth period, and they are therefore subject to additional uncertainty regarding their future value.

a. Improving Prospects for a Successful IPO

“An Initial Public Offering (IPO) is the first sale of stock by a private company to the public. IPOs are often issued by smaller, younger companies seeking capital to expand, but can also be done by large privately-owned companies looking to become publicly traded.

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most IPOs are of companies going through a transitory growth period, and they are therefore subject to additional uncertainty regarding their future value.

b. Reasons for Listing

When a company lists its shares on a public exchange, it will almost invariably look to issue additional new shares in order to raise extra capital at the same time. The money paid by investors for the newly-issued shares goes directly to the company (in contrast to a later trade of shares on the exchange, where the money passes between investors). An IPO, therefore, allows a company to tap a wide pool of stock market investors to provide it with large volumes of capital for future growth. The company is never required to repay the capital, but instead the new shareholders have a right to future profits distributed by the company.

The existing shareholders will see their shareholdings diluted as a proportion of the company's shares. However, they hope that the capital investment will make their shareholdings more valuable in absolute terms.

In addition, once a company is listed, it will be able to issue further shares via a rights issue, thereby again providing itself with capital for expansion without incurring any debt. This regular ability to raise large amounts of capital from the general market, rather than having to seek and negotiate with individual investors, is a key incentive for many companies seeking to list.

c. Procedure

IPOs generally involve one or more investment banks as "underwriters." The company offering its shares, called the "issuer," enters a contract with a lead underwriter to sell its shares to the public. The underwriter then approaches investors with offers to sell these shares.

The sale (that is, the allocation and pricing) of shares in an IPO may take several forms. Common methods include:

- Dutch auction
- Firm commitment
- Best efforts
- Bought deal
- Self-Distribution of Stock

A large IPO is usually underwritten by a "syndicate" of investment banks led by one or more major investment banks (lead underwriter). Upon selling the shares, the underwriters keep a commission based on a percentage of the value of

the shares sold. Usually, the lead underwriters, i.e. the underwriters selling the largest proportions of the IPO, take the highest commissions—up to 8% in some cases.

Multinational IPOs may have as many as three syndicates to deal with differing legal requirements in both the issuer's domestic market and other regions. For example, an issuer based in the E.U. may be represented by the main selling syndicate in its domestic market, Europe, in addition to separate syndicates or selling groups for US/Canada and for Asia. Usually, the lead underwriter in the main selling group is also the lead bank in the other selling groups.

Because of the wide array of legal requirements, IPOs typically involve one or more law firms with major practices in securities law, such as the Magic Circle firms of London and the white shoe firms of New York City.

Usually, the offering will include the issuance of new shares, intended to raise new capital, as well the secondary sale of existing shares. However, certain regulatory restrictions and restrictions imposed by the lead underwriter are often placed on the sale of existing shares.

Public offerings are primarily sold to institutional investors, but some shares are also allocated to the underwriters' retail investors. A broker selling shares of a public offering to his clients is paid through a sales credit instead of a commission. The client pays no commission to purchase the shares of a public offering; the purchase price simply includes the built-in sales credit.

The issuer usually allows the underwriters an option to increase the size of the offering by up to 15% under certain circumstance known as the green shoe or over allotment option.

Business Cycle

In the United States, during the dot-com bubble of the late 1990s, many venture capital driven companies were started, and seeking to cash in on the bull market, quickly offered IPOs. Usually, stock price spiralled upwards as soon as a company went public, as investors sought to get in at the ground-level of the next potential Microsoft and Netscape.

Initial founders could often become overnight millionaires, and due to generous stock options, employees could make a great deal of money as well. The majority of IPOs could be found on the NASDAQ stock exchange, which lists companies related to computer and information technology. However, in spite of the large amounts of financial resources made available to relatively young and untested firms (often in multiple rounds of financing), the vast majority of them

rapidly entered cash crisis. Crisis was particularly likely in the case of firms where the founding team liquidated a substantial portion of their stake in the firm at or soon after the IPO this phenomenon was not limited to the United States. In Japan, for example, a similar situation occurred. Some companies were operated in a similar way in that their only goal was to have an IPO. Some stock exchanges were set up for those companies, such as NASDAQ Japan.

Perhaps the clearest bubbles in the history of hot IPO markets were in 1929, when closed-end fund IPOs sold at enormous premiums to net asset value, and in 1989, when closed-end country fund IPOs sold at enormous premiums to net asset value. What makes these bubbles so clear is the ability to compare market prices for shares in the closed-end funds to the value of the shares in the funds' portfolios. When market prices are multiples of the underlying value, bubbles are clearly occurring.

Auction

A venture capitalist named Bill Hambrecht has attempted to devise a method that can reduce the inefficient process. He devised a way to issue shares through a Dutch auction as an attempt to minimize the extreme under-pricing that underwriters were nurturing. Underwriters, however, have not taken to this strategy very well. Though not the first company to use Dutch auction, Google is one established company that went public through the use of auction. Google's share price rose 17% in its first day of trading despite the auction method. Perception of IPOs can be controversial. For those who view a successful IPO to be one that raises as much money as possible, the IPO was a total failure. For those who view a successful IPO from the kind of investors that eventually gained from the under-pricing, the IPO was a complete success. It's important to note that different sets of investors bid in auctions versus the open market—more institutions bid, fewer private individuals bid. Google may be a special case, however, as many individual investors bought the stock based on long-term valuation shortly after it launched its IPO, driving it beyond institutional valuation.

Pricing

Historically, IPOs both globally and in the US have been under-priced. The effect of under-pricing an IPO is to generate additional interest in the stock when it first becomes publicly traded. This can lead to significant gains for investors who have been allocated shares of the IPO at the offering price. However, under-pricing and IPO results in "money left on the table"—lost capital that could have been raised for the company had the stock been offered at a higher price.

The danger of overpricing is also an important consideration. If a stock is offered to the public at a higher price than what the market will pay, the underwriters may have trouble meeting their commitments to sell shares. Even if they sell all of the issued shares, if the stock falls in value on the first day of trading, it may lose its marketability and hence even more of its value.

Investment banks, therefore, take many factors into consideration when pricing an IPO, and attempt to reach an offering price that is low enough to stimulate interest in the stock, but high enough to raise an adequate amount of capital for the company. The process of determining an optimal price usually involves the underwriters ("syndicate") arranging share purchase commitments from lead institutional investors.

How is The Issue Price Decided On?

A company that is planning an IPO appoints lead managers to help it decide on an appropriate price at which the shares should be issued. There are two ways in which the price of an IPO can be determined either the company, with the help of its lead managers, fixes a price or the price is arrived at through the process of book building.

Note: Not all IPOs are eligible for delivery settlement through the DTC system, which would then either require the physical delivery of the stock certificates to the clearing agent bank's custodian, or a delivery versus payment ("DVP") arrangement with the selling group brokerage firm. This information is not sufficient.

Quiet Period

There are two time windows commonly referred to as "quiet periods" during an IPO's history. The first and the one linked above is the period of time following the filing of the company's S-1 but before SEC staff declare the registration statement effective. During this time, issuers, company insiders, analysts, and other parties are legally restricted in their ability to discuss or promote the upcoming IPO.

The other "quiet period" refers to a period of 40 calendar days following an IPO's first day of public trading. During this time, insiders and any underwriters involved in the IPO are restricted from issuing any earnings forecasts or research reports for the company. Regulatory changes enacted by the SEC as part of the Global Settlement, changed the quiet period to 40 days from 25 days on July 9, 2002. When the quiet period is over, generally the lead underwriters will initiate research coverage on the firm.

Check your progress 6

1. Which is not a feature of primary market?
 - a. securities are issued by company directly to investors.
 - b. issuing shares certificates to company.
 - c. expands existing business.
 - d. facilitate capital formation in economy

2.8 Secondary Market

A market on which an investor purchases an asset from another investor rather than an issuing corporation.

A good example is the New York Stock Exchange. Here all stock exchanges are part of the secondary market, as investors buy securities from other investors instead of an issuing company.

The market where existing loans, marketable securities, stocks, bonds, and other assets are sold to investors, either directly or through an intermediary.

1. **Money Market:** The market where marketable debt instruments are offered by dealers for resale to new investors. For example, the dealer market in negotiable Certificates of Deposit (CDs) is concentrated in 25 dealers based in New York. Trades in negotiable CDs between dealers and their customers are in lots of \$1 million or more.
2. **Mortgages:** The nationwide Secondary Mortgage Market for purchase and sale of existing mortgages; the market in which mortgages are originated is the primary market.

The secondary market is the financial market for trading of securities that have already been issued in an initial private or public offering. Alternatively, secondary market can refer to the market for any kind of used goods. The market that exists in a new security just after the new issue is often referred to as the aftermarket. Once a newly issued stock is listed on a stock exchange, investors and speculators can easily trade on the exchange, as market makers provide bids and offers in the new stock.

Function

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 and transparent. Before electronic means of communications, 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

Secondary marketing is vital to an efficient and modern capital 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. For example, a traditional loan allows the borrower to pay back the loan, with interest, over a certain period. For the length of that period of time, the bulk of the lender's investment is inaccessible to the lender, even in cases of emergencies. Likewise, in an emergency, a partner in a traditional partnership is only able to access his or her original investment if he or she finds another investor willing to buy out his or her interest in the partnership. With a securitized loan or equity interest (such as bonds) or tradable stocks, the investor can sell, relatively easily, his or her interest in the investment, particularly if the loan or ownership equity has been broken into relatively small parts. This selling and buying of small parts of a larger loan or ownership interest in a venture is called secondary market trading.

Under traditional lending and partnership arrangements, investors may be less likely to put their money into long-term investments, and more likely to charge a higher interest rate (or demand a greater share of the profits) if they do. With secondary markets, however, investors know that they can recoup some of their investment quickly, if their own circumstances change.

Related Usage

The term may refer to markets in things of value other than securities. For example, the ability to buy and sell intellectual property such as patents, or rights to musical compositions, is considered a secondary market because it allows the owner to freely resell property entitlements issued by the government. Similarly, secondary markets can be said to exist in some real estate contexts as well (e.g. ownership shares of time-share vacation homes are bought and sold outside of the official exchange set up by the time-share issuers). These have very similar

functions as secondary stock and bond markets in allowing for speculation, providing liquidity, and financing through securitization.

Ownership Equity

If valuations placed on assets do not exceed liabilities, negative equity exists. This is helpful when a business is not paying its bills and gets liquidated, wound up and put into receivership or bankruptcy. Then, a series of creditors, ranked in priority sequence, have the first claim on the proceeds (e.g. asset sales), and ownership equity is the last or residual claim against assets, paid only after all other creditors are paid. In such a case, creditors may not get enough money to pay their bills, and nothing is left over to reimburse owners' equity. Thus owners' equity is reduced to zero. Ownership equity is also known as risk capital, liable capital and equity.

Equity Capital

Equity capital is defined as the amount of capital provided by the company's owner(s). Providing new equity (an "issuance" of new equity) gives the firm new capital and increases owners' equity by the same amount and time needed. An issuance of new shares, to raise new capital, increases shareholders' equity. Formally, owners' equity is also a form of liability, but is deemed separate and different from other liabilities since it is a residual interest, ranked last in the series; equity is generally considered to be an asset.

Market Value of Shares

There is little or no correlation between the equity seen in financial statements and the stock valuation of the business.

Real Estate Equity

Individuals can also use market valuations to calculate equity in real estate. An owner refers to his or her equity in a property as the difference between the market price of a property and the liability attached to the property (mortgage or home equity loan). This is the exact opposite of how equity is considered for accounting purposes.

Debt capital is the capital that a business raises by taking out a loan. It is a loan made to a company that is normally repaid at some future date. Debt capital differs from equity or share capital because subscribers to debt capital do not become part owners of the business, but are merely creditors, and the suppliers of debt capital usually receive a contractually fixed annual percentage return on their loan, and this is known as the coupon rate.

Debt capital ranks higher than equity capital for the repayment of annual returns. This means that legally, the interest on debt capital must be repaid in full before any dividends are paid to any suppliers of equity.

A company that is highly geared has a high debt capital to equity capital ratio.

Check your progress 7

1. Which stock exchange is for secondary market?
 - a. Bombay Stock Exchange
 - b. NASDAQ
 - c. New York Stock Exchange
 - d. None of above

2.9 Stock Valuation

There are several methods used to value companies and their stocks. They attempt to give an estimate of their fair value, by using fundamental economic criteria. This theoretical valuation has to be perfected with market criteria, as the final purpose is to determine potential market prices.

1) Fundamental Criteria (fair value)

The most theoretically sound stock valuation method is called income valuation or the discounted cash flow (DCF) method, involving discounting the profits (dividends, earnings, or cash flows) the stock will bring to the stockholder in the foreseeable future, and a final value on disposition. The discount rate normally has to include a risk premium which is commonly based on the capital asset pricing model.

The Gordon model or Gordon's growth model is the best known of a class of discounted dividend models. It assumes that dividends will increase at a constant growth rate (less than the discount rate) forever. The valuation is given by the formula:

$$P = D \cdot \sum_{i=1}^{\infty} \left(\frac{1+g}{1+k} \right)^i = D \cdot \frac{1+g}{k-g}$$

And the following table defines each symbol:

Symbol	Meaning	Units
P	estimated stock price	\$ or € or £
D	last dividend paid	\$ or € or £
k	discount rate	%
g	the growth rate of the dividends	%

The P/E method is perhaps the most commonly used valuation method in the stock brokerage industry. By using comparison firms, a target price/earnings (or P/E) ratio is selected for the company, and then the future earnings of the company are estimated. The valuation's fair price is simply estimated earnings times target P/E. This model is essentially the same model as Gordon's model, if $k-g$ is estimated as the dividend payout ratio (D/E) divided by the target P/E ratio.

2) Market Criteria (potential price)

Some feel that if the stock is listed in a well-organized stock market, with a large volume of transactions, the listed price will be close to the estimated fair value. This is called the efficient market hypothesis.

On the other hand, studies made in the field of behavioural finance tend to show that deviations from the fair price are rather common, and sometimes quite large.

Thus, in addition to fundamental economic criteria, market criteria also have to be taken into account market-based valuation. Valuing a stock is not only to estimate its fair value, but also to determine its potential price range, taking into account market behaviour aspects. One of the behavioural valuation tools is the stock image, a coefficient that bridges the theoretical fair value and the market price.

Check your progress 8

1. DCF is known as:
 - a. discounted cash flow
 - b. double cash flow
 - c. down cash flow
 - d. delete cash flow

2.10 Let Us Sum Up

In this unit we understand the concept of stock exchange that is a place where stocks, bonds, and other securities are bought and sold. It is seen that stocks and IPO are used in primary and secondary market where profits and market criteria determine its potential price range.

It is found that stock exchange is a forum for trading in securities showing shares of firms which provides ways through which financing is raised by sale of shares to outside investors. A trading system is a communications technology for passing allowable messages between traders, together with a set of rules that transform traders' messages into transactions prices, and allocations of quantities of stock among market participants.

It is studied that there are many functions of stock exchanges that can be Raising Capital for Businesses, Mobilizing Savings for Investment, Facilitating Company Growth, Redistribution of Wealth and Corporate Governance, Creating investment opportunities for small investors, Government capital-raising for development projects and Barometer of the economy.

As seen, primary market is capital markets which involve issuance of new securities. The secondary market is the financial market for trading of securities that have already been issued in an initial private or public offering.

There are several methods used to value companies and their stocks. They attempt to give an estimate of their fair value, by using fundamental economic criteria. This theoretical valuation has to be perfected with market criteria, as the final purpose is to determine potential market prices.

2.11 Answer for Check Your Progress

Check your progress 1

Answers: (1-b), (1-a)

Check your progress 2

Answers: (1-c)

Check your progress 3

Answers: (1-d)

Check your progress 4

Answers: (1-b)

Check your progress 5

Answers: (1-a)

Check your progress 6

Answers: (1-b)

Check your progress 7

Answers: (1-c)

Check your progress 8

Answers: (1-a)

2.12 Glossary

1. **Stock exchange** - It is a forum where you can do trading of stocks or securities listed by particular firms.
2. **Primary Market** - It is a place where a loan is given to the borrower to buy securities.
3. **Secondary Market** - It is a place where investor purchases an asset from another investor.

2.13 Assignment

Define stock Exchange and Role of Stock exchange?

2.14 Activities

Define the process of going public and what are the reasons for listing as per Wikipedia?

2.15 Case Study

Importance of Stock Exchange in Indian market, Give your comments.

2.16 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson/ Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G. Luenberger, Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.
6. Portfolio Management –S. Kevin – Prentice Hall India.

UNIT 3: FUNDAMENTAL ANALYSIS AND TECHNICAL ANALYSIS

Unit Structure

3.0 Learning Objectives

3.1 Introduction

3.2 Fundamental Analysis

3.2.1 Two Analytical Models

3.2.2 Use by Different Portfolio Styles

3.2.3 Top-down and Bottom-up

3.2.4 Procedures for Analysis

3.3 Fundamental Analysis for Traders

3.4 Technical Analysis

3.4.1 Principles of Technical Analysis

3.4.2 Criticism

3.4.3 Lack of Evidence

3.5 Efficient Market Hypothesis

3.6 Systematic Trading and Technical Analysis

3.6.1 Combining Technical Analysis with other Market Forecast Methods

3.6.2 Charting Terms and Indicators

3.7 Technical Analysis

3.8 Let Us Sum Up

3.9 Answer for Check Your Progress

3.10 Glossary

3.11 Assignment

3.12 Activities

3.13 Case Study

3.14 Further Readings

3.0 Learning Objectives

After learning this unit, you will be able to understand:

- Fundamental Analysis
- Efficient Market Hypothesis
- Systematic Trading

3.1 Introduction

Analysis of the balance sheet and income statements of companies in order to forecast their future stock price movements. Fundamental analysts consider past records of assets, earnings, sales, products, management, and markets in predicting future trends in these indicators of a company's success or failure.

3.2 Fundamental Analysis

A method of evaluating a security by attempting to measure its intrinsic value by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like the overall economy and industry conditions) and individually specific factors (like the financial condition and management of companies).

The end goal of performing fundamental analysis is to produce a value that an investor can compare with the security's current price in hopes of figuring out what sort of position to take with that security (under-priced = buy, overpriced = sell or short).

This method of security analysis is considered to be the opposite of technical analysis. 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, and information about the bond issuer, such as potential changes in credit ratings. For assessing stocks, 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 users of fundamental analysis is the Oracle of Omaha, Warren Buffett, who has been well known for successfully employing fundamental analysis to pick securities. His abilities have turned him into a billionaire.

Economics: research of such factors as interest rates, gross national product, inflation, unemployment, and inventories as tools to predict the direction of the economy.

Investment: analysis of the balance sheet and income statements of companies in order to forecast their future stock price movements. The other major school of stock market analysis is Technical Analysis which relies on price and volume movements of stocks and does not concern itself with financial statistics.

Fundamental analysis of a business involves analyzing its income statement, financial statements and health, its management and competitive advantages, and its competitors and markets.

The analysis is performed on historical and present data, but with the goal to make financial projections. There are several possible objectives:

- To conduct a company stock valuation and predict its probable price evolution,
- To make projection on its business performance,
- To evaluate its management and make internal business decisions,
- To calculate its credit risk.

3.2.1 Two Analytical Models

When the objective of the analysis is to determine what stock to buy and at what price, there are two basic methodologies.

1. Fundamental analysis maintains that markets may misprice a security in the short run but that the "correct" price will eventually be reached. Profits can be made by trading the mispriced security and then waiting for the market to recognize its "mistake" and reprise the security.
2. Technical analysis maintains that all information is reflected already in the stock price, so fundamental analysis is a waste of time. Trends 'are your friend' and sentiment changes predate and predict trend changes. Investors' emotional responses to price movements lead to recognizable price chart

patterns. Technical analysis does not care what the 'value' of a stock is. Their price predictions are only extrapolations from historical price patterns.

Investors can use both these different but somewhat complementary methods for stock picking. Many fundamental investors use technical for deciding entry and exit points. Many technical investors use fundamentals to limit their universe of possible stock to 'good' companies.

The choice of stock analysis is determined by the investor's belief in the different paradigms for "how the stock market works".

3.2.2 Use by Different Portfolio Styles

Investors may use fundamental analysis within different portfolio management styles.

- Buy and hold investors believe that latching onto good businesses allows the investor's asset to grow with the business. Fundamental analysis lets them find 'good' companies, so they lower their risk and probability of wipe-out.
- Managers may use fundamental analysis to correctly value 'good' and 'bad' companies. Even 'bad' company's stock goes up and down, creating opportunities for profits.
- Contrarian investors distinguish "in the short run, the market is a voting machine, not a weighing machine". Fundamental analysis allows you to make your own decision on value, and ignore the market.
- Value investors restrict their attention to under-valued companies, believing that 'it's hard to fall out of a ditch'. The value comes from fundamental analysis.
- Managers may use fundamental analysis to determine future growth rates for buying high priced growth stocks.
- Managers may also include fundamental factors along with technical factors into computer models (quantitative analysis).

3.2.3 Top-down and Bottom-up

Investors can use either a top-down or bottom-up approach.

- The top-down investor starts his analysis with global economics, including both international and national economic indicators, such as GDP growth rates, inflation, interest rates, exchange rates, productivity, and energy prices. He narrows his search down to regional/industry analysis of total sales, price levels, the effects of competing products, foreign competition, and entry or exit from the industry. Only then does he narrow his search to the best business in that area.
- The bottom-up investor starts with specific businesses, regardless of their industry/region.

3.2.4 Procedures for Analysis

The analysis of a business' health starts with financial statement analysis that includes ratios. It looks at dividends paid, operating cash flow, new equity issues and capital financing. The earnings estimates and growth rate projections published widely by Thomson Financial and others can be considered either 'fundamental' (they are facts) or 'technical' (they are investor sentiment) based on your perception of their validity.

The determined growth rates (of income and cash) and risk levels (to determine the discount rate) are used in various valuation models. The foremost is the discounted cash flow model, which calculates the present value of the future

- Dividends received by the investor, along with the eventual sale price. (Gordon model)
- earnings of the company, or
- Cash flows of the company.

The simple model commonly used is the Price/Earnings ratio. Implicit in this model of a perpetual annuity (Time value of money) is that the 'flip' of the P/E is the discount rate appropriate to the risk of the business. The multiple accepted is adjusted for expected growth (that is not built into the model).

Growth estimates are incorporated into the PEG ratio but the math does not hold up to analysis. Its validity depends on the length of time you think the growth will continue.

Computer modelling of stock prices has now replaced much of the subjective interpretation of fundamental data (along with technical data) in the industry. Since about year 2000, with the power of computers to crunch vast quantities of data, a new career has been invented. At some funds (called Quant Funds) the manager's decisions have been replaced by proprietary mathematical models.

Fundamental Analysis:

Introduction

So, you want to be a stock analyst? Perhaps not, but since you're reading this we'll assume that you at least want to understand stocks. Whether it's your burning desire to be a hotshot analyst on Wall Street or you just like to be hands-on with your own portfolio, you've come to the right spot.

Fundamental analysis is the cornerstone of investing. In fact, some would say that you aren't really investing if you aren't performing fundamental analysis. Because the subject is so broad, however, it's tough to know where to start. There are an endless number of investment strategies that are very different from each other, yet almost all use the fundamentals.

The goal of this tutorial is to provide a foundation for understanding fundamental analysis. It's geared primarily at new investors who don't know a balance sheet from an statement. While you may not be a "stock-picker extraordinaire" by the end of this tutorial, you will have a much more solid grasp of the language and concepts behind security analysis and be able to use this to further your knowledge in other areas without feeling totally lost.

The biggest part of fundamental analysis involves delving into the financial statements. Also known as quantitative analysis, this involves looking at revenue, expenses, assets, liabilities and all the other financial aspects of a company. Fundamental analysts look at this information to gain insight on a company's future performance. A good part of this tutorial will be spent learning about the balance sheet, income statement, cash flow statement and how they all fit together.

Fundamental Analysis: What Is It?

In this section we are going to review the basics of fundamental analysis, examine how it can be broken down into quantitative and qualitative factors, introduce the subject of intrinsic value and conclude with some of the downfalls of using this technique.

The Very Basics

When talking about stocks, fundamental analysis is a technique that attempts to determine a security's value by focusing on underlying factors that affect a company's actual business and its future prospects. On a broader scope, you can perform fundamental analysis on industries or the economy as a whole. The term simply refers to the analysis of the economic well-being of a financial entity as opposed to only its price movements.

Fundamental analysis serves to answer questions, such as:

- Is the company's revenue growing?
- Is it actually making a profit?
- Is it in a strong-enough position to beat out its competitors in the future?
- Is it able to repay its debts?
- Is management trying to "cook the books"?

Of course, these are very involved questions, and there are literally hundreds of others you might have about a company. It all really boils down to one question: Is the company's stock a good investment? Think of fundamental analysis as a toolbox to help you answer this question.

Note: The term fundamental analysis is used most often in the context of stocks, but you can perform fundamental analysis on any security, from a bond to a derivative.

Fundamentals: Quantitative and Qualitative

Followers of the efficient market hypothesis, however, are usually in disagreement with both fundamental and technical analysts. The efficient market hypothesis contends that it is essentially impossible to produce market-beating returns in the long run, through either fundamental or technical analysis. The rationale for this argument is that, since the market efficiently prices all stocks on an on-going basis, any opportunities for excess returns derived from fundamental (or technical) analysis would be almost immediately whittled away by the

market's many participants, making it impossible for anyone to meaningfully outperform the market over the long term.

Fundamental Analysis: Qualitative Factors - The Company

Before diving into a company's financial statements, we're going to take a look at some of the qualitative aspects of a company.

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 (Note: We'll get into more detail about the 10-K in the financial statements chapter. For now, just bear with us).

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.

Harvard Business School professor Michael Porter, distinguishes between strategic positioning and operational effectiveness. Operational effectiveness means a company is better than rivals at similar activities while competitive advantage means a company is performing better than rivals by doing different activities or performing similar activities in different ways. Investors should know that few companies are able to compete successfully for long if they are doing the same things as their competitors.

Professor Porter argues that, in general, sustainable competitive advantage gained by:

- A unique competitive position
- Clear trade-offs and choices vis-à-vis competitors
- Activities tailored to the company's strategy
- A high degree of fit across activities (it is the activity system, not the parts that ensure sustainability)
- A high degree of operational effectiveness

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.

So how does an average investor go about 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. Do they avoid questions, like politicians, or do they provide forthright answers?

2. Management Discussion and Analysis (MD and 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 and A is supposed to be frank commentary on the management's outlook. Sometimes the content is worthwhile, other times its 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 and 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 (See Putting Management under the Microscope), 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 and 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 defences (such as the Macaroni Defence 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 director's 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.

Fundamental Analysis: Introduction to Financial Statements

Financial statements are the medium by which a company discloses information concerning its financial performance. Followers of fundamental analysis use the quantitative information gleaned from financial statements to make investment decisions. Before we jump into the specifics of the three most important financial statements - income statements, balance sheets and cash flow statements - we will briefly introduce each financial statement's specific function, along with where they can be found.

- The Major Statements
- The Balance Sheet

The balance sheet represents a record of a company's assets, liabilities and equity at a particular point in time. The balance sheet is named by the fact that a business's financial structure balances in the following manner:

Assets = Liabilities + Shareholders' Equity

Assets represent the resources that the business owns or controls at a given point in time. This includes items such as cash, inventory, machinery and buildings. The other side of the equation represents the total value of the financing the company has used to acquire those assets. Financing comes as a result of liabilities or equity. Liabilities represent debt (which of course must be paid back), while equity represents the total value of money that the owners have contributed to the business - including retained earnings, which is the profit made in previous years.

The Income Statement

While the balance sheet takes a snapshot approach in examining a business, the income statement measures a company's performance over a specific time frame. Technically, you could have a balance sheet for a month or even a day, but you'll only see public companies report quarterly and annually.

The income statement presents information about revenues, expenses and profit that was generated as a result of the business' operations for that period.

Statement of Cash Flows

The statement of cash flows represents a record of a business' cash inflows and outflows over a period of time. Typically, a statement of cash flows focuses on the following cash-related activities:

- Operating Cash Flow (OCF): Cash generated from day-to-day business operations
- Cash from investing (CFI): Cash used for investing in assets, as well as the proceeds from the sale of other businesses, equipment or long-term assets
- Cash from financing (CFF): Cash paid or received from the issuing and borrowing of funds

The cash flow statement is important because it's very difficult for a business to manipulate its cash situation. There is plenty that aggressive accountants can do to manipulate earnings, but it's tough to fake cash in the bank. For this reason some investors use the cash flow statement as a more conservative measure of a company's performance.

10-K and 10-Q

Now that you have an understanding of what the three financial statements represent, let's discuss where an investor can go about finding them. In the United States, the Securities And Exchange Commission (SEC) requires all companies that are publicly traded on a major exchange to submit periodic filings detailing their financial activities, including the financial statements mentioned above.

Some other pieces of information that are also required are an auditor's report, management discussion and analysis (MD and A) and a relatively detailed description of the company's operations and prospects for the upcoming year.

All of this information can be found in the business' annual 10-K and quarterly 10-Q filings, which are released by the company's management and can be found on the internet or in physical form. The 10-K is an annual filing that discloses a business's performance over the course of the fiscal year. In addition to finding a business's financial statements for the most recent year, investors also have access to the business's historical financial measures, along with information detailing the operations of the business. This includes a lot of information, such as the number of employees, biographies of upper management, risks, future plans for growth, etc.

Businesses also release an annual report, which some people also refer to as the 10-K. The annual report is essentially the 10-K released in a fancier marketing format. It will include much of the same information, but not all, that you can find in the 10-K. The 10-K really is boring - it's just pages and pages of numbers, text and legalese. But just because it's boring doesn't mean it isn't useful. There is a lot of good information in a 10-K, and its required reading for any serious investor.

You can think of the 10-Q filing as a smaller version of a 10-K. It reports the company's performance after each fiscal quarter. Each year three 10-Q filings are released - one for each of the first three quarters. (Note: There is no 10-Q for the fourth quarter, because the 10-K filing is released during that time). Unlike the 10-K filing, 10-Q filings are not required to be audited. Here's a tip if you have trouble remembering which is which: think "Q" for quarter.

Fundamental Analysis

Other Important Sections Found in Financial Filings

The financial statements are not the only parts found in a business's annual and quarterly SEC filings. Here are some other noteworthy sections:

Management Discussion and Analysis (MD and A)

As a preface to the financial statements, a company's management will typically spend a few pages talking about the recent year (or quarter) and provide background on the company. This is referred to as the management discussion and analysis (MD and A). In addition to providing investors a clearer picture of what the company does, the MD and A also points out some key areas in which the company has performed well.

Don't expect the letter from management to delve into all the juicy details affecting the company's performance. The management's analysis is at their discretion, so understand they probably aren't going to be disclosing any negatives.

Here are some things to look out for:

- How candid and accurate are management's comments?
- Does management discuss significant financial trends over the past couple years? (As we've already mentioned, it can be interesting to compare the MD and as over the last few years to see how the message has changed and whether management actually followed through with its plan.)
- How clear are management's comments? If executives try to confuse you with big words and jargon, perhaps they have something to hide.

- Do they mention potential risks or uncertainties moving forward?

Disclosure is the name of the game. If a company gives a decent amount of information in the MD and A, it's likely that management is being upfront and honest. It should raise a red flag if the MD and A ignores serious problems that the company has been facing.

The Auditor's Report

The auditors' job is to express an opinion on whether the financial statements are reasonably accurate and provide adequate disclosure. This is the purpose behind the auditor's report, which is sometimes called the "report of independent accountants".

By law, every public company that trades stocks or bonds on an exchange must have its annual reports audited by a certified public accountants firm. An auditor's report is meant to scrutinize the company and identify anything that might undermine the integrity of the financial statements.

The typical auditor's report is almost always broken into three paragraphs and written in the following fashion:

Independent Auditor's Report

Paragraph 1

Recounts the responsibilities of the auditor and directors in general and lists the areas of the financial statements that were audited.

Paragraph 2

Lists how the generally accepted accounting principles (GAAP) were applied, and what areas of the company were assessed.

Paragraph 3

It provides the auditor's opinion on the financial statements of the company being audited. This is simply an opinion, not a guarantee of accuracy.

While the auditor's report won't uncover any financial bombshells, audits give credibility to the figures reported by management. You'll only see unaudited financials for unlisted firms (those that trade OTCBB or on the Pink Sheets). While quarterly statements aren't audited, you should be very wary of any annual financials that haven't been given the accountants' stamp of approval.

The Notes to the Financial Statements

If the income statement, balance sheet and statement of cash flows are the heart of the financial statements, then the footnotes are the arteries that keep everything connected. Therefore, if you aren't reading the footnotes, you're missing out on a lot of information.

The footnotes list important information that could not be included in the actual ledgers. For example, they list relevant things like outstanding leases, the maturity dates of outstanding debt and details on compensation plans, such as stock options, etc.

Generally speaking there are two types of footnotes:

Accounting Methods - This type of footnote identifies and explains the major accounting policies of the business that the company feels that you should be aware of. This is especially important if a company has changed accounting policies. It may be that a firm is practicing "cookie jar accounting" and is changing policies only to take advantage of current conditions in order to hide poor performance.

Disclosure - The second type of footnote provides additional disclosure that simply could not be put in the financial statements. The financial statements in an annual report are supposed to be clean and easy to follow. To maintain this cleanliness, other calculations are left for the footnotes. For example, details of long-term debt - such as maturity dates and the interest rates at which debt was issued - can give you a better idea of how borrowing costs are laid out. Other areas of disclosure include everything from pension plan liabilities for existing employees to details about ominous legal proceedings involving the company.

The majority of investors and analysts read the balance sheet, income statement and cash flow statement but, for whatever reason, the footnotes are often ignored. What sets informed investors apart is digging deeper and looking for information that others typically wouldn't. No matter how boring it might be, read the fine print - it will make you a better investor.

Fundamental Analysis: The Income Statement

The income statement is basically the first financial statement you will come across in an annual report or quarterly Securities And Exchange Commission (SEC) filing.

It also contains the numbers most often discussed when a company announces its results - numbers such as revenue, earnings and earnings per share. Basically, the income statement shows how much money the company generated (revenue), how much it spent (expenses) and the difference between the two (profit) over a certain time period.

When it comes to analyzing fundamentals, the income statement lets investors know how well the company's business is performing - or, basically, whether or not the company is making money. Generally speaking, companies ought to be able to bring in more money than they spend or they don't stay in business for long. Those companies with low expenses relative to revenue - or high profits relative to revenue - signal strong fundamentals to investors.

Revenue as an investor signal

Revenue, also commonly known as sales, is generally the most straightforward part of the income statement. Often, there is just a single number that represents all the money a company brought in during a specific time period, although big companies sometimes break down revenue by business segment or geography. The best way for a company to improve profitability is by increasing sales revenue.

High operating margins can mean the company has effective control of costs, or that sales are increasing faster than operating costs. Operating profit also gives investors an opportunity to do profit-margin comparisons between companies that do not issue a separate disclosure of their cost of goods sold figures (which are needed to do gross margin analysis). Operating profit measures how much cash the business throws off, and some consider it a more reliable measure of profitability since it is harder to manipulate with accounting tricks than net earnings.

Net income generally represents the company's profit after all expenses, including financial expenses, have been paid. This number is often called the "bottom line" and is generally the figure people refer to when they use the word "profit" or "earnings".

When a company has a high profit margin, it usually means that it also has one or more advantages over its competition. Companies with high net profit margins have a bigger cushion to protect themselves during the hard times. Companies with low profit margins can get wiped out in a downturn. And companies with profit margins reflecting a competitive advantage is able to

improve their market share during the hard times - leaving them even better positioned when things improve again.

Fundamental Analysis: The Balance Sheet

Investors often overlook the balance sheet. Assets and liabilities aren't nearly as sexy as revenue and earnings. While earnings are important, they don't tell the whole story.

The balance sheet highlights the financial condition of a company and is an integral part of the financial statements.

The Snapshot of Health

The balance sheet, also known as the statement of financial condition, offers a snapshot of a company's health. It tells you how much a company owns (its assets), and how much it owes (its liabilities). The difference between what it owns and what it owes is its equity, also commonly called "net assets" or "shareholders equity".

The balance sheet tells investors a lot about a company's fundamentals: how much debt the company has, how much it needs to collect from customers (and how fast it does so), how much cash and equivalents it possesses and what kinds of funds the company has generated over time.

The Balance Sheet's Main Three

Assets, liability and equity are the three main components of the balance sheet. Carefully analysed, they can tell investors a lot about a company's fundamentals.

Assets

There are two main types of assets: current assets and non-current assets. Current assets are likely to be used up or converted into cash within one business cycle - usually treated as twelve months. Three very important current asset items found on the balance sheet are: cash, inventories and accounts receivables.

Investors normally are attracted to companies with plenty of cash on their balance sheets. After all, cash offers protection against tough times, and it also gives companies more options for future growth. Growing cash reserves often signal strong company performance. Indeed, it shows that cash is accumulating so quickly that management doesn't have time to figure out how to make use of it. A dwindling cash pile could be a sign of trouble. That said, if loads of cash are more or less a permanent feature of the company's balance sheet, investors need to ask why the money is not being put to use. Cash could be there because management

has run out of investment opportunities or is too short-sighted to know what to do with the money.

Inventories are finished products that haven't yet sold. As an investor, you want to know if a company has too much money tied up in its inventory. Companies have limited funds available to invest in inventory. To generate the cash to pay bills and return a profit, they must sell the merchandise they have purchased from suppliers. Inventory turnover (cost of goods sold divided by average inventory) measures how quickly the company is moving merchandise through the warehouse to customers. If inventory grows faster than sales, it is almost always a sign of deteriorating fundamentals.

Receivables are outstanding (uncollected bills). Analyzing the speed at which a company collects what it's owed can tell you a lot about its financial efficiency. If a company's collection period is growing longer, it could mean problems ahead. The company may be letting customers stretch their credit in order to recognize greater top-line sales and that can spell trouble later on, especially if customers face a cash crunch. Getting money right away is preferable to waiting for it - since some of what is owed may never get paid. The quicker a company gets its customers to make payments, the sooner it has cash to pay for salaries, merchandise, equipment, loans, and best of all, dividends and growth opportunities.

Non-current assets are defined as anything not classified as a current asset. This includes items that are fixed assets, such as property, plant and equipment (PP and E). Unless the company is in financial distress and is liquidating assets, investors need not pay too much attention to fixed assets. Since companies are often unable to sell their fixed assets within any reasonable amount of time they are carried on the balance sheet at cost regardless of their actual value. As a result, it's possible for companies to grossly inflate this number, leaving investors with questionable and hard-to-compare asset figures.

Liabilities

There are current liabilities and non-current liabilities. Current liabilities are obligations the firm must pay within a year, such as payments owing to suppliers. Non-current liabilities, meanwhile, represent what the company owes in a year or more time. Typically, non-current liabilities represent bank and bondholder debt.

You usually want to see a manageable amount of debt. When debt levels are falling, that's a good sign. Generally speaking, if a company has more assets than liabilities, then it is in decent condition. By contrast, a company with a large

amount of liabilities relative to assets ought to be examined with more diligence. Having too much debt relative to cash flows required to pay for interest and debt repayments is one way a company can go bankrupt.

Look at the quick ratio. Subtract inventory from current assets and then divide by current liabilities. If the ratio is 1 or higher, it says that the company has enough cash and liquid assets to cover its short-term debt obligations.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$$

Equity

Equity represents what shareholders own, so it is often called shareholder's equity. As described above, equity is equal to total assets minus total liabilities.

$$\text{Equity} = \text{Total Assets} - \text{Total Liabilities}$$

The two important equity items are paid-in capital and retained earnings. Paid-in capital is the amount of money shareholders paid for their shares when the stock was first offered to the public. It basically represents how much money the firm received when it sold its shares. In other words, retained earnings are a tally of the money the company has chosen to reinvest in the business rather than pay to shareholders. Investors should look closely at how a company puts retained capital to use and how a company generates a return on it.

Most of the information about debt can be found on the balance sheet - but some assets and debt obligations are not disclosed there. For starters, companies often possess hard-to-measure intangible assets. Corporate intellectual property (items such as patents, trademarks, copyrights and business methodologies), goodwill and brand recognition are all common assets in today's marketplace. But they are not listed on company's balance sheets.

There is also off-balance sheet debt to be aware of. This is form of financing in which large capital expenditures are kept off of a company's balance sheet through various classification methods. Companies will often use off-balance-sheet financing to keep the debt levels low.

Fundamental Analysis: A Brief Introduction To Valuation

The idea behind discounted cash flow is simple; its practical application can be a different matter. Its calculation is as follows:

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

CF = Cash Flow

r = discount rate (WACC)

There are several different techniques within the discounted cash flow realm of valuation, essentially differing on what type of cash flow is used in the analysis. The dividend discount model focuses on the dividends the company pays to shareholders, while the cash flow model looks at the cash that can be paid to shareholders after all expenses, reinvestments and debt repayments have been made. But conceptually they are the same, as it is the present value of these streams that are taken into consideration.

As we mentioned before, the difficulty lies in the implementation of the model as there are a considerable amount of estimates and assumptions that go into the model. As you can imagine, forecasting the revenue and expenses for a firm five or 10 years into the future can be considerably difficult. Nevertheless, DCF is a valuable tool used by both analysts and everyday investors to estimate a company's value.

Ratio Valuation

Financial ratios are mathematical calculations using figures mainly from the financial statements, and they are used to gain an idea of a company's valuation and financial performance. Some of the most well-known valuation ratios are price-to-earnings and price-to-book. Each valuation ratio uses different measures in its calculations. For example, price-to-book compares the price per share to the company's book value.

The calculations produced by the valuation ratios are used to gain some understanding of the company's value. The ratios are compared on an absolute basis, in which there are threshold values. For example, in price-to-book, companies trading below '1' are considered undervalued. Valuation ratios are also compared to the historical values of the ratio for the company, along with comparisons to competitors and the overall market itself.

Check your progress 1

1. Cash generated from day-to-day business operations is known as:
 - a. Operating Cash Flow (OCF)
 - b. Cash from investing (CFI)
 - c. Cash from financing (CFF)
 - d. All of these
2. The Equity can be calculated as:
 - a. Total Assets + Total Liabilities
 - b. Total Assets – Total Liabilities
 - c. Total Assets/Total Liabilities
 - d. Total Assets * Total Liabilities

3.3 Fundamental Analysis for Traders

The use of the fundamental approach in trading has long been an object of argument between its followers and those who mercilessly deride the method's usefulness. We will not take sides in this eternal argument, but we will try to find out how the average trader can benefit from fundamental analysis. Read on to discover the strengths and weaknesses of fundamental analysis as a traders' tool.

The Mechanics

The fundamental approach is based on an in-depth and all-around study of the underlying forces of the economy, conducted to provide data that can be used to forecast future prices and market developments. Fundamental analysis can be composed of many different aspects: the analysis of the economy as the whole, the analysis of an industry or that of an individual company. A combination of the data is used to establish the true current value of stocks, to determine whether they are over or under-valued and to predict the future value of the stocks based on this information.

Methodology-wise, different approaches can be taken. For example, industry groups can be compared with other industry groups, while specific companies within those groups are compared against each other.

Role in Trading

The expediency of applying fundamental analysis to trading depends on several criteria. The first factor that should be taken into consideration is the potential profit sources you are targeting. A stock exchange is no factory and it does not produce any kind of material value. If you are really after a profit you need to know whose loss can be turned into your profit. Moreover, to trade profitably, you need to know the reasons for which somebody else's money can become yours.

There are three profit sources

- Your fellow traders, specifically those who are less knowledgeable, less experienced or simply too slow on the draw, can be a source of profit for you. Of course, the traders are out to make money, but many of them will also lose money. Here you can profit by applying better trading skills and better quality trading systems.

Fundamental Analysis for Traders

- Initial public offerings and companies issuing additional stock can provide you with an opportunity to cash in on the discrepancy between the IPO price of the stocks and the prices at which they will eventually settle. As a trader, your earnings will be well-deserved compensation for the risk you take on, but this level of risk can be reduced by using technical analysis.
- Established companies, mutual funds and other large financial organizations make big moves in the financial markets, and can act as portfolio builders for investors and traders. In this case, a trader's profit will act as compensation for the risks taken. In fact, the trader insures major investors against fluctuations in the cost of the stocks by buying the related risks and trying to use them.

Therefore, technical analysis can be considered a means of profiting from less experienced traders, whereas one of the ways fundamental analysis can be used is as a tool for making money on a major market player (a major corporation or government).

As far as short-term trading is concerned, fundamental analysis cannot be used as a "tactical", short-term decision-making method. Technical analysis enables traders to gain a vision of the market and make the right move at the right time, while fundamental analysis should be applied strategically, over longer periods of time. It helps an investor obtain information about the overall state of the market, attractiveness and state of a specific security as compared to other

securities, however, when and how to react to the information, derived through fundamental analysis, is determined using technical analysis. Regardless of your trading role and attitude to fundamental analysis (and the amount of trust you put in it), you have to be knowledgeable about a number of things to use this approach. The underlying principles of fundamental analysis are based on a number of factors that affect the economy. Year in year out, these factors are becoming increasingly volatile and harder to predict. For a person who isn't educated in the required related fields, trying to find the key morsel of fundamental information in that motley hodge-podge of economic, political and other data and correctly interpreting it can become a wild goose chase.

Check your progress 2

1. Tactical is a
 - a. long-term decision-making method
 - b. short-term decision-making method
 - c. short-term stock-making method
 - d. short-term equity-making method

3.4 Technical Analysis

A method of evaluating securities by analyzing 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 charts and other tools to identify patterns that can suggest future activity.

Technical analysts believe that the historical performance of stocks and markets are indications of future performance.

In a shopping mall, a fundamental analyst would go to each store, study the product that was being sold, and then decide whether to buy it or not. By contrast, a technical analyst would sit on a bench in the mall and watch people go into the stores. Disregarding the intrinsic value of the products in the store, his or her decision would be based on the patterns or activity of people going into each store.

Forecasting price movements by analysis of trading volume, supply and demand, short-term and long-term market trends, and other market related factors.

An important premise in technical analysis is that certain price-volume factors repeat themselves, and can be illustrated graphically by chart patterns, a process known as charting. For example, a point and figure chart, showing the upward and downward movement of a security in a given time period; an ascending top, showing continually rising prices and the beginning of a price rally; a head and shoulders pattern, depicting the reversal of a trend; and a double top, signaling the end of a rally. First used by commodities traders, charting is a frequently used analytical tool in the stock market, foreign exchange, and financial futures. Technical analysis differs from fundamental analysis, which examines financial information, such as company earnings and capital formation, and is concerned foremost with the financial strength and profitability of an issuer of securities.

Technical analysts believe that, by diagramming the movement of a market, they can determine market swings in advance. According to the theory, the best time to sell (take a short position) is the start of a major downtrend; the best time to buy is when prices, and trends, are heading upward. The drawback with this methodology is that chart patterns often are recognized only after the fact, that is, after events have run their course. In most situations, the presumed bargains represented by trading patterns are temporary opportunities and usually disappear once large numbers of people have acted.

General Description

Technical analysts (or technicians) identify non-random price patterns and trends in financial markets and attempt to exploit those patterns. While technicians use various methods and tools, the study of price charts is primary. Technicians especially search for archetypal patterns, such as the well-known head and shoulders reversal pattern, and also study such indicators as price, volume, and moving averages of the price. Many technical analysts also follow indicators of investor psychology (market sentiment).

Technicians seek to forecast price movements such that large gains from successful trades exceed more numerous but smaller losing trades, producing positive returns in the long run through proper risk control and money management.

There are several schools of technical analysis. Adherents of different schools (for example, candlestick charting, Dow Theory, and Elliott wave theory) may ignore the other approaches, yet many traders combine elements from more than one school. Technical analysts use judgment gained from experience to decide which pattern a particular instrument reflects at a given time, and what the

interpretation of that pattern should be. Technical analysts may disagree among themselves over the interpretation of a given chart.

Technical analysis is frequently contrasted with fundamental analysis, the study of economic factors that some analysts say can influence prices in financial markets. Pure technical analysis holds that prices already reflect all such influences before investors are aware of them, hence the study of price action alone. Some traders use technical or fundamental analysis exclusively, while others use both types to make trading decisions.

History

The principles of technical analysis derive from the observation of financial markets over hundreds of years. The oldest known example of technical analysis was a method used by Japanese traders as early as the 18th century, which evolved into the use of candlestick techniques, and is today a main charting tool.

Dow Theory is based on the collected writings of Dow Jones co-founder and editor Charles Dow, and inspired the use and development of modern technical analysis from the end of the 19th century. Modern technical analysis considers Dow Theory its cornerstone.

Many more technical tools and theories have been developed and enhanced in recent decades, with an increasing emphasis on computer-assisted techniques.

3.4.1 Principles of Technical Analysis

Technicians say that a market's price reflects all relevant information, so their analysis looks more at "internals" than at "externals" such as news events. Price action also tends to repeat itself because investors collectively tend toward patterned behaviour -- hence technicians' focus on identifiable trends and conditions.

a) Market Action Discounts Everything

Based on the premise that all relevant information is already reflected by prices, technical analysts believe it is redundant to do fundamental analysis -- they say news and news events do not significantly influence price, and cite supporting research such as the study by Cutler, Poterba, and Summers titled "What Moves Stock Prices?"

b) Prices Move In Trends

Technical analysts believe that prices trend. Technicians say that markets trend up, down, or sideways (flat). This basic definition of price trends is the one put forward by Dow Theory.



Fig 3.1 AOL Time Warner Price Action.

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.

c) History Tends To Repeat Itself

Technical analysts believe that investors collectively repeat the behavior of the investors that preceded them. Technical analysis is not limited to charting, yet is always concerned with price trends. 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.

3.4.2 Criticism

The Wall Street Journal Europe states "Whether technical analysis is really useful is a matter of some dispute on Wall Street. Some investors believe that it is impossible to forecast the market's ups and downs. Academic studies have shown that when most people, professionals and amateurs alike, try to move money in and out of stocks to beat market fluctuations, they tend to wind up with losses." The same article shows how several technical analysts can simultaneously make contradictory predictions.

3.4.3 Lack of Evidence

Critics of technical analysis include well known fundamental analysts. For example, Peter Lynch once commented, "Charts are great for predicting the past." Warren Buffett has said, "I realized technical analysis didn't work when I turned the charts upside down and didn't get a different answer" and "If past history was all there was to the game, the richest people would be librarians."

Some academic studies say technical analysis has little predictive power, but other studies say it may produce excess returns. For example, measurable forms of technical analysis, such as non-linear prediction using neural networks, have been shown to occasionally produce 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."

Cheol-Ho Park and Scott H. Irwin reviewed 95 modern studies on the profitability of technical analysis and said 56 of them find positive results, 20 obtain negative results, and 19 indicate mixed results: "Despite the positive evidence...most empirical studies are subject to various problems in their testing procedures, e.g., data snooping, ex post selection of trading rules or search technologies, and difficulties in estimation of risk and transaction costs. Future research must address these deficiencies in testing in order to provide conclusive evidence on the profitability of technical trading strategies."

However, 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."

Check your progress 3

1. Which among the following is related to technical analysis?

- | | |
|-------------------------|------------------------|
| a. Candlestick charting | c. Elliott wave theory |
| b. Dow Theory | d. All of these |

3.5 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." EMH advocates say that if prices quickly reflect all relevant information, no method (including technical analysis) can "beat the market." Developments which influence prices occur randomly and are unknowable in advance.

Technicians say that EMH ignores the way markets work, in that many investors base their expectations on past earnings, track record, etc. 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 behavioural finance, specifically that people are not the rational participants EMH makes them out to be. Technicians have long said that irrational human behaviour influences stock prices, and that this behaviour leads to predictable outcomes. Author David Aronson says that the theory of behavioural finance blends with the practice of technical analysis:

By considering the impact of emotions, cognitive errors, irrational preferences, and the dynamics of group behaviour, behavioural 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 regularity is known to market participants, people will act in such a way that prevents it from happening in the future."

Technicians say the EMH and Random Walk theories both ignore the realities of markets, in that participants are not completely rational (they can be greedy, overly risky, etc.) and that current price moves are not independent of previous moves (technicians point to charts similar to AOL above.) Critics reply that one can find virtually any chart pattern after the fact, but that this does not prove that such patterns are predictable. Technicians maintain that both theories would also invalidate numerous other trading strategies such as index arbitrage, statistical arbitrage and many other trading systems.

Industry

Globally, the industry is represented by The International Federation of Technical Analysts (IFTA). In the United States the industry is represented by two national organizations: the Market Technicians Association (MTA), and the American Association of Professional Technical Analysts (AAPTA). In Canada the industry is represented by the Canadian Society of Technical Analysts.

Use of Technical Analysis

Many traders say that trading in the direction of the trend is the most effective means to be profitable in financial or commodities markets. John W. Henry, Larry Hite, Ed Seykota, Richard Dennis, William Eckhardt, Victor Sperandeo, Michael Marcus and Paul Tudor Jones (some of the so-called Market Wizards in the popular book of the same name by Jack D. Schwager) have each amassed massive fortunes via the use of technical analysis and its concepts. George Lane, a technical analyst, coined one of the most popular phrases on Wall Street, "The trend is your friend!"

Many non-arbitrage algorithmic trading systems rely on the idea of trend-following, as do many hedge funds. A relatively recent trend, both in research and industrial practice, has been the development of increasingly sophisticated automated trading strategies. These often rely on underlying technical analysis principles.

Check your progress 4

1. Efficient market hypothesis where public information is reflected in current market prices is known as:
 - a. weak form efficiency
 - b. strong form efficiency
 - c. market efficiency
 - d. semi strong efficiency

3.6 Systematic Trading and Technical Analysis

Neural Networks

Since the early 90's 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. Their use comes in because they can learn to detect complex patterns in data. In mathematical terms, they are universal non-linear function approximates 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.

In addition, as ANNs are essentially non-linear statistical models, their accuracy and prediction capabilities can be both mathematically and empirically tested. In various studies neural networks used for generating trading signals have significantly outperformed buy-hold strategies as well as traditional linear technical analysis methods.

While the advanced mathematical nature of such adaptive systems have 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.

Rule-based Trading

Rule-based trading is an approach to make one's trading plans by strict and clear-cut rules. Unlike some other technical methods or most fundamental

analysis, it defines a set of rules that determines all trades, leaving minimal discretion.

For instance, a trader might make a set of rules stating that he will take a long position whenever the price of a particular instrument closes above its 50-day moving average, and shorting it whenever it drops below.

3.6.1 Combining Technical Analysis with other Market Forecast Methods

John Murphy in his book "Technical Analysis of the Financial Markets", says 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 such approach, known as Fusion Analysis overlays fundamental with technical analysis, in an attempt to improve portfolio manager performance. Another advocate for this approach is John Bollinger, who coined the term Rational Analysis as the intersection of technical analysis and fundamental analysis.

Technical analysis is also often combined with quantitative analysis and economics. For example, neural networks may be used to help identify intermarket 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.

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

3.6.2 Charting Terms and Indicators

Widely-known technical analysis concepts include:

- Accumulation/distribution index—based on the close within the day's range.
- Average true range - averaged daily trading range.
- Bollinger bands - a range of price volatility.

- Breakout - when a price passes through and stays above an area of support or resistance.
- Commodity Channel Index - identifies cyclical trends.
- Elliott wave principle and the golden ratio to calculate successive price movements and retracements.
- Hikkake Pattern - pattern for identifying reversals and continuations.
- MACD - moving average convergence/divergence.
- Momentum - the rate of price change.
- Money Flow - the amount of stock traded on days the price went up.
- Moving average - lags behind the price action.
- On-balance volume - the momentum of buying and selling stocks.
- PAC charts - two-dimensional method for charting volume by price level.
- 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.
- Point and figure charts - charts based on price without time.
- Profitability - measure to compare performances of different trading systems or different investments within one system.
- Relative Strength Index (RSI) - oscillator showing price strength.
- Resistance - an area that brings on increased selling.
- Rahul Mohindar Oscillator - a trend identifying indicator.
- Stochastic oscillator, close position within recent trading range.
- Support - an area that brings on increased buying.
- Trend line - a sloping line of support or resistance.
- Trix - an oscillator showing the slope of a triple-smoothed exponential moving average, developed in the 1980s by Jack Hutson.

Check your progress 5

1. _____ is a two-dimensional method for charting volume by price level.
 - a. On-balance volume
 - b. PAC charts
 - c, Parabolic SAR
 - d. Pivot point

3.7 Technical Analysis

Introduction

The methods used to analyse securities and make investment decisions fall into two very broad categories: fundamental analysis and technical analysis. Fundamental analysis involves analyzing the characteristics of a company in order to estimate its value. Technical analysis takes a completely different approach; it doesn't care one bit about the "value" of a company or a commodity. Technicians (sometimes called chartists) are only interested in the price movements in the market.

Despite all the fancy and exotic tools it employs, technical analysis really just studies supply and demand in a market in an attempt to determine what direction, or trend, will continue in the future. In other words, technical analysis attempts to understand the emotions in the market by studying the market itself, as opposed to its components. If you understand the benefits and limitations of technical analysis, it can give you a new set of tools or skills that will enable you to be a better trader or investor.

In this tutorial, we'll introduce you to the subject of technical analysis. It's a broad topic, so we'll just cover the basics, providing you with the foundation you'll need to understand more advanced concepts down the road.

Technical Analysis: The Use of Trend

One of the most important concepts in technical analysis is that of trend. The meaning in finance isn't all that different from the general definition of the term - a trend is really nothing more than the general direction in which a security or market is headed. Take a look at the chart below:

In Figure 3.2 is up. However, it's not always this easy to see a trend:

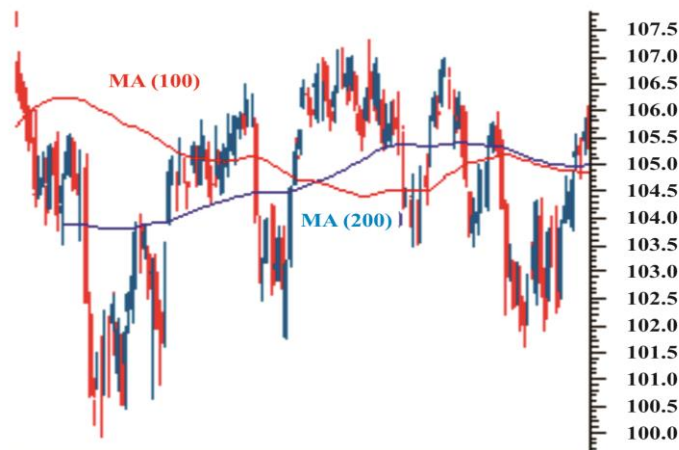


Fig. 3.2 There is lots of ups and downs in this chart which not shows direction.

A More Formal Definition

In any given chart, you will probably notice that prices do not tend to move in a straight line in any direction, but rather in a series of highs and lows. In technical analysis, it is the movement of the highs and lows that constitutes a trend.

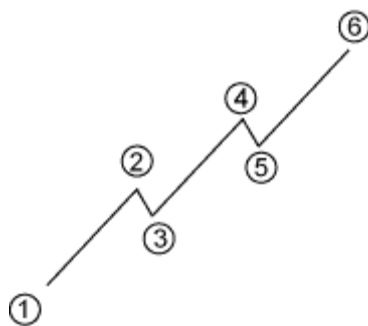


Fig 3.3 Tend to move in a straight line

Figure 3.3 is an example of an uptrend. Point 2 in the chart is the first high, which is determined after the price falls from this point. Point 3 is the low that is established as the price falls from the high. The short-term trends are components of both major and intermediate trends. Take a look a Figure 3.4 to get a sense of how these three trend lengths might look.

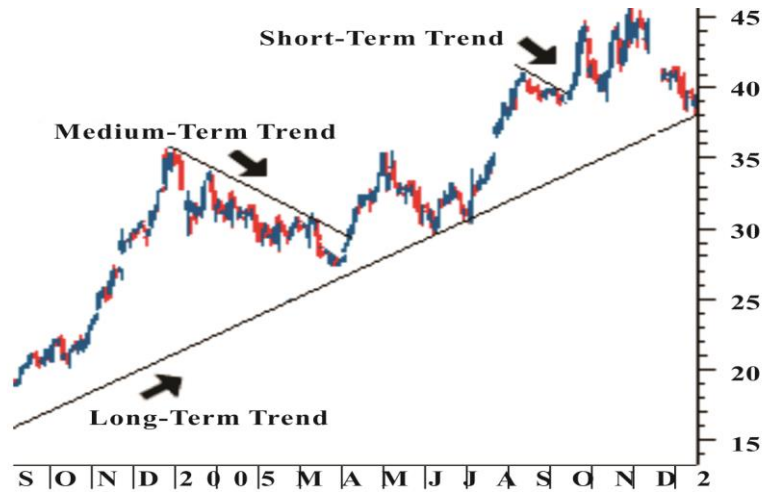


Fig 3.4 Three trend lengths might look

When analyzing trends, it is important that the chart is constructed to best reflect the type of trend being analysed. To help identify long-term trends, weekly charts or daily charts spanning a five-year period are used by chartists to get a better idea of the long-term trend. A trend line is a simple charting technique that adds a line to a chart to represent the trend in the market or a stock.

As you can see in Figure 3.5, an upward trend line is drawn at the lows of an upward trend. This line represents the support the stock has every time it moves from a high to a low.

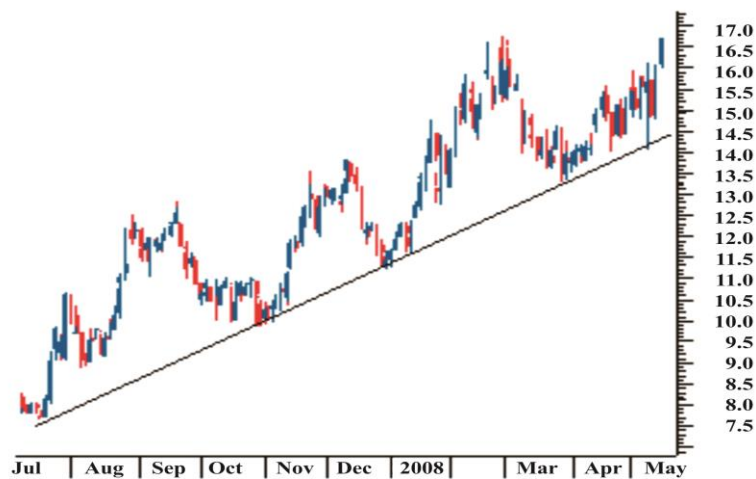


Fig. 3.5 Upward trend line is drawn

A channel, or channel lines, is the addition of two parallel trend lines that act as strong areas of support and resistance. The upper trend line connects a series of highs, while the lower trend line connects a series of lows. A channel can

slope upward, downward or sideways but, regardless of the direction, the interpretation remains the same.

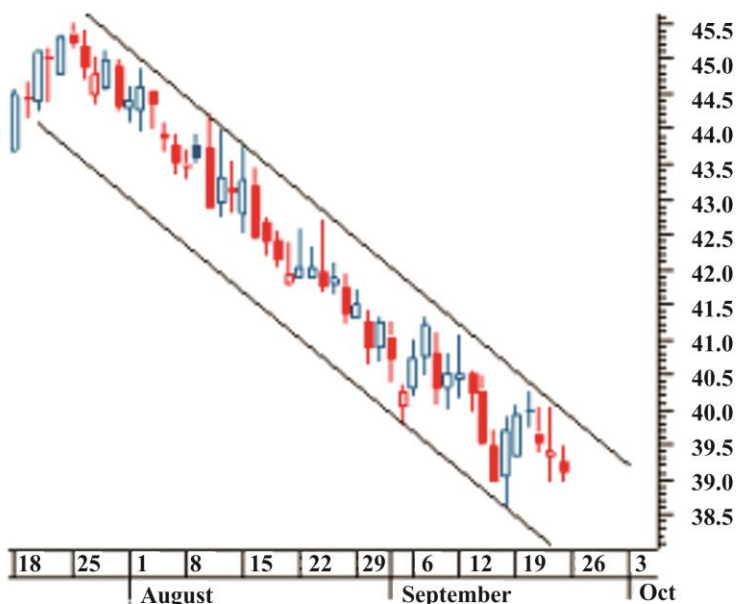


Fig. 3.6 Downward trend line is drawn

Figure 3.6 illustrates a descending channel on a stock chart; the upper trend line has been placed on the highs and the lower trend line is on the lows. The price has bounced off of these lines several times, and has remained range-bound for several months. As long as the price does not fall below the lower line or move beyond the upper resistance, the range-bound downtrend is expected to continue.

The Importance of Trend

It is important to be able to understand and identify trends so that you can trade with rather than against them. Two important sayings in technical analysis are "the trend is your friend" and "don't buck the trend," illustrating how important trend analysis is for technical traders.

Technical Analysis: Support and Resistance

Once you understand the concept of a trend, the next major concept is that of support and resistance. You'll often hear technical analysts talk about the ongoing battle between the bulls and the bears, or the struggle between buyers (demand) and sellers (supply). This is revealed by the prices a security seldom moves above (resistance) or below (support).



Fig 3.7 Prices a security seldom moves above

As you can see in Figure 3.7, support is the price level through which a stock or market seldom falls. Resistance, on the other hand, is the price level that a stock or market seldom surpasses

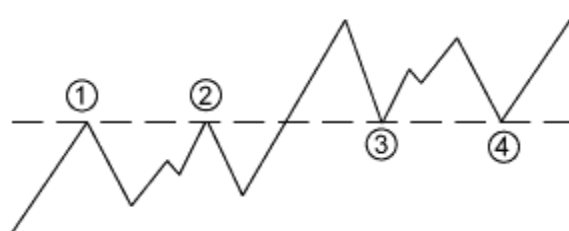


Fig 3.8 The price level through

For example, as you can see in Figure 3.8, the dotted line is shown as a level of resistance that has prevented the price from heading higher on two previous occasions (Points 1 and 2). However, once the resistance is broken, it becomes a level of support (shown by Points 3 and 4) by propping up the price and preventing it from heading lower again.

Many traders who begin using technical analysis find this concept hard to believe and don't realize that this phenomenon occurs rather frequently, even with some of the most well-known companies. For example, as you can see in Figure this phenomenon is evident on the Wal-Mart Stores Inc. (WMT) chart between 2003 and 2006. Notice how the role of the \$51 level changes from a strong level of support to a level of resistance.

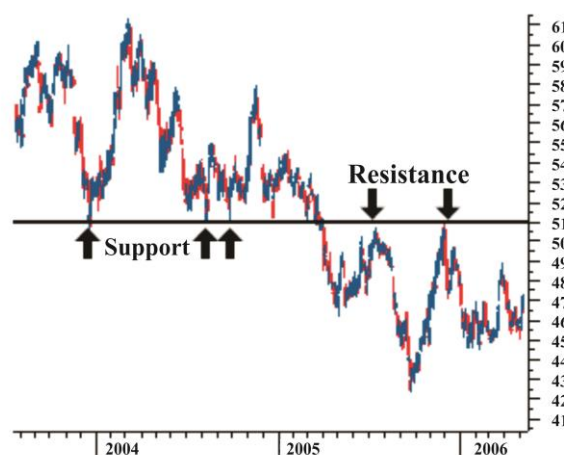


Fig 3.9 level of resistance

In almost every case, a stock will have both a level of support and a level of resistance and will trade in this range as it bounces between these levels. This is most often seen when a stock is trading in a generally sideways manner as the price moves through successive peaks and troughs, testing resistance and support.

The Importance of Support and Resistance

Support and resistance analysis is an important part of trends because it can be used to make trading decisions and identify when a trend is reversing. For example, if a trader identifies an important level of resistance that has been tested several times but never broken, he or she may decide to take profits as the security moves toward this point because it is unlikely that it will move past this level.

Support and resistance levels both test and confirm trends and need to be monitored by anyone who uses technical analysis. As long as the price of the share remains between these levels of support and resistance, the trend is likely to continue. It is important to note, however, that a break beyond a level of support or resistance does not always have to be a reversal. For example, if prices moved above the resistance levels of an upward trending channel, the trend have accelerated, not reversed. This means that the price appreciation is expected to be faster than it was in the channel.

Being aware of these important support and resistance points should affect the way that you trade a stock. Traders should avoid placing orders at these major points, as the area around them is usually marked by a lot of volatility. If you feel confident about making a trade near a support or resistance level, it is important that you follow this simple rule: do not place orders directly at the support or resistance level. This is because in many cases, the price never actually reaches

the whole number, but flirts with it instead. So if you're bullish on a stock that is moving toward an important support level, do not place the trade at the support level. Instead, place it above the support level, but within a few points. On the other hand, if you are placing stops or short selling, set up your trade price at or below the level of support.

Technical Analysis: What Is A Chart?

A chart is simply a graphical representation of a series of prices over a set time frame. For example, a chart may show a stock's price movement over a one-year period, where each point on the graph represents the closing price for each day the stock is traded:

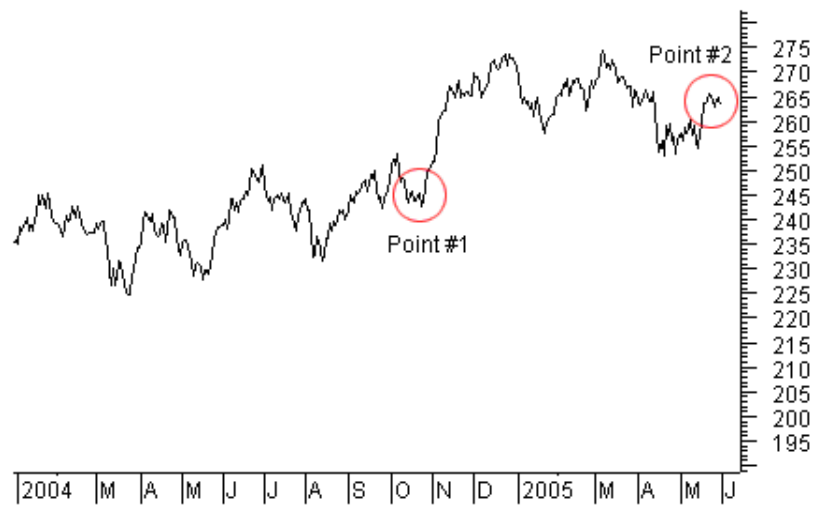


Fig 3.10 series of prices

Figure 3.10 provides an example of a basic chart showing price movements of a stock over a 1.5 year period. The bottom of the graph, running horizontally (x-axis), is the date or time scale. On the right hand side, running vertically (y-axis), the price of the security is shown. By looking at the graph we see that in October 2004 (Point 1), the price of this stock was around \$245, whereas in June 2005 (Point 2), the stock's price is around \$265. This tells us that the stock has risen between October 2004 and June 2005.

Chart Properties

There are several things that you should be aware of when looking at a chart, as these factors can affect the information that is provided. They include the time scale, the price scale and the price point properties used.

The Time Scale

The time scale refers to the range of dates at the bottom of the chart, which can vary from decades to seconds. The shorter the time frame, the more detailed the chart. Each data point can represent the closing price of the period or show the open, the high, the low and the close depending on the chart used.

Intraday charts plot price movement within the period of one day. This means that the time scale could be as short as five minutes or could cover the whole trading day from the opening bell to the closing bell.

Daily charts are comprised of a series of price movements in which each price point on the chart is a full day's trading condensed into one point. Again, each point on the graph can be simply the closing price or can entail the open, high, low and close for the stock over the day. These data points are spread out over weekly, monthly and even yearly time scales to monitor both short-term and intermediate trends in price movement.

Weekly, monthly, quarterly and yearly charts are used to analyze longer term trends in the movement of a stock's price. Each data point in these graphs will be a condensed version of what happened over the specified period. So for a weekly chart, each data point will be a representation of the price movement of the week. For example, if you are looking at a chart of weekly data spread over a five-year period and each data point is the closing price for the week, the price that is plotted will be the closing price on the last trading day of the week, which is usually a Friday.

The Price Scale and Price Point Properties

The price scale is on the right-hand side of the chart. It shows a stock's current price and compares it to past data points. This may seem like a simple concept in that the price scale goes from lower prices to higher prices as you move along the scale from the bottom to the top.

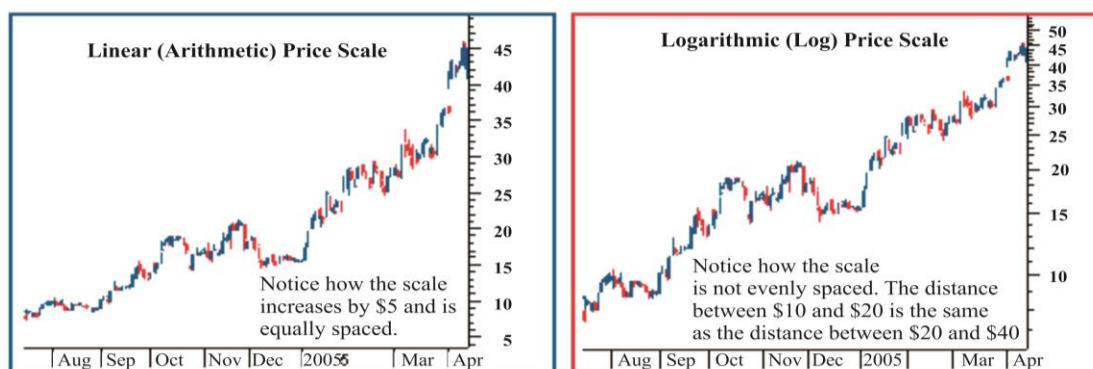


Fig 3.11 stock's current price and compares it to past data points

It shows if price scale is logarithmic, then distance between points will be equal in terms of percent change. On a logarithmic scale, the distance of the 100% price change from 10 to 20 will not be the same as the 25% change from 40 to 50. In Figure, the logarithmic price scale on the right leaves the same amount of space between 10 and 20 as it does between 20 and 40 because these both represent 100% increases.

Technical Analysis: Chart Types

There are four main types of charts used by investors and traders as per the information required.

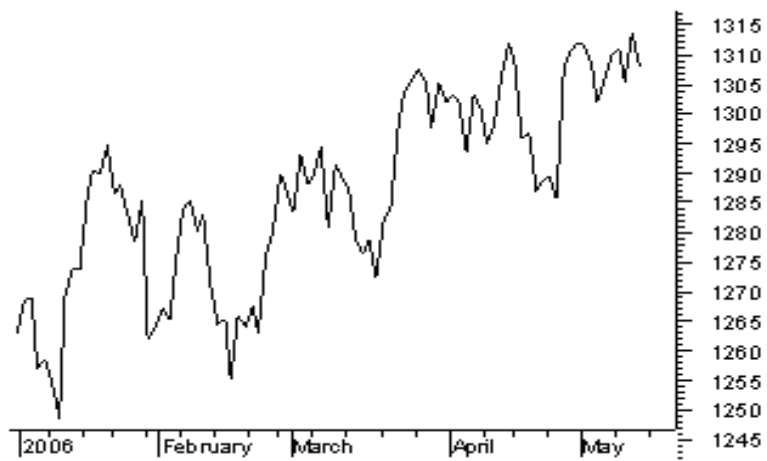


Fig 3.12 A line chart

The bar chart expands on line chart by adding pieces of information to data point. It contains series of vertical lines showing data point. Vertical line shows high and low for trading period with closing price. The close and open are shown on the vertical line by horizontal dash. The opening price on bar chart is shown by dashes on left side of vertical bar.

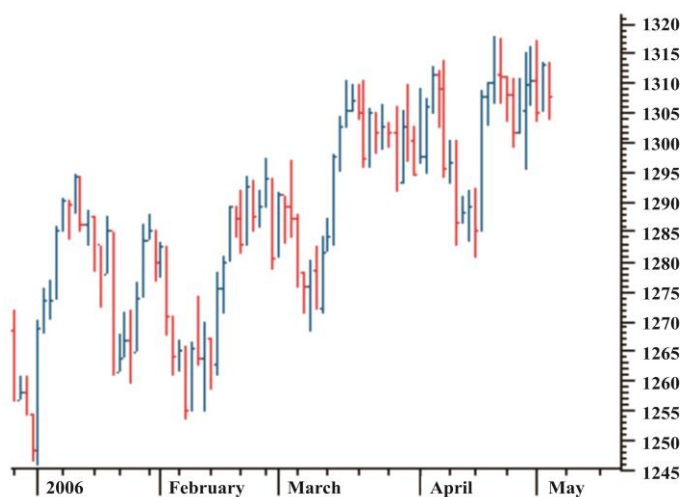


Fig 3.13 A bar chart

The candlestick chart is similar to a bar chart, but it differs in the way that it is visually constructed. Similar to the bar chart, the candlestick also has a thin vertical line showing the period's trading range.

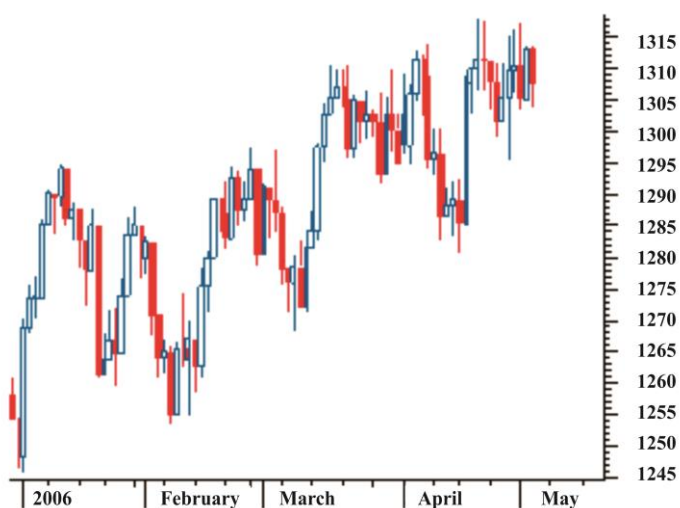


Fig 3.14 A candlestick chart

Point and Figure Charts

The point and figure chart is not well known or used by the average investor but it has had a long history of use dating back to the first technical traders. This type of chart reflects price movements and is not as concerned about time and volume in the formulation of the points. The point and figure chart removes the noise, or insignificant price movements, in the stock, which can distort traders' views of the price trends. These types of charts also try to neutralize the skewing effect that time has on chart analysis.

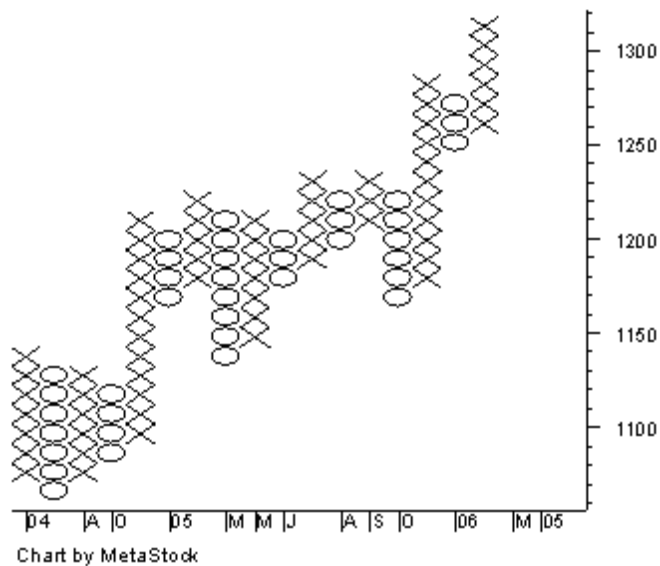


Fig 3.15 A point and figure chart

When first looking at a point and figure chart, you will notice 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; these represent months, and give investors an idea of the date. 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.

Head and shoulders is a reversal chart pattern that when formed, signals that the security is likely to move against the previous trend. As you can see in Figure, there are two versions of the head and shoulders chart pattern.

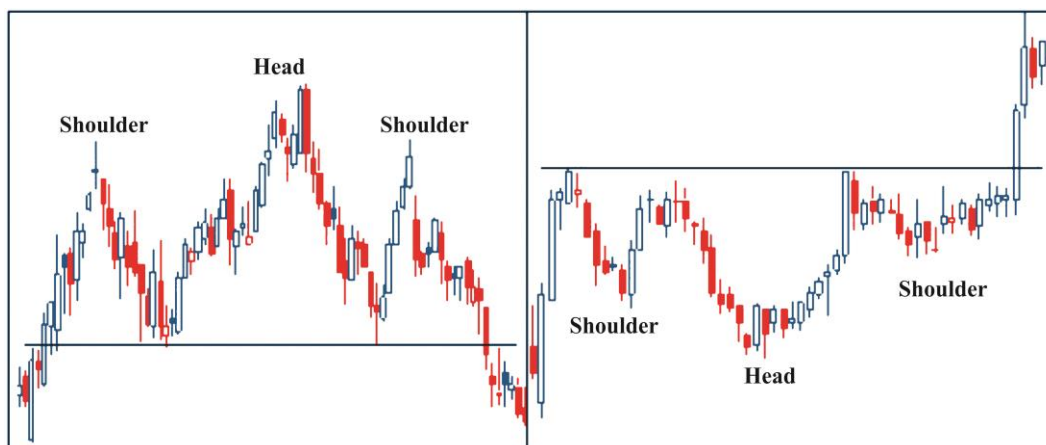


Fig 3.16 A point and figure chart

Head and shoulders top is shown on the left. Head and shoulders bottom, or inverse head and shoulders, is on the right.

Both of these head and shoulders patterns are similar in that there are four main parts: two shoulders, a head and a neckline. Also, each individual head and shoulder is comprised of a high and a low.

A cup and handle chart is a bullish continuation pattern in which the upward trend has paused but will continue in an upward direction once the pattern is confirmed.

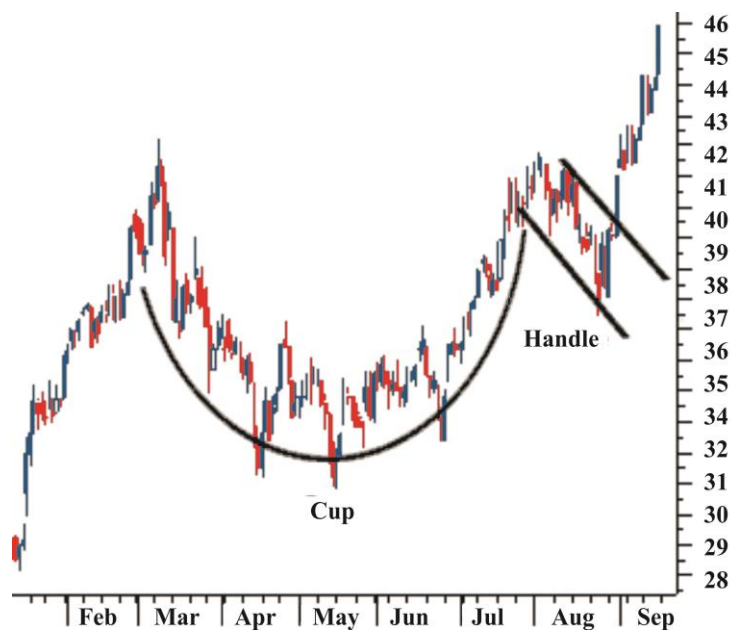


Fig 3.17 price pattern forms

As you can see in Figure, this price pattern forms what looks like a cup, which is preceded by an upward trend.

This chart pattern is another well-known pattern that signals a trend reversal - it is considered to be one of the most reliable and is commonly used.

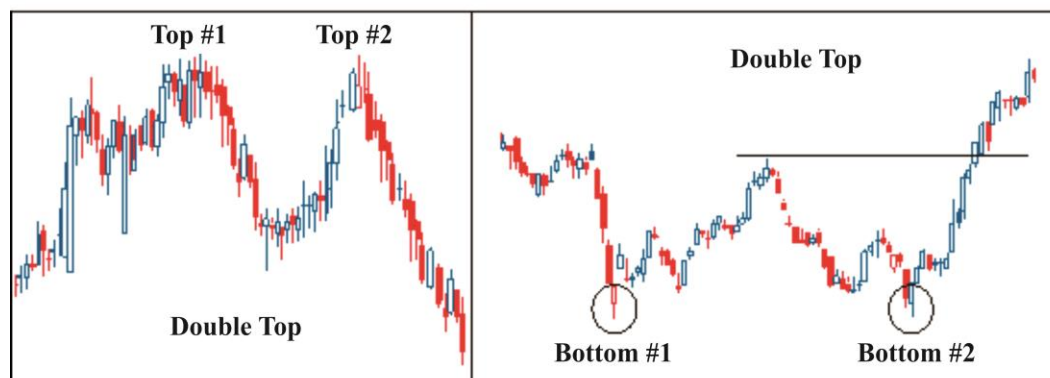


Fig 3.18 price pattern forms

A double top pattern is shown on the left, while a double bottom pattern is shown on the right.

In the case of the double top pattern in Figure 3.18, the price movement has twice tried to move above a certain price level. After two unsuccessful attempts at pushing the price higher, the trend reverses and the price heads lower.

Triangles in this are well-known chart patterns used in technical analysis. Figure shows three types of triangles which vary in construct and implication, are the symmetrical triangle, ascending and descending triangle.

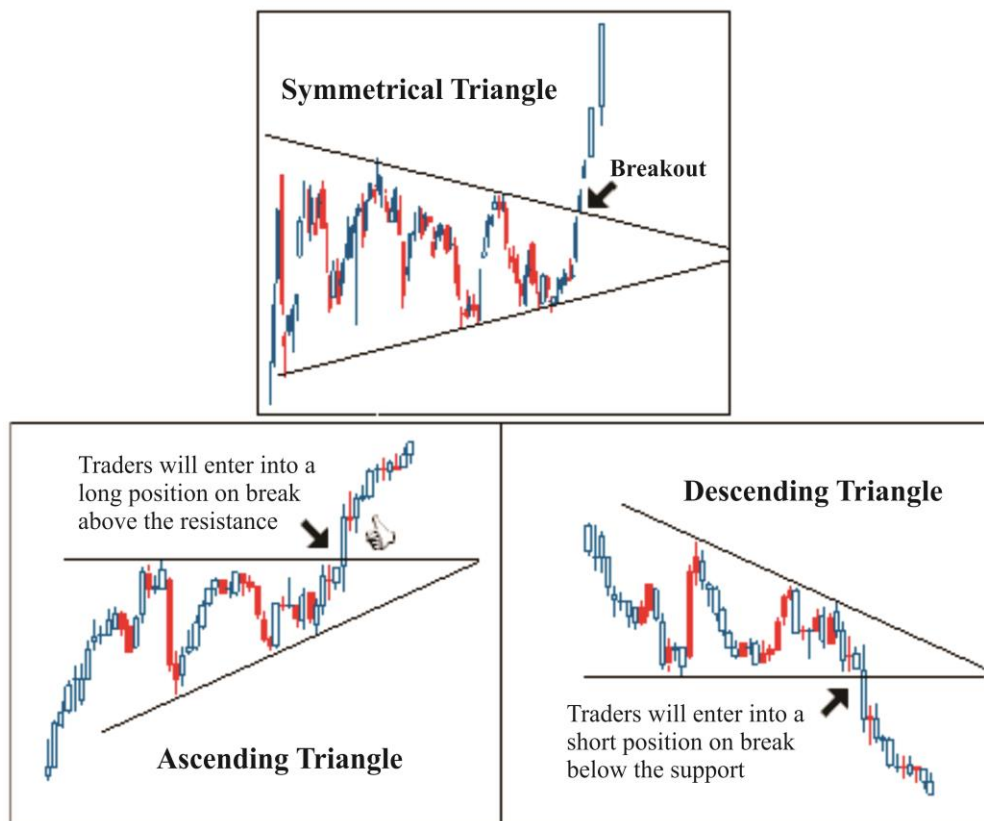


Fig 3.19 Symmetrical Triangle

In the figure, the Symmetrical triangle shown in Figure 3.19 is a pattern where two trend lines converge. Such pattern is neutral to upside or downside of trend in particular direction. In case of ascending triangle, the upper trend line is flat, while the bottom trend line is sloping in upward direction. In case of descending triangle, the lower trend line is flat and upper trend line is descending which shows bearish pattern.

The pattern shown completes upon another sharp price movement in similar direction as move trend. The patterns are generally thought to last from one to three weeks.

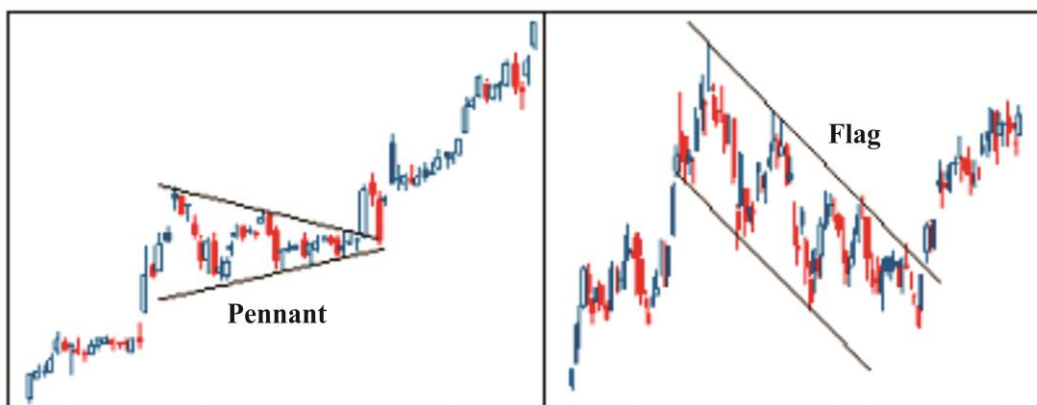


Fig 3.20 There is little difference between a pennant and a flag.

The wedge chart pattern shown in figure is continuation or reversal pattern which is same as symmetrical triangle having upward or downward direction wedge.

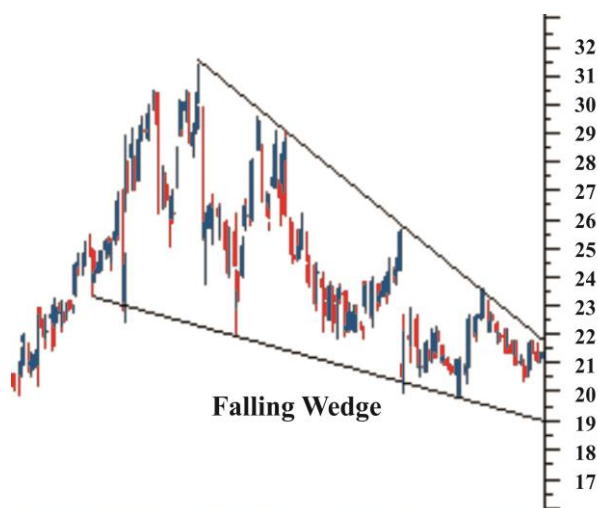


Fig 3.21 Continuation or reversal pattern

The fact that wedges are classified as both continuation and reversal patterns can make reading signals confusing. However, at the most basic level, a falling wedge is bullish and a rising wedge is bearish. In Figure 3.21, we have a falling wedge in which two trend lines are converging in a downward direction.

It is seen that gap in chart shows empty space among trading period and following trading period. It occurs when there is large difference in prices between two sequential trading periods. There are three types of gaps, breakaway, runaway (measuring) and exhaustion.

We further see that figure show triple top and triple bottoms chart which is another type of reversal chart pattern. The chart patterns are formed when the price movement tests a level of support or resistance 3 times and is unable to break through.

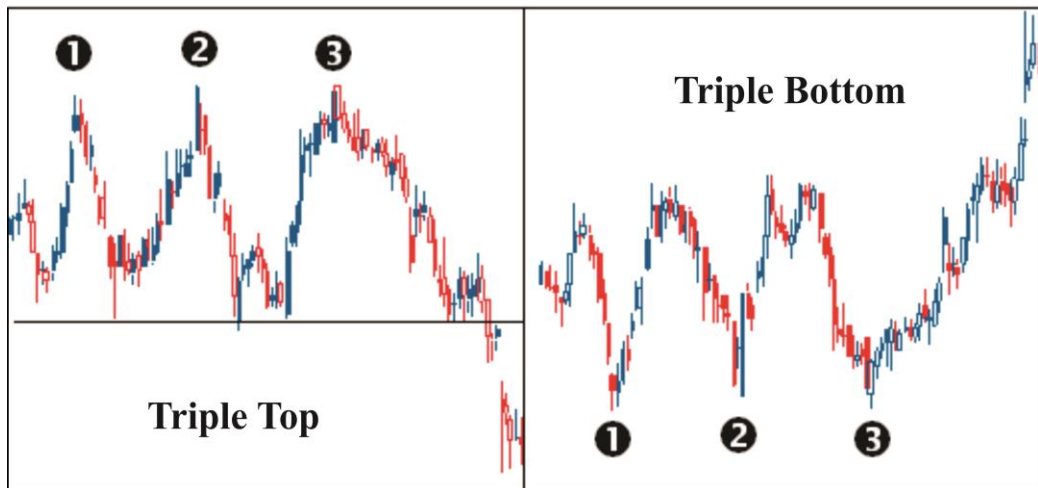


Fig. 3.22 Triple top and triple bottoms chart

A rounding bottom is another reversal pattern which indicates a shift from a downward trend to upward trend. It shows last anywhere from several months to several years.

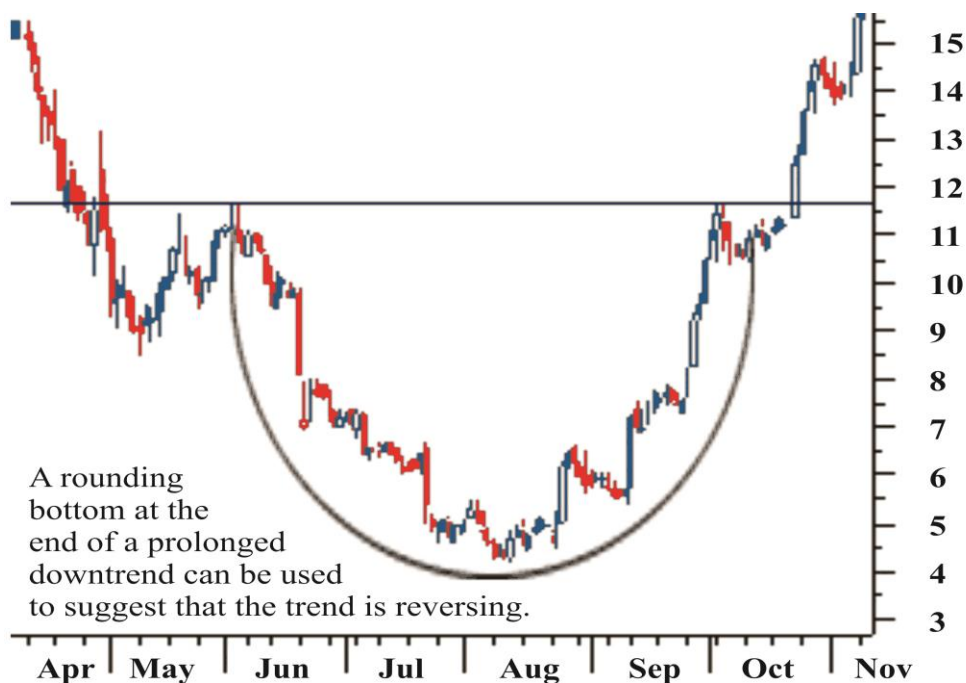


Fig. 3.23 A shift from a downward trend to upward trend

It looks like a cup that has handle pattern.

Figure, shows average less responsive to changing prices by increasing the number of periods used in the calculation. With increase in number of time periods in calculation shows strength of long-term trend and cause of reversal.

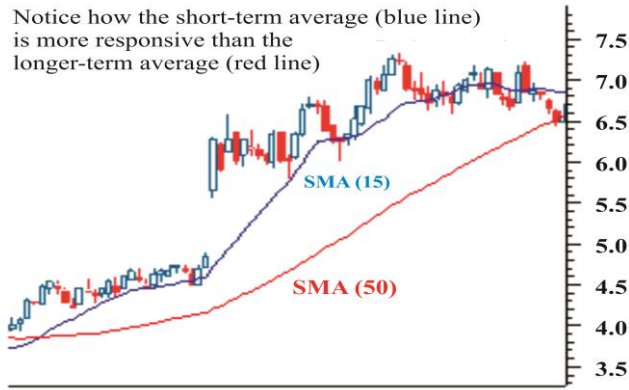


Fig 3.24 shows average less responsive

Figure 3.24 shows an arrangement of EMA rises and falls faster in 15-period SMA. This slight difference doesn't seem like much, but it is an important factor to be aware of since it can affect returns.

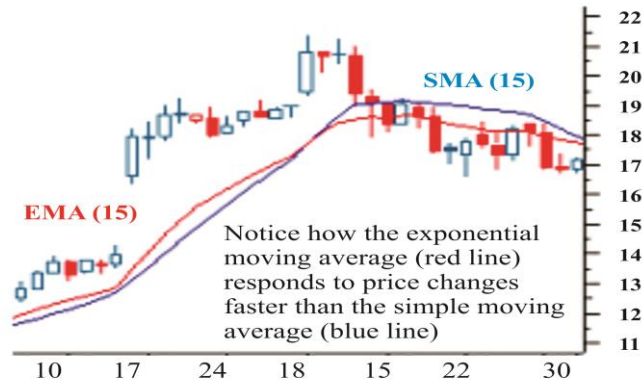


Fig 3.25 Arrangement of EMA rises and falls

As in Figure 3.25, moving average is heading upward and price is above it showing upward trend.



Fig 3.26 price is above it showing upward trend

Moving average trend reversals are formed when price moves with an average as shown in Figure 3.27 showing uptrend reversing trend.

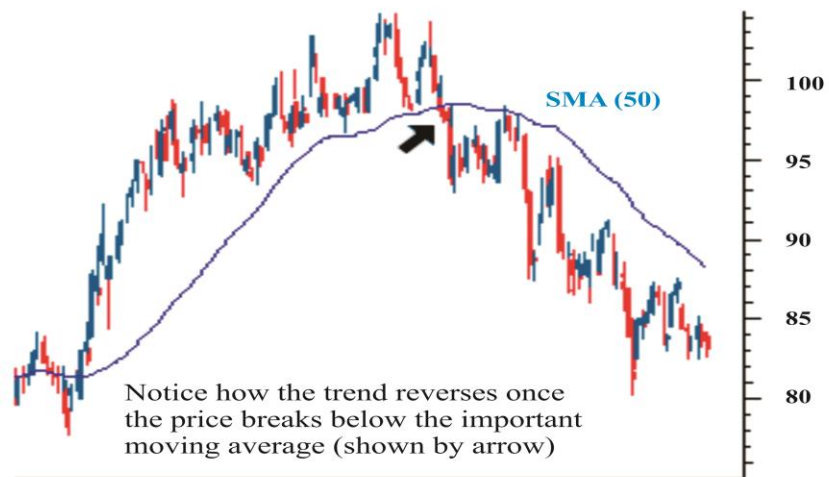


Fig 3.27 Uptrend reversing trend.

In figure 3.28, the 15-day moving average crosses above 50-day moving average; it is a positive sign that the price will start to increase.

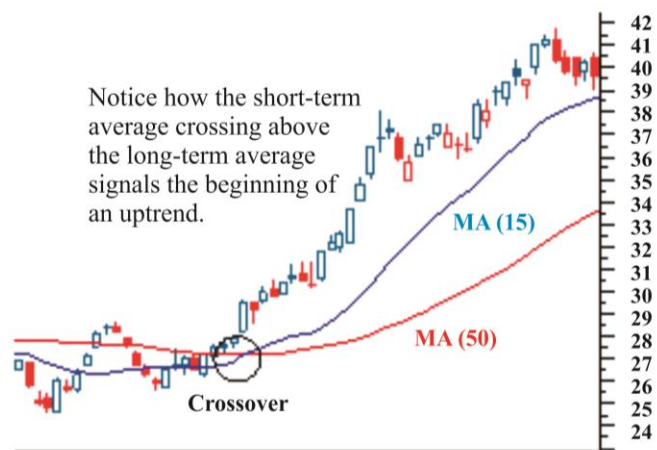


Fig 3.28 a positive sign

If the periods used in the calculation are relatively short, for example 15 and 35, this could signal a short-term trend reversal. When a price breaks through 200-day moving average in downward direction, it is signal of uptrend reversing.

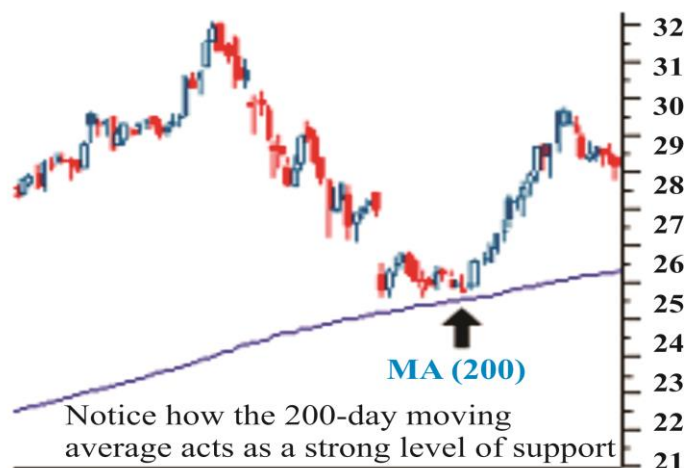


Fig 3.29 signal of uptrend reversing

Moving averages helps in analyzing trend in security as they give lots of information on support and resistance points.

Check your progress 6

1. While analysing stock, a channel can slope:

- | | |
|-------------|-------------|
| a. upward | c. sideways |
| b. downward | d. all |

3.8 Let Us Sum Up

In this unit we have learnt that Fundamental Analysis deals with the study securities concerning their macroeconomic factors and individually specific factors. The idea behind fundamental analysis is to produce a value which an investor will able to compare with security's current price in figuring out position.

The objectives behind fundamental analysis is to conduct company stock valuation, predicting price evolution, making projection on business performance, evaluating management, making internal business decisions. It is found that quantitative fundamentals are numeric, measurable characteristics about a business which is easy to see biggest source of quantitative data to measure revenue, profit, assets and more.

It is found that charts are most fundamental aspects of technical analysis which understands information about how charts are framed. Even if you are an expert who spends 24 hours a day keeping an eye on all the fundamental

developments that can influence the market, the reliability of your forecasts will still be relative. Fundamental analysis will probably work most of the time, but there will hardly ever be the possibility of predicting when it's going to fail. As a result, it is most effective when used over a longer time frame, allowing it to provide a more balanced picture of a company.

3.9 Answer for Check Your Progress

Check your progress 1

Answers: (1-a), (2-b)

Check your progress 2

Answers: (1-b)

Check your progress 3

Answers: (1-d)

Check your progress 4

Answers: (1-d)

Check your progress 5

Answers: (1-b)

Check your progress 6

Answers: (1-d)

3.10 Glossary

1. **Fundamental analysis** - In business, it involves analyzing income statement, financial statements etc.
2. **Investor** - It is a person who buys product or purchase securities with cash or borrows on interest.

3.11 Assignment

Explain what are the other important sections in fundamental analysis for financial filing?

3.12 Activities

Explain Valuation term with the help of fundamental analysis.

3.13 Case Study

What is difference between technical and fundamental analysis? Discuss in class.

3.14 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger. Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly and Brown – Investment Analysis and Portfolio Mgmt. – Thomson Learning, 7/e, 2004

Block Summary

In this block, you have given knowledge about business and rights of each shareholder with idea about board of directors and their role in company. The idea about primary and secondary market along with illustrations are well explained which will help you to know about basic working of stock. This block allows you to gain extra knowledge on how technical analysis of particular stock is done and what are the parameters of it. You will get the knowledge about different types of Stock exchanges across the globe with details about their activities.

After completing this block, you will be able to handle situations while working in stock market which will allow them to think about the working of particular stock strategy and how stocks in particular stock exchanges differ. The concepts of fundamental analysis of stock allow you to understand more about how stock works in secondary and primary market.

Block Assignment

Short Answer Questions

1. Write short note on Shares?
2. What is Annual General Meeting?
3. Explain the various rights of Shareholder?
4. Write the importance of Stock Exchanges?
5. Explain the idea behind Preferred Stock?

Long Answer Questions

1. Compare Primary Market with Secondary Market?
2. Detailed the features about Efficient Market Hypothesis?
3. How the fundamental analysis of stock is performed?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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“

*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



Dr. Babasaheb Ambedkar Open University
'Jyotirmay Parisar', Opp. Shri Balaji Temple, Sarkhej-Gandhinagar Highway, Chharodi,
Ahmedabad-382 481.

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PGDF-202

**BLOCK 2:
PORTFOLIO INVESTMENT
AND MUTUAL FUNDS**

**Dr. Babasaheb Ambedkar Open University
Ahmedabad**



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

Contents

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UNIT 2 THE BASIC TRADES OF TRADED STOCK OPTIONS

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UNIT 3 HEDGE FUND

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BLOCK 4: DOW THEORY AND DAY TRADING

UNIT 1 DOW THEORY

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UNIT 2 DAY TRADING

Day Trader, Characteristics of Day Trading, Techniques Use in Day Trading, Regulations and Restrictions, Jargon use in Day trading , Investing - Portfolios and Diversification, Five Investing Pitfalls to Avoid, According to Investor's Business Daily, Speculation, Type of Speculators, The Economic Benefits of Speculation, Some Side Effects



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PGDF-202

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

BLOCK 2: PORTFOLIO INVESTMENT AND MUTUAL FUNDS

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BLOCK 2: PORTFOLIO INVESTMENT AND MUTUAL FUNDS

Block Introduction

Stocks are the foundation of nearly every portfolio. Historically, they have outperformed most other investments over the long run. Mutual fund dividends are paid out of income, usually on a quarterly basis from the fund's investments. The tax on such dividends depends on whether the distributions resulted from capital gains, interest income, or dividends received by the fund.

In this block, students will get knowledge about Stocks and dividend along with knowledge related to types of bonds. The concept of risk and investment with brief idea about Portfolio investment and its risk involved are well explained. The block will detail about mutual fund with idea about NAV is systematically shown with certain illustrations. The knowledge about quality mutual fund and its working are shown in this block where student plays important role in understanding saving of fund.

After completing this block, students will be able to understand different financial terms such as stock, dividend, bonds, etc. The concepts of portfolio investment with risk involved makes the students to understand more about the type of risk involved in mutual fund investments. After studying this block, students will be able to understand correctly about how mutual fund will help in saving and what its characteristics are? The concept of working of mutual fund industry in today's time will allow student to learn which will help them to know various conditions.

Block Objective

After learning this block, you will be able to understand:

- Concept of Stock.
- About Dividend.
- The different types of Bond.
- About Risk & Investment.
- Generalisation about Portfolio Investment and Risks.
- The basic of NAV.

Portfolio
Investment
and Mutual
Funds

- The working about Mutual Fund.

Block Structure

Unit 1: Portfolio Investment and Risks

Unit 2: Mutual Funds

UNIT 1: PORTFOLIO INVESTMENT AND RISKS

Unit Structure

1.0 Learning Objectives

1.1 Introduction

1.2 Stock

1.3 Dividend

1.3.1 Forms of Payment

1.3.2 Benefit to Shareholders

1.3.3 Miscellaneous Specific Types

1.4 Bond

1.4.1 Types of Bonds

1.5 Risk and Investment

1.6 Portfolio Investment and Risks

1.7 Let Us Sum Up

1.8 Answers for Check Your Progress

1.9 Glossary

1.10 Assignment

1.11 Activities

1.12 Case Study

1.13 Further Readings

1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Stock
- Bond
- Risk & Investment
- Portfolio Investment and Risks

1.1 Introduction

A type of security that signifies ownership in a corporation and it represents a claim on part of the corporation's assets and earnings.

There are two main types of stock: common and preferred. Common stock usually entitles the owner to vote at shareholders' meetings and to receive dividends. Preferred stock generally does not have voting rights, but has a higher claim on assets and earnings than the common shares. For example, owners of preferred stock receive dividends before common shareholders and have priority in the event that a company goes bankrupt and is liquidated.

1.2 Stock

A holder of stock (a shareholder) has a claim to a part of the corporation's assets and earnings. In other words, a shareholder is an owner of a company. Ownership is determined by the number of shares a person owns relative to the number of outstanding shares. For example, if a company has 1,000 shares of stock outstanding and one person owns 100 shares, that person would own and have claim to 10% of the company's assets.

In financial markets, a share is a unit of account for various financial instruments including stocks, mutual funds, limited partnerships, and REIT's. In British English, use of the word shares in the plural to refer to stock is so common that it almost replaces the word stock itself. And especially in American English, the plural stocks is widely used instead of shares, in other words to refer to the stock (or perhaps originally stock certificates) of even a single company. Traditionalist demands that the plural stocks be used to refer only to stock of more than one company are rarely heard nowadays.

The income received from shares is called a dividend, and a person who owns shares is called a shareholder.

A share is one of a finite number of equal portions in the capital of a company, entitling the owner to a proportion of distributed, non-reinvested profits known as dividends and to a portion of the value of the company in case of liquidation.

Check your progress 1

1. If a person owns 100 shares out of total of 10000 shares, then what percent of shares are there with the person?
 - a. 10%
 - b. 1%

1.3 Dividend

The word "dividend" ultimately comes from the Latin word "dividend" meaning "the thing which is to be divided".

In the United States, credit unions generally use the term "dividends" to refer to interest payments they make to depositors. These are not dividends in the normal sense and are not taxed as such; they are just interest payments. Credit unions call them dividends since, as credit unions are owned by their members, interest payments are effectively payments to owners.

Consumer co-operative societies use the term "dividend" for profit-sharing payments to their members. Unlike joint stock company dividends, these payments are made in proportion to a members' spending with the co-operative society, not the number of shares they hold in it.

Distribution of earnings to shareholders prorated by class of security and paid in the form of money, stock, scrip, or, rarely, company products or property. The amount is decided by the board of directors and is usually paid quarterly. Dividends must be declared as income in the year they are received. According to the Jobs and Growth Tax Relief Reconciliation Act of 2003, dividends are taxed at either the 5% or 15% tax rate, depending on the taxpayer's tax bracket.

Individual share of earnings distributed among stockholders of a corporation or company in proportion to their holdings. Usually paid in cash, dividends may also be distributed in the form of additional shares of stock. Preferred stockholders receive a preferential dividend, usually at a fixed rate; common stockholders get a portion of what remains after payment of the dividends on preferred stock.

That part of the net earnings of a corporation that is distributed to its stockholders. Dividend disbursements are based on a percentage of the par value of the stock or are a certain sum per share of no-par-value stock. They become payable only when approved by the board of directors and are usually declared at

regular intervals. Obviously, dividends should not be paid unless the company has accumulated a profit or surplus. In the United States, dividends may be paid in property of various kinds, including bonds and stocks of the company or stocks of other companies first acquired for other purposes, in notes, or in cash. Dividends may be paid in stocks when the accumulated profits of a company are to be retained for reinvestment in the business.

Dividends in the form of notes, often called scrip dividends, are rare; they are only paid when the company has earnings that it expects to convert into cash before the notes are due. In Great Britain, dividends are payable only in cash. Liquidation dividends are the return of the capital of a business that is being terminated. Enterprises with diminishing assets, such as mines, issue a modified form of liquidation dividend. The dividend from preferred shares of stock is a fixed percentage that must be paid before the remainder of the profit is divided among other shares. If there are not enough profits to pay the whole dividend on preferred stock, future profits may be assigned to pay back those dividends before anything is paid on common stock.

Preferred stock is ranked as first and second preferred, according to the priority of its obligations. Preferred dividends differ from interest on bonds in that there is no default if the former are not paid. The term dividend is also used to refer to a fractional payment of the amount owed by a bankrupt firm to a creditor. This article is about corporate dividends. For cooperative dividends,

Dividends are payments made by a company to its shareholders. When a company earns a profit, that money can be put to two uses: it can either be reinvested in the business (called retained earnings), or it can be paid to the shareholders of the company as a dividend.

Dividends are usually settled on a cash basis, as a payment from the company to the customer. They can also take the form of shares in the company (either newly-created shares or existing shares bought in the market), and many companies offer dividend reinvestment plans, which automatically use the cash dividend to purchase additional shares for the shareholder.

Overview

The profits of a company can either be reinvested in the business or paid to its shareholders as a dividend. The frequency of these varies by country. In the United States, dividends of publicly-traded companies are usually declared quarterly by the board of directors. In some other countries dividends are paid biannually, as an interim dividend shortly after the company announces its interim

results and a final dividend typically following its annual general meeting. In other countries, the board of directors will propose the payment of a dividend to shareholders at the annual meeting who will then vote on the proposal.

In the United States, a decision regarding the amount and frequency of dividends is solely at the discretion of the board of directors (see Investing 101 and, for example, GM's "Investor Information". Shareholders are explicitly forbidden from introducing shareholder resolutions involving specific amounts of dividends (SEC Form 8-A)

Where a company makes a loss during a year, it may opt to continue paying dividends from the retained earnings from previous years or to suspend the dividend. Where a company receives a non-recurring gain, e.g. from the sale of some assets, and has no plans to reinvest the proceeds the money is often returned to shareholders in the form of a special dividend. This type of dividend is often larger than usual and occurs outside of the normal dividend distribution schedule.

1.3.1 Forms of Payment

Cash

Cash dividends (most common) are those paid out in form of cheques. Such dividends are a form of investment income and are usually taxable to the recipient in the year they are paid.

Stock

Stock or scrip dividends are those paid out in form of additional stock shares of the issuing corporation, or other corporation.

Property

Property dividends or dividends in specie (Latin for "in kind") are those paid out in form of assets from the issuing corporation or another corporation, such as a subsidiary corporation.

Other

Dividends can be used in structured finance. Financial assets with a known market value can be distributed as dividends; warrants are sometimes distributed in this way.

Dates

Dividends must be "declared" (approved) by a company's Board of Directors each time they are paid. There are four important dates to remember regarding dividends.

Declaration date

The declaration date is the day the Board of Directors announces its intention to pay a dividend. On this day, a liability is created and the company records that liability on its books; it now owes the money to the stockholders.

Ex-dividend date

The ex-dividend date is the day after which all shares bought and sold no longer come attached with the right to be paid the most recently declared dividend. This is an important date for any company that has many stockholders, including those that trade on exchanges, as it makes reconciliation of who is to be paid the dividend easier.

Record date

Shareholders who properly registered their ownership on or before the date of record will receive the dividend. Shareholders who are not registered as of this date will not receive the dividend.

Payment date

The payment date is the day when the dividend cheques will actually be mailed to the shareholders of a company or credited to brokerage accounts.

Dividend-reinvestment plans

Some companies have dividend reinvestment plans, or DRIPs. It allows shareholders to use dividends to buy small amounts of stock.

1.3.2 Benefit to Shareholders

- Shareholders have their own personal cash needs and self-select the companies whose dividends satisfy these.
- Preferred shareholders like common share dividends because it creates a cushion that must be cut before their own dividends are.
- Shareholders feel that the risk of returns from reinvested earnings at a later date is higher than the risk of cash received today.

- Benjamin Graham and David Dodd, in the 1934 book *Security Analysis*, suggest that retaining earnings is, in effect, management dictating to owners how to invest their money. However, Graham's protégé Warren Buffett prefers retained earnings to dividends because of the less punitive tax regime that they are subject to.

Cons

- Management and the board may believe that the money is best re-invested into the company: research and development, capital investment, expansion, etc.
- When dividends are paid, individual shareholders in many countries suffer from double taxation of those dividends: the company pays income tax to the government when it earns any income, and then when the dividend is paid, the individual shareholder pays income tax on the dividend payment; in many countries, the tax rate on dividend income is lower than for other forms of income to compensate for tax paid at the corporate level.
- Shareholders in companies which pay little or no cash dividends can reap the benefit of the company's profits when they sell their shareholding, or when a company is wound down and all assets liquidated and distributed amongst shareholders.

1.3.3 Miscellaneous Specific Types

Franking Credits

In Australia and New Zealand, companies also forward franking credits to shareholders along with dividends. These franking credits represent the tax paid by the company upon its pre-tax profits. One dollar of company tax paid generates one franking credit. Companies can forward any proportion of franking up to a maximum amount that is calculated from the prevailing company tax rate: for each dollar of dividend paid, the maximum level of franking is the company tax rate divided by $(1 - \text{company tax rate})$.

Dividends from Trusts

In real estate investment trusts and royalty trusts, the distributions paid often will be consistently greater than the company earnings. This can be sustainable because the accounting earnings do not recognize any increasing value of real estate holdings and resource reserves.

Reliability of Dividends

Dividend cover is calculated by dividing the company's earnings per share by the dividend. A dividend cover of less than 1 means the company is paying out more in dividends for the year than it earned.

Check your progress 2

1. _____ are payments made by a company to its shareholders
 - a. Dividends
 - b. Equity
 - c. Commodity
 - d. None of above
2. The _____ is the day the Board of Directors announces its intention to pay a dividend
 - a. declaration date
 - b. ex-dividend date
 - c. record date
 - d. payment date

1.4 Bond

Stockholders have a Convertible bond, however, may be swapped for common stock. Most convertibles are Debentures or unsecured promises to pay.

Bonds, even though they pay only a fixed rate of interest, and thus are vulnerable to a decline in price when interest rates are rising, are popular with financial institutions for a number of reasons. They allow the issuer to raise additional capital without selling stock, through the financial technique known as Leverage issuers, by selling bonds secured by loans, are able to liquefy the balance sheet, by converting balance sheet assets (residential mortgages, leases, credit card receivables) into marketable securities. Banks, individual investors, and insurance companies are major buyers of bonds.

Typically, Bonds Are Classified By Several Different Categories:

Collateral Backing - fully unsecured promise to pay a Debenture or bonds secured by mortgages or claims to specific assets, for example, Asset-Backed Securities.

Maturity - single maturity term bond or Serial Bond having several maturities.

Method of transfer - book entry registered on the books of a central depository; Bearer Bond payable to the holder or Registered Bond.

Price - Discount bond, sold at an Original Issue Discount from face value or premium bond, sold Above Par.

Bond

A certificate that serves as evidence of a debt and terms under which it is undertaken. See completion bond, performance bond, promissory note.

Example: Abel lends \$100,000 to Baker, who gives a note or bond to evidence the debt.

Business and Economics

In finance, loan contract issued by local, state, and national governments and by private corporations, specifying an obligation to return borrowed funds. The issuer promises to pay interest on the debt when due (usually semi-annually) at a stipulated percentage of the face value and to redeem the face value of the bond at maturity in legal tender. Bonds usually indicate a debt of substantial size and are issued in more formal fashion than promissory notes, ordinarily under seal. Government bonds may be backed by taxes, or they may be revenue bonds, backed only by revenue from the specific project (toll roads, airports, etc.) to which they are committed. Bonds are rated based on the issuer's creditworthiness. The ratings, assigned by independent rating agencies, generally run from AAA to D; bonds with ratings from AAA to BBB are regarded as suitable for investment. See also junk bond.

Law

In law, a formal written agreement by which a person undertakes to perform a certain act (example: appearing in court or fulfilling the obligations of a contract). Failure to perform the act obligates the person to pay a sum of money or to forfeit money on deposit. A bond is an incentive to fulfil an obligation; it also provides reassurance that compensation is available if the duty is not fulfilled. A surety usually is involved, and the bond makes the surety responsible for the consequences of the obligated person's behaviour.

In finance, usually a formal certificate of indebtedness issued in writing by governments or business corporations in return for loans. It bears interest and promises to pay a certain sum of money to the holder after a definite period, usually 10 to 20 years. Security is usually pledged against a bond; unsecured bonds are regarded as a long-term obligation on the capital of the issuing body. Some bonds are convertible upon maturity into the stock of the issuing company. One method used to retire bonds is the sinking fund; in such a case the issuing body buys back some of its bonds each year and holds them itself, applying the

interest to the fund. The entire bond issue, most of which the firm has already acquired, is then retired on maturity. In the case of serial bonds, part of the issue is called in and paid for in full each year. Bonds were sold by the U.S. government to finance both World Wars and are still an important money-raising device. Government bonds are backed by the full faith and credit of the government issuing them, including its taxing power, and sometimes also by specifically designated security. Bonds are usually bought by those wishing conservative investment. A junk bond has a risky credit rating because it is issued by companies without an established earnings history or with a questionable credit history. Junk bonds have increasingly been used to help finance the purchase of companies, especially in leveraged buyouts.

A security issued by a corporation or public body and usually carrying a fixed rate of interest and a set date, called the bond's maturity, for redemption of the principal. Like a stock, a bond is a type of investment, but unlike a stock, a bond has a definite, but not necessarily fixed, yield. Some bonds have a feature known as a call, which gives the borrower an option to pay off the principal of the bond before its maturity, the date when the bond is due to, be redeemed.

In Brief: Anything that binds or ties. Or a certificate that promises payment of a sum of money.

1.4.1 Types of Bonds

Bond

A debt investment in which an investor loans money to an entity (corporate or governmental) that borrows the funds for a defined period of time at a fixed interest rate. Bonds are used by companies, municipalities, states and U.S. and foreign governments to finance a variety of projects and activities.

Bonds are commonly referred to as fixed-income securities and are one of the three main asset classes, along with stocks and cash equivalents..

The indebted entity (issuer) issues a bond that states the interest rate (coupon) that will be paid and when the loaned funds (bond principal) are to be returned (maturity date). Interest on bonds is usually paid every six months (semi-annually). The main categories of bonds are corporate bonds, municipal bonds, and U.S. Treasury bonds, notes and bills, which are collectively referred to as simply "Treasuries".

Two features of a bond - credit quality and duration - are the principal determinants of a bond's interest rate. Bond maturities range from a 90-day Treasury bill to a 30-year government bond. Corporate and municipals are typically in the three to 10-year range.

Bond Rating

It is a grade which is given to the bonds that indicates their credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these evaluations of a bond issuer's financial strength, or it's the ability to pay a bond's principal and interest in a timely fashion.

Bond ratings are expressed as letters ranging from 'AAA', which is the highest grade, to 'C' ("junk"), which is the lowest grade. Different rating services use the same letter grades, but use various combinations of upper- and lower-case letters to differentiate themselves.

To illustrate the bond ratings and their meaning, we'll use the Standard & Poor's format:

AAA and AA: High credit-quality investment grade

AA and BBB: Medium credit-quality investment grade

BB, B, CCC, CC, C: Low credit-quality (non-investment grade), or "junk bonds"

D: Bonds in default for non-payment of principal and/or interest

Bond Swap

It is a strategy in which an investor sells a bond and at the same time purchases a different bond with the proceeds from the sale.

There are several reasons why people use a bond swap: to seek tax benefits, to change investment objectives, to upgrade a portfolio's credit quality or to speculate on the performance of a particular bond.

Discount Bond

It is a bond which is issued for less than its par (or face) value, or a bond currently trading for less than its par value in the secondary market. The "discount" in a discount bond doesn't necessarily mean that investors get a better yield than the market is offering, just a price below par. Depending on the length of time until maturity, zero-coupon bonds can be issued at very large discounts to par, sometimes 50% or more.

Because a bond will always pay its full face value at maturity (assuming no credit events occur), discount bonds issued below par - such as zero-coupon bonds

- will steadily rise in price as the maturity date approaches. These bonds will only make one payment to the holder (par value at maturity) as opposed to periodic interest payments.

A distressed bond (one that has a high likelihood of default) can also trade for huge discounts to par, effectively raising its yield to very attractive levels. The consensus, however, is that these bonds will not receive full or timely interest payments at all; because of this, investors who buy into these issues become very speculative, possibly even making a play for the company's assets or equity.

Premium Bond

It is a bond which is priced higher than its par value.

If a bond's price is higher than its par value it is selling at a premium; this occurs because the interest rate on the bond is higher than the prevailing rates in the market, making the premium bond worth more than a bond paying a lower rate. For example, if a bond with a 5% coupon were selling at par (\$1000 let's say), it would be worth less than the bond paying 7%. Therefore the bond paying 7% would have to be priced higher than par, thus equalizing the attractiveness of the two bonds.

Convertible Bond

It is a bond which can be converted into a predetermined amount of the company's equity at certain times during its life, usually at the discretion of the bondholder.

Convertibles are sometimes called "CVs".

Issuing convertible bonds is one way for a company to minimize negative investor interpretation of its corporate actions. For example, if an already public company chooses to issue stock, the market usually interprets this as a sign that the company's share price is somewhat overvalued. To avoid this negative impression, the company may choose to issue convertible bonds, which bondholders will likely convert to equity anyway should the company continue to do well.

From the investor's perspective, a convertible bond has a value-added component built into it; it is essentially a bond with a stock option hidden inside. Thus, it tends to offer a lower rate of return in exchange for the value of the option to trade the bond into stock.

Corporate Bond

A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

Corporate bonds are considered higher risk than government bonds. As a result, interest rates are almost always higher, even for top-flight credit quality companies.

Corporate bonds are issued in blocks of \$1,000 in par value, and almost all have a standard coupon payment structure. Corporate bonds may also have call provisions to allow for early prepayment if prevailing rates change.

Corporate bonds, i.e. debt financing, are a major source of capital for many businesses along with equity and bank loans/lines of credit. Generally speaking, a company needs to have some consistent earnings potential to be able to offer debt securities to the public at a favourable coupon rate. The higher a company's perceived credit quality, the easier it becomes to issue debt at low rates and issue higher amounts of debt.

Most corporate bonds are taxable with terms of more than one year. Corporate debt that matures in less than one year is typically called "commercial paper".

The most well-known risk in the bond market is interest rate risk - the risk that bond prices will fall as interest rates rise. By buying a bond, the bondholder has committed to receiving a fixed rate of return for a fixed period. Should the market interest rate rise from the date of the bond's purchase, the bond's price will fall accordingly. The bond will then be trading at a discount to reflect the lower return that an investor will make on the bond.

Market interest rates are a function of several factors such as the demand for, and supply of, money in the economy, the inflation rate, the stage that the business cycle is in as well as the government's monetary and fiscal policies. However, interest rate risk is not the only risk of investing in bonds; fixed-income investments pose four additional types of risk for investors.

Check your progress 3

1. Bonds are commonly referred to as:
 - a. fixed income securities
 - b. fixed debit security
 - c. both a and b
 - d. neither a nor b

2. _____ bond is that which gets converted into predetermined amount of company's equity during certain time.
 - a. premium
 - b. convertible
 - c. corporate
 - d. none of above

1.5 Risk and Investment

Reinvestment Risk

The risk that the proceeds from a bond will be reinvested at a lower rate than the bond originally provided. For example, imagine that an investor bought a \$1,000 bond that had an annual coupon of 12%. Each year the investor receives \$120 ($12\% \times \$1,000$), which can be reinvested back into another bond. But imagine that over time the market rate falls to 1%. Suddenly, that \$120 received from the bond can only be reinvested at 1%, instead of the 12% rate of the original bond.

Call Risk

It is the risk that a bond will be called by its issuer. Callable bonds have call provisions, which allow the bond issuer to purchase the bond back from the bondholders and retire the issue. This is usually done when interest rates have fallen substantially since the issue date. Call provisions allow the issuer to retire the old, high-rate bonds and sell low-rate bonds in a bid to lower debt costs.

Default Risk

It is the risk that the bond's issuer will be unable to pay the contractual interest or principal on the bond in a timely manner, or at all. Credit ratings services such as Moody's, Standard & Poor's and Fitch give credit ratings to bond issues, which helps to give investors an idea of how likely it is that a payment default will occur. For example, most federal governments have very high credit ratings (AAA); they can raise taxes or print money to pay debts, making default unlikely. However, small, emerging companies have some of the worst credit (BB

and lower). They are much more likely to default on their bond payments, in which case bondholders will likely lose all or most of their investment.

Inflation Risk

The risk that the rate of price increases in the economy deteriorates the returns associated with the bond. This has the greatest effect on fixed bonds, which have a set interest rate from inception. For example, if an investor purchases a 5% fixed bond and then inflation rises to 10% a year, the bondholder will lose money on the investment because the purchasing power of the proceeds has been greatly diminished. The interest rates of floating-rate bonds (floaters) are adjusted periodically to match inflation rates, limiting investors' exposure to inflation risk.

Check your progress 4

1. In dimension of default risk, municipal bonds are considered as
 - a. default risk free
 - b. not default risk free
 - c. not indexed
 - d. must be indexed

1.6 Portfolio Investment and Risks

Because their markets are in transition and hence not stable, emerging markets offer an opportunity to investors who are looking to add some risk to their portfolios. The possibility for some economies to fall back into a not-completely-resolved civil war or a revolution sparking a change in government could result in a return to nationalization, expropriation, and the collapse of the capital market. Delicate exchange rate fluctuations could transform into an all-out devaluation resulting merely from investors speculating in the possibility of political disorder or losing faith in the banking system. Because the risk of an EME investment is higher than one of a developed market, panic, speculation and knee-jerk reactions are also more common - the 1997 Asian crisis, during which international portfolio flows into these countries actually began to reverse themselves, is a good example of how EMEs can be high-risk investment opportunities.

However, the bigger the risk, the bigger the reward, so emerging market investments have become a standard practice among investors aiming to diversify while adding risk.

Local Politics vs. Global Economy

An emerging market economy must have to weigh local political and social factors as it attempts to open up its economy to the world. The people of an emerging market, who before were protected from the outside world, can often be distrustful of foreign investment. Emerging economies may also often have to deal with issues of national pride because citizens may be opposed to having foreigners owning parts of the local economy.

Moreover, opening up an emerging economy means that it will also be exposed to not only new work ethics and standards but also cultures as well: indeed the introduction and impact of, say, fast food and music videos to some local markets has been a by-product of foreign investment. Over the generations, this can change the very fabric of a society and if a population is not fully trusting of change, it may fight back hard to stop it.

Knowing how to work with the numbers in a company's financial statements is an essential skill for stock investors. The meaningful interpretation and analysis of balance sheets, income statements and cash flow statements to discern a company's investment qualities is the basis for smart investment choices. However, the diversity of financial reporting requires that we first become familiar with certain general financial statement characteristics before focusing on individual corporate financials. In this article, we'll show you what the financial statements have to offer and how to use them to your advantage.

Financial Statements are Scorecards

There are millions of individual investors worldwide, and while a large percentage of these investors have chosen mutual funds as the vehicle of choice for their investing activities, a very large percentage of individual investors are also investing directly in stocks. Prudent investing practices dictate that we seek out quality companies with strong balance sheets, solid earnings and positive cash flows.

Whether you're a do-it-yourself or rely on guidance from an investment professional, learning certain fundamental financial statement analysis skills can be very useful - it's certainly not just for the experts. Over thirty years ago, businessman Robert Follet wrote a wonderful little book entitled "How to Keep Score in Business" (1987). His principal point was that in business you keep score with dollars, and the scorecard is a financial statement. He recognized that "a lot of people don't understand keeping score in business. They get mixed up about profits, assets, cash flow and return on investment."

The same thing could be said today about a large portion of the investing public, especially when it comes to identifying investment values in financial statements. But don't let this intimidate you; it can be done. As Michael C. Thomsett says in "Mastering Fundamental Analysis" (1998):

"That there is no secret is the biggest secret of Wall Street - and of any specialized industry. Very little in the financial world is so complex that you cannot grasp it. The fundamentals - as their name implies - are basic and relatively uncomplicated. The only factor complicating financial information is jargon, overly complex statistical analysis and complex formulas that don't convey information any better than straight talk.")

What follows is a brief discussion of twelve common financial statement characteristics to keep in mind before you start your analytical journey.

Check your progress 5

1. The most favourable portfolio is the proficient portfolio with the
 - a. lowest risk
 - b. highest risk
 - c. highest utility
 - d. least investment

1.7 Let Us Sum Up

In this unit we have learnt that stock is a type of security which shows ownership in corporation and shows claim on part of corporation's assets and earnings.

It is noted that a share is a finite number of equal portions in capital of a company which entitles owner for proportionate distribution, dividends and portion of value of company in liquidation.

It is noted that distribution of earnings to shareholders prorated by class of security which is paid in shape of money, stock, scrip, or company products or property. Such amount will be decided by board of directors that is paid quarterly.

It is seen that dividends are declared as income in year which are received as per Growth Tax Relief Reconciliation Act of 2003 which are taxed at 5% or 15% rate as per taxpayer's tax bracket.

The payment can be of form cash, stock, property, dividends and bonds. There are many types of bonds like discount bond, bond swap, convertible bond, corporate bond, etc.

It is found that risk is proceeds from a bond that will be reinvested at lower rate as compared to bond originally provided. There are many types of risk like call risk, default risk, inflation risk and portfolio investment risk.

1.8 Answers for Check Your Progress

Check your progress 1

Answers: (1-b)

Check your progress 2

Answers: (1-a), (2-a)

Check your progress 3

Answers: (1-a), (2-b)

Check your progress 4

Answers: (1-b)

Check your progress 5

Answers: (1-c)

1.9 Glossary

1. **Asset** - This is anything having value owned by an individual, institution or business.
2. **Bond** - It is a type of debt security issued by corporations, government agencies, municipalities and states for issuer to pay bondholder principal amount at maturity.
3. **Capital Gain** - It is the difference between an asset's purchase price and its sale price, when the difference is positive.

4. **Closed-Ended** - An investment company which manages mutual fund offering fixed number of shares for sale.
5. **Current Assets** - Assets which are altered to cash within a relatively short period of time, usually 12 months.

1.10 Assignment

What are the benefits to shareholders from dividend?

1.11 Activities

Explain miscellaneous types of dividend.

1.12 Case Study

Study the share market and prepare a report.

1.13 Further Readings

1. Investment Analysis & Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis & Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly & Brown – Investment Analysis & Portfolio Mgmt. – Thomson Learning, 7/e, 2004.

UNIT 2: MUTUAL FUNDS

Unit Structure

2.0 Learning Objectives

2.1 Introduction

2.2 Mutual Fund

2.2.1 Advantages of Mutual Fund

2.2.2 Disadvantages of Mutual Fund

2.3 What is a Mutual Fund's NAV?

2.4 Choosing Quality Mutual Funds

2.4.1 Overview of the Mutual Fund Industry

2.4.2 History of the Mutual Fund

2.5 How a Mutual Fund Works

2.6 Today's Mutual Fund Industry

2.7 Let Us Sum Up

2.8 Answers for Check Your Progress

2.9 Glossary

2.10 Assignment

2.11 Activities

2.12 Case Study

2.13 Further Readings

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Mutual Fund
- Quality Mutual Funds
- Mutual Fund Industry

2.1 Introduction

An investment vehicle that is made up of a pool of funds collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. Mutual funds are operated by money managers, who invest the fund's capital and attempt to produce capital gains and income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

2.2 Mutual Fund

A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

One of the main advantages of mutual funds is that they give small investors access to professionally managed, diversified portfolios of equities, bonds and other securities, which would be quite difficult (if not impossible) to create with a small amount of capital. Each shareholder participates proportionally in the gain or loss of the fund. Mutual fund units, or shares, are issued and can typically be purchased or redeemed as needed at the fund's current net asset value (NAV) per share, which is sometimes expressed as NAVPS.

2.2.1 Advantages of Mutual Funds

Since their creation, mutual funds have been a popular investment vehicle for investors. Their simplicity along with other attributes provides great benefit to investors with limited knowledge, time, or money. To help you decide whether mutual funds are best for you and your situation, we are going to look at some reasons why you might want to consider investing in mutual funds.

1) Diversification

Diversification involves the mixing of investments within a portfolio and is used to manage risk. To achieve a truly diversified portfolio, you may have to buy stocks with different capitalizations from different industries and bonds with varying maturities from different issuers.

2) Economies of Scale

The easiest way to understand economies of scale is by thinking about volume discounts; in many stores the more of one product you buy, the cheaper that product becomes. Mutual funds are able to take advantage of their buying and selling size and thereby reduce transaction costs for investors.

3) Divisibility

Many investors don't have the exact sums of money to buy round lots of securities. One to two hundred dollars is usually not enough to buy a round lot of a stock, especially after deducting commissions. Investors can purchase mutual funds in smaller denominations, ranging from \$100 to \$1,000 minimums. Smaller denominations of mutual funds provide mutual fund investors the ability to make periodic investments through monthly purchase plans while taking advantage of dollar-cost averaging. So, rather than having to wait until you have enough money to buy higher-cost investments, you can get in right away with mutual funds. This provides an additional advantage - liquidity.

4) Liquidity

Another advantage of mutual funds is the ability to get in and out with relative ease. In general, you are able to sell your mutual funds in a short period of time without there being much difference between the sale price and the most current market value. However, it is important to watch out for any fees associated with selling, including back-end load fees. Also, unlike stocks and exchange-traded funds (ETFs), which trade any time during market hours, mutual funds transact only once per day after the fund's net asset value (NAV) is calculated.

5) Professional Management

When you buy a mutual fund, you are also choosing a professional money manager. This manager will use the money that you invest to buy and sell stocks that he or she has carefully researched. Therefore, rather than having to thoroughly research every investment before you decide to buy or sell, you have a mutual fund's money manager to handle it for you.

2.2.2 Disadvantages of Mutual Funds

Like many investments, mutual funds offer advantages and disadvantages, which are important for you to consider and understand before you decide to buy. Here we explore some of the drawbacks of mutual funds.

1) Fluctuating Returns

Mutual funds are like many other investments without a guaranteed return: there is always the possibility that the value of your mutual fund will depreciate. Unlike fixed-income products, such as bonds and Treasury bills, mutual funds experience price fluctuations along with the stocks that make up the fund. When

deciding on a particular fund to buy, you need to research the risks involved - just because a professional manager is looking after the fund, that doesn't mean the performance will be stellar.

Another important thing to know is that mutual funds are not guaranteed by the U.S. government, so in the case of dissolution, you won't get anything back. This is especially important for investors in money market funds. Unlike a bank deposit, a mutual fund will not be insured by the Federal Deposit Insurance Corporation (FDIC).

2) Diversification

Although diversification is one of the keys to successful investing, many mutual fund investors tend to over diversify. The idea of diversification is to reduce the risks associated with holding a single security; over diversification (also known as diversification) occurs when investors acquire many funds that are highly related and, as a result, don't get the risk reducing benefits of diversification.

At the other extreme, just because you own mutual funds doesn't mean you are automatically diversified. For example, a fund that invests only in a particular industry or region is still relatively risky.

3) Cash, Cash and More Cash

As you know already, mutual funds pool money from thousands of investors, so everyday investors are putting money into the fund as well as withdrawing investments. To maintain liquidity and the capacity to accommodate withdrawals, funds typically have to keep a large portion of their portfolios as cash. Having ample cash is great for liquidity, but money sitting around as cash is not working for you and thus is not very advantageous.

4) Costs

Mutual funds provide investors with professional management, but it comes at a cost. Funds will typically have a range of different fees that reduce the overall pay-out. In mutual funds, the fees are classified into two categories: shareholder fees and annual operating fees.

The shareholder fees, in the forms of loads and redemption fees are paid directly by shareholders purchasing or selling the funds. The annual fund operating fees are charged as an annual percentage - usually ranging from 1-3%. These fees are assessed to mutual fund investors regardless of the performance of

the fund. As you can imagine, in years when the fund doesn't make money, these fees only magnify losses.

5) **Misleading Advertisements**

The misleading advertisements of different funds can guide investors down the wrong path. Some funds may be incorrectly labelled as growth funds, while others are classified as small cap or income funds. The Securities and Exchange Commission (SEC) requires that funds have at least 80% of assets in the particular type of investment implied in their names. How the remaining assets are invested is up to the fund manager.

However, the different categories that qualify for the required 80% of the assets may be vague and wide-ranging. A fund can therefore manipulate prospective investors by using names that are attractive and misleading. Instead of labelling itself a small cap, a fund may be sold as a "growth fund". Or, the "Congo High-Tech Fund" could be sold with the title "International High-Tech Fund".

6) **Evaluating Funds**

Another disadvantage of mutual funds is the difficulty they pose for investors interested in researching and evaluating the different funds. Unlike stocks, mutual funds do not offer investors the opportunity to compare the P/E ratio, sales growth, earnings per share, etc. A mutual fund's net asset value gives investors the total value of the fund's portfolio less liabilities, but how do you know if one fund is better than another?

Furthermore, advertisements, rankings and ratings issued by fund companies only describe past performance. Always note that mutual fund descriptions/advertisements always include the tagline "past results are not indicative of future returns". Be sure not to pick funds only because they have performed well in the past - yesterday's big winners may be today's big losers.

Check your progress 1

1. The idea behind mutual fund:
 - a. put individuals money in money-market instruments.
 - b. to finance money for business
 - c. acquire and place mortgages
 - d. establish finance companies

2.3 What is a Mutual Fund's NAV?

Net Asset Value (NAV)

A mutual fund's price per share or exchange-traded fund's (ETF) per-share value. In both cases, the per-share dollar amount of the fund is derived by dividing the total value of all the securities in its portfolio, less any liabilities, by the number of fund shares outstanding.

In terms of corporate valuations, the value of assets less liabilities equals net asset value (NAV), or "book value".

In the context of mutual funds, NAV per share is computed once a day based on the closing market prices of the securities in the fund's portfolio. All mutual fund's buy and sell orders are processed at the NAV of the trade date. However, investors must wait until the following day to get the trade price.

Mutual funds pay out virtually all of their income and capital gains. As a result, changes in NAV are not the best gauge of mutual fund performance, which is best measured by annual total return.

Because ETFs and closed-end funds trade like stocks, their shares trade at market value, which can be a dollar value above (trading at a premium) or below (trading at a discount) NAV.

Price-Earnings Ratio (P/E Ratio)

A valuation ratio of a company's current share price compared to its per-share earnings. Calculated as:

$$= \frac{\text{Market Value per Share}}{\text{Earnings per Share (EPS)}}$$

For example, if a company is currently trading at \$43 a share and earnings over the last 12 months were \$1.95 per share, the P/E ratio for the stock would be 22.05 (\$43/\$1.95).

EPS is usually from the last four quarters (trailing P/E), but sometimes it can be taken from the estimates of earnings expected in the next four quarters (projected or forward P/E). A third variation uses the sum of the last two actual quarters and the estimates of the next two quarters.

Also sometimes known as "price multiple" or "earnings multiple".

In general, a high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E. However, the P/E ratio doesn't tell us the whole story by itself. It's usually more useful to compare

the P/E ratios of one company to other companies in the same industry, to the market in general or against the company's own historical P/E. It would not be useful for investors using the P/E ratio as a basis for their investment to compare the P/E of a technology company (high P/E) to a utility company (low P/E) as each industry has much different growth prospects.

The P/E is sometimes referred to as the "multiple", because it shows how much investors are willing to pay per dollar of earnings. If a company were currently trading at a multiple (P/E) of 20, the interpretation is that an investor is willing to pay \$20 for \$1 of current earnings.

It is important that investors note an important problem that arises with the P/E measure, and to avoid basing a decision on this measure alone. The denominator (earnings) is based on an accounting measure of earnings that is susceptible to forms of manipulation, making the quality of the P/E only as good as the quality of the underlying earnings number.

Check your progress 2

1. The price per share that you can buy a fund for is called the_____.
- | | |
|--------------------|-----------|
| a. net asset value | c. load |
| b. management fee | d. charge |

2.4 Choosing Quality Mutual Funds

The complexities of the investment process are often beyond the grasp of the general public. For many people, multiple competing interests and increasingly busy lifestyles leave little opportunity for learning the basics of investing.

2.4.1 Overview of the Mutual Fund Industry

Financial intermediaries become fund sponsors when they create and operate mutual funds. Such funds are a type of Investment Company that pools money from the investing public and collectively invests this money in stocks, bonds and money market instruments. A mutual fund provides individual investors with a convenient form of investing, professional management, broad diversification and liquidity.

The purpose of this tutorial is to show the investing public how to use a simple eight-point, fund evaluation technique to select and monitor a mutual fund. But first we are going to step back and put the mutual fund business into historical perspective, review the operational workings of a fund and look at some of the broad issues related to today's mutual fund industry.

2.4.2 History of the Mutual Fund

Historians are uncertain of the origins of investment funds. There are some indications that the idea of pooling assets for investment purposes began in the Netherlands in the late 18th or early 19th century. Closed-end investment funds did take root in Great Britain and France in the 1800s, making their way to the United States in the 1890s.

The creation of the Massachusetts Investors' Trust in Boston in 1924, which went public in 1928, is cited as the arrival of the modern mutual fund in the U.S. In 1929, there were 19 open-ended funds competing with nearly 700 of the closed-end variety. The market crash of 1929 wiped out the highly leveraged closed-end funds, but a small number of opened-ended funds managed to survive.

The creation of the Securities and Exchange Commission (SEC), the passage of the Securities Act of 1934 and the Investment Company Act of 1940 put the mutual fund business on a solid regulatory basis with safeguards for investors. In the early 1950s, the mutual fund count topped 100 and continued to grow through the next two decades. The bull markets of the 1980s and 1990s accelerated this growth, pushing the fund count over 3,000, with total assets surpassing the \$1 trillion mark during this period.

In response to the mutual fund scandals of the 2003-2004 period, corrective regulatory and industry practices were, and continue to be, enacted. By the end of 2006, the mutual fund business was still growing and mutual funds in the U. S. numbered more than 8,000 with asset holdings of \$10.4 trillion and new markets opening up around the world.)

Check your progress 3

1. Mutual fund scandals was in year:

- | | |
|---------|---------|
| a. 1998 | c. 2003 |
| b. 2000 | d. 2007 |

2.5 How a Mutual Fund Works

A fund sponsor - generally a financial intermediary like Fidelity Investments or Vanguard - organizes a mutual fund as a corporation; however, it is not an operating company with employees and a physical place of business in the traditional sense. A fund is a "virtual" company, which is typically externally managed. It relies on third parties or service providers, either fund sponsor affiliates or independent contractors, to manage the fund's portfolio and carry out other operational and administrative activities.

The fund sponsor raises money from the investing public, who become fund shareholders. It then invests the proceeds in securities (stocks, bonds and money market instruments) related to the fund's investment objective. The fund provides shareholders with professional investment management, diversification, liquidity and investing convenience. For these services, the fund sponsor charges fees and incurs expenses for operating the fund, all of which are charged proportionately against a shareholder's assets in the fund.

The most prevalent and well-known type of mutual fund operates on an open-ended basis. This means that it continually issues (sells) shares on demand to new investors and existing shareholders who are buying. It redeems (buys back) shares from shareholders who are selling.

Mutual fund shares are bought and sold on the basis of a fund's net asset value (NAV). Unlike a stock price, which changes constantly according to the forces of supply and demand, NAV is determined by the daily closing value of the underlying securities in a fund's portfolio (total net assets) on a per share basis.

In some instances, investors can purchase shares directly from the fund, but most funds are sold through an investment intermediary: a broker, investment advisor, financial planner, bank or insurance company. These intermediaries are compensated for their services through a variety of sales charge options (loads) or deferred/on-going 12b-1 fees. The former come directly out of the investor's pocket (deducted from the amount to be invested) and the latter as a proportionate deduction of the shareholder's fund assets.

IT manages the fund's portfolio according to the objectives and policies described in the fund's prospectus.

Sells fund shares, either directly to the public or through other firms (such as broker dealers).

Oversees the performance of other companies that provide services to the fund and ensures that the fund's operations comply with the applicable federal requirements.

Executes shareholder transactions, maintains records of transactions and other shareholders' account activities, and sends account statements and other documents to shareholders.

It holds the fund's assets, maintaining them separately to protect shareholder interests.

Check your progress 4

1. The mutual fund provides shareholders with:
 - a. professional investment management
 - b. diversification
 - c. liquidity
 - d. all of these

2.6 Today's Mutual Fund Industry

According to the 2005 Investment Company Institute Fact Book, nearly 600 financial intermediaries in the U.S. and around the world compete in the U.S. mutual fund market. It is estimated that, as of year-end 2004, the top 25 of these firms held 74% of this market's \$8.2 trillion total assets under management.

The 8,000 plus publicly traded mutual funds in the U. S. break down by type as follows:

- 4,550 equity.
- 2,041 bond.
- 510 hybrid.
- 943 money market.

It is a huge understatement to say that for the investing public, this number of fund choices is absolutely overwhelming.

It is important for fund investors to appreciate the importance of investing in funds that are sponsored by financial intermediaries in good standing. That is to

say, that they are not saddled with regulatory problems resulting from questionable management practices and governance problems. The serious mutual fund scandals of 2002 and 2003 are, hopefully, behind us. However, it is prudent for fund investors to maintain a watchful eye in this area.

Investors should start by screening for those fund sponsors that are scandal-free and that do a good job of aligning their interests with those of their fund shareholders. Professionals in the mutual fund industry refer to this as good stewardship. The most accessible source of stewardship grades is a Morningstar Fund Report. Morningstar's grading of fund sponsor stewardship has become an important part of its evaluative reporting on the mutual fund industry.

It is natural that opinions will differ on fund-sponsor quality. However, it is worthwhile to note that there appears to be a connection between high quality fiduciary management at the fund sponsor level and high quality investment performance at the individual fund level.

Closed-End Fund

A closed-end fund is a publicly traded investment company that raises a fixed amount of capital through an initial public offering (IPO). The fund is then structured, listed and traded like a stock on a stock exchange.

Also known as a "closed-end investment" or "closed-end mutual fund."

Despite the name similarities, a closed-end fund has little in common with a conventional mutual fund, which is technically known as an open-end fund.

The former raises a prescribed amount of capital only once through an IPO by issuing a fixed amount of shares, which are purchased by investors in the closed-end fund as stock. Unlike regular stocks, closed-end fund stock represents an interest in a specialized portfolio of securities that is actively managed by an investment advisor and which typically concentrates on a specific industry, geographic market, or sector. The stock prices of a closed-end fund fluctuate according to market forces (supply and demand) as well as the changing values of the securities in the fund's holdings.

Check your progress 5

1. A closed-end fund is a type of mutual fund where shares issued when:
 - a. fund is organized
 - b. fund is unorganized
 - c. fund is copied
 - d. funds shows random behaviour

2.7 Let Us Sum Up

In this unit we have learnt that mutual fund is an investment tool which comprises of pool of funds which is gathered from many investors for purpose of investing in securities such as stocks, bonds, money market instruments and similar assets. It is operated by investment managers, who invest the fund's capital and attempt to produce capital gains and income for fund's investors.

It is studied that the best way to understand economies of scale is by thinking about volume discounts. As in many stores, if several products you buy, then there are chances that the product becomes cheaper.

It is seen that on buying mutual funds, you are provided with immediate benefit of instant diversification and asset allocation without large amounts of cash needed to create individual portfolios. The good way to understand economies of scale is by thinking of volume discounts on more products.

Further is noted that divisibility is another concern in mutual fund market as few hundred dollars are not big to buy lot of stock in spite of paying commissions. In such case, investors purchase mutual funds in smaller denominations which provide investors with ability to make periodic investments by monthly purchase plans while taking advantage of dollar-cost averaging.

Liquidity is another advantage of mutual funds as it allows in and out with relative ease. Normally, you can sell your mutual funds in short period of time without much difference among sale price and current market value.

The drawback with mutual fund is that when you buy any investment, it's important to understand both good and bad points. If fund has an advantage as investment offers outweigh its disadvantages, then it is possible that mutual funds are something to consider.

In mutual fund, NAV is Net Asset Value which is price per share or exchange-traded fund's (ETF) per-share value. In both cases, per-share dollar amount of the fund is derived by dividing the total value of all the securities in its portfolio, less any liabilities, by the number of fund shares outstanding.

Moreover, Price-Earnings Ratio which is called as P/E Ratio is a valuation ratio of a company's current share price as compared to its per-share earnings.

2.8 Answers for Check Your Progress

Check your progress 1

Answers: (1-a)

Check your progress 2

Answers: (1-a)

Check your progress 3

Answers: (1-c)

Check your progress 4

Answers: (1-d)

Check your progress 5

Answers: (1-a)

2.9 Glossary

1. **Asset** - This is anything having value owned by an individual, institution or business.
2. **Bond** - It is a type of debt security issued by corporations, government agencies, municipalities and states for issuer to pay bondholder principal amount at maturity.
3. **Capital Gain** - It is the difference between an asset's purchase price and its sale price, when the difference is positive.

4. **Closed-Ended** - An investment company which manages mutual fund offering fixed number of shares for sale.
5. **Current Assets** - Assets which are altered to cash within a relatively short period of time, usually 12 months.

2.10 Assignment

Explain Mutual Fund. What are the advantages & disadvantages of Mutual funds?

2.11 Activities

Explain today's Mutual Fund Industry.

2.12 Case Study

How mutual funds work? Discuss in you group.

2.13 Further Readings

1. Investment Analysis & Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis & Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science –David G.Luenberger Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly & Brown – Investment Analysis & Portfolio Mgmt. – Thomson Learning, 7/e, 2004.
8. Ranganathan & Madhumathi – Investment Analysis & Portfolio Mgmt. – Pearson, PHI.

Block Summary

In this block, you will get knowledge about mutual fund NAV and its use along with certain portfolio investment techniques. The idea about certain risk and investment strategies in mutual fund is well illustrated with which students will get knowledge about saving in mutual fund. This block allows you to gain extra knowledge about various risk and investment on mutual fund. The knowledge about different types of mutual fund with their working and characteristics are well explained.

After completing this block, you will be able to know about mutual fund and various risks involves in it. The idea of NAV will help students to think and know about mutual fund values. The concepts of mutual fund industry will knowledge about different fund analysis will help to gain extra knowledge.

Block Assignment

Short Answer Questions

1. What do you mean by stock?
2. How dividend is calculated?
3. Write short note on Net Asset Value (NAV).
4. Explain the type of risk involved in mutual fund?
5. State the advantages of Mutual Funds?

Long Answer Questions

1. Define how mutual fund works?
2. Describe about Portfolio investment with examples?
3. Briefly explain about values accessed by various mutual funds as per NAV?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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“

*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



Dr. Babasaheb Ambedkar Open University
'Jyotirmay Parisar', Opp. Shri Balaji Temple, Sarkhej-Gandhinagar Highway, Chharodi,
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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PGDF-202

**BLOCK 3:
MONEY MARKET AND
HEDGE FUND**

**Dr. Babasaheb Ambedkar Open University
Ahmedabad**



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

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Dr. Babasaheb
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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

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BLOCK 3: MONEY MARKET AND HEDGE FUND

Block Introduction

Financial instruments can be thought of as easily tradable packages of capital, each having their own unique characteristics and structure. The wide array of financial instruments in today's marketplace allows for the efficient flow of capital amongst the world's investors. Derivatives can be based on different types of assets such as commodities, equities (stocks), bonds, interest rates, exchange rates, or indexes. Their performance can determine both the amount and the timing of the payoffs. Hedge funds entitle the general partner to an additional incentive management fee based upon positive returns-the higher the returns, the higher their fee.

In this block, students will get knowledge about different financial instruments used in money market along with knowledge related to Investment return and risk with explanation about risk modelling. The concept related to trades of trade stock option along with various option strategies gives with brief idea on derivatives and equity derivatives are well explained. The block will detail about hedge fund with idea about funds of hedge along with various discussions and controversies is highlighted which will make student to aware about hedge funds.

After completing this block, students will be able to understand about various hedge funds and their characteristics. The concepts about interest rate derivative and index basic along with inflation derivatives are allows students to gather more knowledge about merits and features. After studying this block, students will be able to understand correctly about how hedging is done in stocks and what steps are there to avoid risk.

Block Objective

After learning this block, you will be able to understand:

- The basic of Financial Instrument
- About Money Market
- Factors affecting Investment Risk and Return

Money
Market and
Hedge Fund

- Introduction to Risk Modeling
- Features about Trading
- Concept of Traded Stock Options
- Idea about Funded Credit Derivative Products
- Concept of Hedge Fund Risk
- Features of Hedge Fund Indices

Block Structure

Unit 1: Money Market

Unit 2: The Basic Trades of Traded Stock Options

Unit 3: Hedge Fund

UNIT 1: MONEY MARKET

Unit Structure

1.0 Learning Objectives

1.1 Introduction

1.2 Financial Instrument

1.2.1 Measuring Financial Instrument's Gain or Loss

1.3 Money Market: Introduction

1.4 Investment Risk and Return

1.4.1 Steps in the Risk Management Process

1.5 Risk Modelling

1.5.1 Operational Risk

1.5.2 Liquidity Risk

1.5.3 Valuation Models

1.6 Model Implementation

1.6.1 Analytic Techniques

1.6.2 Risks

1.6.3 Pin Risk

1.7 Let Us Sum Up

1.8 Answer for Check Your Progress

1.9 Glossary

1.10 Assignment

1.11 Activities

1.12 Case Study

1.13 Further Readings

1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Financial Instrument
- Money Market

1.1 Introduction

In this unit we study what is financial instrument? It is a term used to denote any form of funding medium - mostly those used for borrowing in money markets, e.g. bills of exchange, bonds. After that we study about money market and terms used in money market i.e. Bear, bear Market, bull, Bull market, Gold bull etc. how money invest in different type of investment what are the risk in investments and what are the return of investments.

1.2 Financial Instrument

A real or virtual document representing a legal agreement involving some sort of monetary value. In today's financial marketplace, financial instruments can be classified generally as equity based, representing ownership of the asset, or debt based, representing a loan made by an investor to the owner of the asset. Foreign exchange instruments comprise a third, unique type of instrument. Different subcategories of each instrument type exist, such as preferred share equity and common share equity, for example.

Financial instruments is a term used to denote any form of funding medium mostly those used for borrowing in money markets, e. g. bills of exchange, bonds, etc.

Categorization

Financial instruments can be categorised by form depending on whether they are cash instruments or derivative instruments:

- Cash instruments are financial instruments whose value is determined directly by markets. They can be divided into securities, which are readily transferable, and other cash instruments such as loans and deposits, where both borrower and lender have to agree on a transfer.

- Derivative instruments are financial instruments which derive their value from some other financial instrument or variable. They can be divided into exchange-traded derivatives and over-the-counter (OTC) derivatives.

Alternatively, financial instruments can be categorized by “asset class” depending on whether they are equity based (reflecting ownership of the issuing entity) or debt based (reflecting a loan the investor has made to the issuing entity). If it is debt, it can be further categorised into short term (less than one year) or long term.

Foreign Exchange instruments and transactions are neither debt nor equity based and belong in their own category.

Matrix Table

Combining the above methods for categorisation, the main instruments can be organized into a matrix as follows:

- Asset Class
- Instrument Type
- Securities
- Other cash
- Exchange-traded derivatives
- OTC derivatives
- Debt (Long Term) >1 year
- Bonds
- Loans
- Bond futures
- Options on bond futures
- Interest rate swaps
- Interest rate caps and floors
- Interest rate options
- Exotic instruments
- Debt (Short Term)
- <=1 year

- Bills, e.g. T-Bills
- Commercial paper
- Deposits
- Certificates of deposit
- Short term interest rate futures
- Forward rate agreements
- Equity
- Stock
- N/A
- Stock options
- Equity futures
- Stock options
- Exotic instruments
- Foreign Exchange
- N/A
- Spot foreign exchange
- Currency futures
- Foreign exchange options
- Outright forwards
- Foreign exchange swaps
- Currency swaps

Some instruments defy categorisation into the above matrix, for example repurchase agreements.

1.2.1 Measuring Financial Instrument's Gain or Loss

The table below shows how to measure a financial instrument's gain or loss:

- Instrument Type
- Categories

- Measurement
- Gains and losses
- Assets
- Loans and receivables
- Amortized costs

Net income when asset is derecognized or impaired (foreign exchange and impairment recognized in net income immediately)

- Available for sale financial assets
- Deposit account - Fair value

Other comprehensive income (impairment recognized in net income immediately)

Check your progress 1

1. Which among the following is not a financial instrument?

- | | |
|-------------|----------|
| a. bonds | c. stock |
| b. equities | d. bank |

1.3 Money Market: Introduction

Whenever a bear market comes along, investors realize (yet again!) that the stock market is a risky place for their savings. It's a fact we tend to forget while enjoying the returns of a bull market! Unfortunately, this is part of the risk-return trade-off. To get higher returns, you have to take on a higher level of risk. For many investors, a volatile market is too much to stomach - the money market offers an alternative to these higher-risk investments.

The money market is better known as a place for large institutions and government to manage their short-term cash needs. However, individual investors have access to the market through a variety of different securities. In this tutorial, we'll cover various types of money market securities and how they can work in your portfolio.

A) Bear Market

A market condition in which the prices of securities are falling or are expected to fall. Although figures can vary, a downturn of 15-20% or more in multiple indexes (Dow or S and P 500) is considered an entry into a bear market.

When you see a bear what do you do? Tuck in your arms and play dead! Fighting back can be extremely dangerous because it is quite difficult for an investor to make stellar gains during a bear market unless he or she is a short seller.

B) Bull Market

A financial market of a group of securities in which prices are rising or are expected to rise. The term “bull market” is most often used to refer to the stock market, but can be applied to anything that is traded, such as bonds, currencies and commodities.

Bull markets are characterized by optimism, investor confidence and expectations that strong results will continue. It's difficult to predict consistently when the trends in the market will change. Part of the difficulty is that psychological effects and speculation may sometimes play a large role in the markets.

The use of “bull” and “bear” to describe markets comes from the way the animals attack their opponents. A bull thrusts its horns up into the air while a bear swipes its paws down. These actions are metaphors for the movement of a market. If the trend is up, it's a bull market. If the trend is down, it's a bear market.

Check your progress 2

1. The word Bull and Big are used with which commercial activity?

a. Foreign Trade

c. Share Market

b. Banking

d. Production

1.4 Investment Risk and Return

A) Acceptable risk

The term “acceptable risk” describes the likelihood of an event whose probability of occurrence is small, whose consequences are so slight, or whose benefits (perceived or real) are so great, that individuals or groups in society are willing to take or be subjected to the risk that the event might occur. The concept of acceptable risk evolved partly from the realization that absolute safety is generally an unachievable goal, and that even very low exposures to certain toxic substances may confer some level of risk. The notion of virtual safety corresponding to an acceptable level of risk emerged as a risk management objective in cases where such exposures could not be completely or cost-effectively eliminated.

Two proxy measures have been used to determine acceptable risk levels. The revealed-preference approach assumes that society, through trial and error, has achieved a nearly optimal, and thus acceptable, balance of risks and benefits. The expressed-preference approach uses opinion surveys and public consultations to obtain information about risk levels warranting mitigation action.

Although regulatory authorities are reluctant to define a precise level of acceptable risk, lifetime risks in the order of one in a million have been discussed in regulatory applications of the acceptable risk concept. This level of risk is considered to be de minimize, an abbreviation of the legal concept de minimus non curatlex (the law does not concern itself with trifles). Attempts have also been made to establish benchmarks, such as the risk of being hit by lightning, to help interpret such small risks. Higher levels of risk might be tolerated in the presence of offsetting health or economic benefits, when the risk is voluntary rather than involuntary, or when the population at risk is small.

Although conceptually attractive, application of the concept of acceptable risk is fraught with difficulty, ultimately involving consideration of social values. Inequities in the distribution of risks and benefits across society further complicate the determination of an acceptable level of risk.

B) Risk Assessment

A report that shows assets, vulnerabilities, likelihood of damage, estimates of the costs of recovery, summaries of possible defensive measures and their costs and estimated probable savings from better protection. A “risk analysis” is the process of arriving at a risk assessment, which is also called a “threat and risk assessment.” A “threat” is a harmful act such as the deployment of a virus or

illegal network penetration. A “risk” is the expectation that a threat may succeed and the potential damage that can occur.

During the last two decades of the twentieth century, risk science evolved into an important academic and applied discipline. The U.S. National Research Council issued a pioneering report in 1983, titled *Risk Assessment in the Federal Government: Managing the Process*. This report represented the first formalized effort to describe the health-risk assessment and management process in a structured way. It consolidated earlier efforts at developing a comprehensive framework, and it has been widely endorsed throughout the world.

The framework consists of three components: research, risk assessment, and risk management. Research refers to the collection, analysis, and interpretation of biological, chemical, and physical data from laboratory and other scientific studies, including studies on human populations, where possible. Risk assessment is defined as the characterization of the potential adverse health effects of human exposures to environmental hazards. Risk assessment consists of four steps: hazard identification (the process of determining whether exposure to an agent can lead to adverse health outcomes), dose-response assessment (characterizing the relation between the dose of an agent administered or received and the occurrence of adverse health effects in exposed populations), exposure assessment (measuring or estimating the intensity, frequency, and duration of human exposures to an agent currently present in the environment), and risk characterization (estimating the risk of adverse health effects under specific conditions of human exposure).

At the risk-management stage, alternative regulatory options are developed and evaluated. Selection of a particular regulatory option involves consideration of the public health, economic, social, and political consequences of implementation. Other factors of significance include the technical feasibility of the proposed solution, the desired level of control, the ability to enforce regulations, uncertainty in scientific data and the corresponding inferential bridges used to fill gaps in knowledge, and the public perception and level of information. The implementation of a specific course of action should be accompanied by the communication of information concerning the basis of the decision to affected parties.

Catalysed in part by the guidance provided by the U.S. National Research Council, risk science evolved rapidly. In Canada, Health Canada developed a comprehensive framework for the assessment and management of population health risks, which served to identify the critical steps involved in health-risk

assessment and management in further detail. The Canadian Standards Association also issued a national standard for risk assessment. An important feature of this standard was its broad applicability, providing general risk-assessment guidelines for health, environmental, and engineering applications. This was followed by a similar standard focusing on principles for risk-management decision making. The Canadian Public Health Association used the Health Canada risk-determination framework to establish a benefit/risk/cost determination framework to describe and evaluate risk/benefit methodology as it is applicable to the field of prescription drug use, including the use of quality adjusted life years (QUALYs) to measure risks and benefits.

The most recent contribution to the field of health-risk assessment is the 1997 report of the U.S. Presidential/Congressional Commission on Risk Assessment and Risk Management, based on a dynamic process involving the ongoing engagement of stakeholders. The Commission's Framework for Environmental Health Risk Management is designed to help all types of risk managers—including government officials, private-sector businesses, and individual members of the public— make good risk-management decisions when dealing with any type of environmental health risk. The framework is general enough to work in a wide variety of situations, with the level and effort invested being scaled to the importance of the problem, the potential severity and economic impact of the risk, the level of controversy surrounding the risk, and resource constraints.

The framework is intended primarily for risk decisions related to setting standards, controlling pollution, protecting health, and cleaning up the environment. The framework consists of six steps: (1) define the problem and put it into context, (2) analyse the risks associated with the problem in context, (3) examine options for addressing the risks, (4) make decisions about which options to implement, (5) take actions to implement the decisions, and (6) conduct an evaluation of the results of the action. All stages of the process are implemented with the involvement of interested and affected parties.

The three key principles underpinning this framework include adopting a broad context for risk assessment (instead of evaluating single risks associated with single agents in single environmental mediums, the framework puts health and environmental problems in their larger real-world contexts); involvement of stakeholders at all phases of the process; and adopting an iterative approach, so that any new information or perspectives that may emerge may be taken into account by revisiting early stages of the process.

In addition to the overall frameworks for risk assessment and risk management described here, progress has also been made in many areas, including the use of scientific data to characterize health risks; the principles underlying risk-management decision making; understanding public perception of risk (and differences between public and expert opinion); and the communication of information on risk, and its potential influence on perceived risk.

The development of these frameworks and associated principles and guidelines has brought an element of clarity to the field of risk assessment and risk management. Principles such as fairness, equity, utility, honesty, and autonomy encourage consistency, transparency, and completeness in decision making. Risk-management principles can be of value in assigning priorities to important risk issues competing for attention and resources, in reaching decisions in the face of scientific uncertainty about the level of risk associated with health hazards, in balancing benefits and risks, and in acknowledging social and cultural considerations in risk management. Without such guidance, risk-management decision making can be highly complex, raising difficult questions to which there are often no easy answers.

Explanation

Risk assessment may be the most important step in the risk management process, and may also be the most difficult and prone to error. In theory both are of nearly equal priority in dealing with first, but in practice it can be very difficult to manage when faced with the scarcity of resources, especially time, in which to conduct the risk management process. Expressed mathematically,

$$R_i = L_i p(L_i)$$

$$R_{total} = \sum_i L_i p(L_i)$$

Financial decisions, such as insurance, often express loss terms in dollars. In that case, the “risk” is expressed as:

$$R_i = p(L_i)$$

If the risk estimate takes into account information on the number of individuals exposed, it is termed a “population risk” and is in units of expected increased cases per a time period.

I) Risk assessment in public health

In the context of public health, risk assessment is the process of quantifying the probability of a harmful effect to individuals or populations from certain human activities.

II) How the risk is determined?

In the estimation of the risks, three or more steps are involved, requiring the inputs of different disciplines. By determine the qualitative nature of potential adverse consequences of contaminant and strength of evidence. By determining the relationship between dose and probability or incidence of effect. By determine the amount of a contaminant (dose) that individuals and populations will receive.

The results of the three steps above are then combined to produce an estimate of risk. Because of the different susceptibilities and exposures, this risk will vary within a population.

III) Acceptable risk increase

Individuals may be tempted to advocate the adoption of a zero-risk policy. After all the 1 in a million policy would still cause the death of hundreds or thousands, of people in a large enough population.

IV) Risk assessment in auditing

In auditing, risk assessment is a very crucial stage before accepting an audit engagement. According to ISA315 Understanding the Entity and its Environment and Assessing the Risks of Material Misstatement, “the auditor should perform risk assessment procedures to obtain an understanding of the entity and its environment, including its internal control.” The main purpose of risk assessment procedures is to help the auditor understand the audit client. Aspects like client's business nature, management structure and internal control system are good examples. The procedures will provide audit evidence relating to the auditor's risk assessment of a material misstatement in the client's financial statements. Then, auditor obtains initial evidence regarding the classes of transactions at the client and the operating effectiveness of the client's internal controls.

In auditing, audit risk includes inherent risk, control risk and detection risk.

V) Criticisms of quantitative risk assessment

Barry Commoner and other critics have expressed concerns that risk assessment tends to be overly quantitative and reductive. For example, they argue that risk assessments ignore qualitative differences among risks. Some charge that assessments may drop out important non-quantifiable or inaccessible information,

such as variations among the classes of people exposed to hazards. O'Brien further claims that quantitative approaches divert attention from precautionary or preventative measures.

C) Risk management

The optimal allocation of resources to arrive at a cost-effective investment in defensive measures within an organization. Risk management minimizes both risk and costs.

The process of identification, analysis and either acceptance or mitigation of uncertainty in investment decision-making. Essentially, risk management occurs anytime an investor or fund manager analyses and attempts to quantify the potential for losses in an investment and then takes the appropriate action (or inaction) given their investment objectives and risk tolerance.

Simply put, risk management is a two-step process - determining what risks exist in an investment and then handling those risks in a way best-suited to your investment objectives. Risk management occurs everywhere in the financial world. It occurs when an investor buys low-risk government bonds over more risky corporate debt, when a fund manager hedges their currency exposure with currency derivatives and when a bank performs a credit check on an individual before issuing them a personal line of credit.

1. Procedures to manage a bank's exposure to various types of risks associated with banking. This is done through a combination of internal policies, contractual arrangements with insurance companies for Banker's Blanket Bond coverage, Directors and Officers Insurance and Self-Insurance to reduce the costs from accidental loss.
2. Corporate service sold by commercial banks. Risk management is a set of services, rather than a specific product, aimed at controlling financing risk, including credit risk, and interest rate risk, through hedging devices, financial futures, and interest rate caps. The aim is to control corporate funding costs, budget interest rate expense, and limit exposure to interest rate fluctuations.

Risk management involves identifying, analyzing, and taking steps to reduce or eliminate the exposures to loss faced by an organization or individual. The practice of risk management utilizes many tools and techniques, including insurance, to manage a wide variety of risks. Every business encounters risks, some of which are predictable and under management's control, and others which are unpredictable and uncontrollable. Risk management is particularly vital for

small businesses, since some common types of losses—such as theft, fire, flood, legal liability, injury, or disability—can destroy in a few minutes what may have taken an entrepreneur year to build. Such losses and liabilities can affect day-to-day operations, reduce profits, and cause financial hardship severe enough to cripple or bankrupt a small business. But while many large companies employ a full-time risk manager to identify risks and take the necessary steps to protect the firm against them, small companies rarely have that luxury. Instead, the responsibility for risk management is likely to fall on the small business owner.

The term risk management is a relatively recent (within the last 20 years) evolution of the term “insurance management.” The concept of risk management encompasses a much broader scope of activities and responsibilities than does insurance management. Risk management is now a widely accepted description of a discipline within most large organizations. Basic risks such as fire, windstorm, employee injuries, and automobile accidents, as well as more sophisticated exposures such as product liability, environmental impairment, and employment practices, are the province of the risk management department in a typical corporation. Although risk management has usually pertained to property and casualty exposures to loss, it has recently been expanded to include financial risk management—such as interest rates, foreign exchange rates, and derivatives—as well as the unique threats to businesses engaged in E-commerce. As the role of risk management has increased, some large companies have begun implementing large-scale, organization-wide programs known as enterprise risk management.

1.4.1 Steps in the Risk Management Process

According to C. Arthur Williams Jr. and Richard M. Heins in their book *Risk Management and Insurance*, the risk management process typically includes six steps. These steps are 1) determining the objectives of the organization, 2) identifying exposures to loss, 3) measuring those same exposures, 4) selecting alternatives, 5) implementing a solution, and 6) monitoring the results. The primary objective of an organization—growth, for example—will determine its strategy for managing various risks. Identification and measurement of risks are relatively straightforward concepts. Earthquake may be identified as a potential exposure to loss, for example, but if the exposed facility is in New York the probability of earthquake is slight and it will have a low priority as a risk to be managed.

Businesses have several alternatives for the management of risk, including avoiding, assuming, reducing, or transferring the risks. Avoiding risks, or loss

prevention, involves taking steps to prevent a loss from occurring, via such methods as employee safety training. As another example, a pharmaceutical company may decide not to market a drug because of the potential liability. Assuming risks simply means accepting the possibility that a loss may occur and being prepared to pay the consequences. Reducing risks, or loss reduction, involves taking steps to reduce the probability or the severity of a loss, for example by installing fire sprinklers.

Transferring risk refers to the practice of placing responsibility for a loss on another party via a contract. The most common example of risk transference is insurance, which allows a company to pay a small monthly premium in exchange for protection against automobile accidents, theft or destruction of property, employee disability, or a variety of other risks. Because of its costs, the insurance option is usually chosen when the other options for managing risk do not provide sufficient protection. Awareness of, and familiarity with, various types of insurance policies is a necessary part of the risk management process. A final risk management tool is self-retention of risks—sometimes referred to as “self-insurance.” Companies that choose this option set up a special account or fund to be used in the event of a loss.

Any combination of these risk management tools may be applied in the fifth step of the process, implementation. The final step, monitoring, involves a regular review of the company's risk management tools to determine if they have obtained the desired result or if they require modification. Nation's Business outlined some easy risk management tools for small businesses: maintain a high quality of work; train employees well and maintain equipment properly; install strong locks, smoke detectors, and fire extinguishers; keep the office clean and free of hazards; back up computer data often; and store records securely offsite.

i) Risk Management in the Internet Age

Small businesses encounter a number of risks when they use the Internet to establish and maintain relationships with their customers or suppliers. Increased reliance on the Internet demands that small business owners decide how much risk to accept and implement security systems to manage the risk associated with online business activities. “The advent of the Internet has provided for a totally changed communications landscape. We communicate faster, more efficiently, and to a larger number of people,” Gary Griffith wrote in the Dallas Business Journal. “Shifting to Web sites and e-mail as forms of communication changes the scope, speed, and cost of advertising, customer/vendor communication, and

employee-to-employee communication. Along with the advantages are liability issues which should not be ignored.”

Conducting business online exposes a company to a wide range of potential risks, including: liability due to infringement on copyrights, patents, or trademarks; charges of defamation due to statements made on a Web site or via e-mail; charges of invasion of privacy due to unauthorized use of personal information or excessive monitoring of employee communications; liability for harassment due to employee behavior online; and legal issues due to accidental noncompliance with foreign laws. In addition, businesses connected to the Internet also face a number of potential threats from computer hackers and viruses, including a loss of business and productivity due to computer system damage, and the theft of customer information or intellectual property.

As of the early 2000s, the insurance industry had not made policies widely available to protect businesses against the risks of E-commerce. As a result, business owners had to include Internet security among their risk analysis and management activities. As a minimum level of protection, experts recommend that companies conduct a legal review of their Web site content, establish clear policies on employees' Internet and e-mail usage, and install virus protection and security systems on all computers used to access the Internet.

ii) Enterprise Risk Management

In the 1990s, the field of risk management expanded to include managing financial risks as well as those associated with changing technology and Internet commerce. As of 2000, the role of risk management had begun to expand even further to protect entire companies during periods of change and growth. As businesses grow, they experience rapid changes in nearly every aspect of their operations, including production, marketing, distribution, and human resources. Such rapid change also exposes the business to increased risk. In response, risk management professionals created the concept of enterprise risk management, which was intended to implement risk awareness and prevention programs on a company-wide basis. “Enterprise risk management ... seeks to identify, assess, and control—sometimes through insurance, more often through other means—all of the risks faced by the business enterprise, especially those created by growth,” Griffith explained.

The main focus of enterprise risk management is to establish a culture of risk management throughout a company to handle the risks associated with growth and a rapidly changing business environment. Writing in *Best's Review*, Tim Tongson recommended that business owners take the following steps in

implementing an enterprise-wide risk management program: 1) incorporate risk management into the core values of the company; 2) support those values with actions; 3) conduct a risk analysis; 4) implement specific strategies to reduce risk; 5) develop monitoring systems to provide early warnings about potential risks; and 6) perform periodic reviews of the program.

Finally, it is important that the small business owner and top managers show their support for employee efforts at managing risk. “To bring together the various disciplines and implement integrated risk management, ensuring the buy-in of top-level executives is vital,” Luis Ramiro Hernandez wrote in Risk Management. “These executives can institute the processes that enable people and resources across the company to participate in identifying and assessing risks, and tracking the actions taken to mitigate or eliminate those risks.”

Risk management is the human activity which integrates recognition of risk, risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources.

Financial Risk Management

Management of investment risks associated with Business Risk, Interest Rate Risk, Political Risk and Purchasing Power Risk. Usually fixed income financial instruments, such as fixed dollar life insurance, fixed dollar annuities, and bonds, are most susceptible to business, purchasing power, interest rate, and political risks. Variable dollar life insurance, variable dollar annuities, and common stocks are most subject to business, market, and political risks.

Financial risk management is the practice of creating economic value in a firm by using financial instruments to manage exposure to risk, particularly Credit risk and market risk. Other types include Foreign exchange, Market, Shape, Volatility, Sector, Liquidity, Inflation risks, etc. Similar to general risk management, financial risk management requires identifying its sources, measuring it, and plans to address them. As a specialization of risk management, financial risk management focuses on when and how to hedge using financial instruments to manage costly exposures to risk.

In the banking sector worldwide, Basel Accord are generally adopted by internationally active banks to tracking, reporting and exposing operational, credit and market risks.

When to use Financial Risk Management?

Finance theory (i.e., financial economics) prescribes that a firm should take on a project when it increases shareholder value. Finance theory also shows that

firm managers cannot create value for shareholders, also called its investors, by taking on project that shareholders could do for themselves at the same cost. When applied to financial risk management, this implies that firm managers should not hedge risks that investors can hedge for themselves at the same cost. This notion is captured by the hedging irrelevance proposition: In a perfect market, the firm cannot create value by hedging a risk when the price of bearing that risk within the firm is the same as the price of bearing it outside of the firm. In practice, financial markets are not likely to be perfect markets. This suggests that firm managers likely have many opportunities to create value for shareholders using financial risk management. The trick is to determine which risks are cheaper for the firm to manage than the shareholders. A general rule of thumb, however, is that market risks that result in unique risks for the firm are the best candidates for financial risk management.

Market Risk

The day-to-day potential for an investor to experience losses from fluctuations in securities prices. This risk cannot be diversified away. It is also referred to as “systematic risk”.

The beta of a stock is a measure of how much market risk a stock faces.

Investment risk associated with the psychology of the market in that emotions affect the price of a company's stock that, in most instances, has nothing to do with the current or potential earnings per share of that company.

Market risk is the risk that the value of an investment will decrease due to moves in market factors. The four standard market risk factors are:

- Equity risk or the risk that stock prices will change.
- Interest rate risk or the risk that interest rates will change.
- Currency risk or the risk that foreign exchange rates will change.
- Commodity risk or the risk that commodity prices (i.e. grains, metals, etc.) will change.

Sometimes, a fifth risk factor is also considered:

- Equity index risk, or the risk that stock or other index prices will change
- Measuring

Market risk is typically measured using a Value at Risk methodology. Value at risk is well established as a risk management technique, but it contains a number of limiting assumptions that constrain its accuracy. The first assumption is

that the composition of the portfolio measured remains unchanged over the single period of the model. For short time horizons, this limiting assumption is often regarded as acceptable. For longer time horizons, many of the transactions in the portfolio may mature during the modelling period. Intervening cash flow, embedded options, changes in floating rate interest rates, and so on are ignored in this single period modelling technique.

Market risk can also be contrasted with Specific risk, which measures the risk of a decrease in one's investment due to a change in a specific industry or sector, as opposed to a market-wide move.

- Use in Annual Reports of U.S. Corporations

In the United States, a section on market risk is mandated by the SEC in all annual reports submitted on Form 10-K. The company must detail how its own results may depend directly on financial markets. This is designed to show, for example, an investor who believes he is investing in a normal milk company that the company is in fact also carrying out non-dairy activities such as investing in complex derivatives or foreign exchange futures.

- Risk Management

All businesses take risks based on the two factors: the probability an adverse circumstance will come about and the cost of such adverse circumstance.

- Systemic risk
- Credit risk
- Legal risk
- Liquidity risk
- Operational risk
- Risk modeling
- Risk attitude

Equity Risk

Equity risk is the risk that one's investments will depreciate because of stock market dynamics causing one to lose money.

The measure of risk used in the equity markets is typically the standard deviation of a security's price over a number of periods. The standard deviation will delineate the normal fluctuations one can expect in that particular security above and below the mean, or average. However, since most investors would not

consider fluctuations above the average return as “risk”, some economists prefer other means of measuring it.

Interest Rate Risk

The risk that an investment's value will change due to a change in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve or in any other interest rate relationship. Such changes usually affect securities inversely and can be reduced by diversifying (investing in fixed-income securities with different durations) or hedging (e.g. through an interest rate swap).

Interest rate risk affects the value of bonds more directly than stocks, and it is a major risk to all bondholders. As interest rates rise, bond prices fall and vice versa. The rationale is that as interest rates increase, the opportunity cost of holding a bond decreases since investors are able to realize greater yields by switching to other investments that reflect the higher interest rate. For example, a 5% bond is worth more if interest rates decrease since the bondholder receives a fixed rate of return relative to the market, which is offering a lower rate of return as a result of the decrease in rates.

Risk that changes in interest rates will adversely affect the value of an investor's securities portfolio. For example, an investor with large holdings in long-term bonds and utilities has assumed a significant interest-rate risk, because the value of those bonds and utility stocks will fall if interest rates rise. Investors can take various precautionary measures to Hedge their interest-rate risk, such as buying Interest-Rate Futures or Interest-Rate Options Contracts.

Investment risk associated with the possibility that there is a rise in the interest rates after a fixed income security has been purchased resulting in a decline in that security's price. The longer the maturity dates of that security, the greater the exposure of the security's price to interest rate fluctuations. The fluctuations in interest rates can have a dramatic effect on the insurance company's bond portfolio.

Risk that an interest-earning asset, such as a bank loan, will decline in value as interest rates change. Longer maturity, fixed rate loans (for example, 30-year conventional mortgages) are more sensitive to price risk from changes in rates than variable rate loans. Another type of interest risk is Reinvestment Risk or the possibility that maturing loans cannot be replaced by new loans earning the same interest rate.

Interest rate risk is the risk that the relative value of an interest-bearing asset, such as a loan or a bond, will worsen due to an interest rate increase. In

general, as rates rise, the price of a fixed rate bond will fall, and vice versa. Interest rate risk is commonly measured by the bond's duration, the oldest of the many techniques now used to manage interest rate risk. Asset liability management is a common name for the complete set of techniques used to manage risk within a general enterprise risk management framework.

Calculating Interest Rate Risk

Interest rate risk analysis is almost always based on simulating movements in one or more yield curves using the Heath-Jarrow-Morton framework to ensure that the yield curve movements are both consistent with current market yield curves and such that no riskless arbitrage is possible. The Heath-Jarrow-Morton framework was developed in the early 1990s by David Heath of Cornell University, Andrew Morton of Lehman Brothers, and Robert A. Jarrow of Kamakura Corporation and Cornell University.

There are a number of standard calculations for measuring the impact of changing interest rates on a portfolio consisting of various assets and liabilities. The most common techniques include:

- Marking to market, calculating the net market value of the assets and liabilities, sometimes called the “market value of portfolio equity”
- Stress testing this market value by shifting the yield curve in a specific way. Duration is a stress test where the yield curve shift is parallel
- Calculating the Value at Risk of the portfolio
- Calculating the multi period cash flow or financial accrual income and expense for N periods forward in a deterministic set of future yield curves
- Doing step 4 with random yield curve movements and measuring the probability distribution of cash flows and financial accrual income over time.
- Measuring the mismatch of the interest sensitivity gap of assets and liabilities, by classifying each asset and liability by the timing of interest rate reset or maturity, whichever comes first?

A) Hedging Interest Rate Risk

Interest rate risks can be hedged using fixed income instruments or interest rate swaps. Interest rate risk can be reduced by buying bonds with shorter duration, or by entering into a fixed-for-floating interest rate swap.

Currency Risk

A form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged.

For example if you are a U.S. investor and you have stocks in Canada, the return that you will realize is affected by both the change in the price of the stocks and the change of the Canadian dollar against the U.S. dollar. Suppose that you realized a return in the stocks of 15% but if the Canadian dollar depreciated 15% against the U.S. dollar, you would realize no gain.

Academic studies of currency risk suggest - although, without absolute certainty - that investors bearing currency risk are not compensated with higher potential returns, meaning it is essentially a needless risk to bear.

Situation where the United States dollar rises in value in comparison with other foreign currencies resulting in the decrease in the value of the foreign securities. This is due to the fact that the principal and income payments on the foreign securities are based on that particular foreign currency and thus must be converted into United States dollars. When that particular foreign currency is weak, and the United States dollar is strong, fewer dollars will be received upon conversion.

Currency risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged.

- Transaction risk is the risk that exchange rates will change unfavorably over time. It can be hedged against using forward currency contracts;
- Translation risk is an accounting risk, proportional to the amount of assets held in foreign currencies. Changes in the exchange rate over time will render a report inaccurate, and so assets are usually balanced by borrowings in that currency.

The exchange risk associated with a foreign denominated instrument is a key element in foreign investment. This risk flows from differential monetary policy and growth in real productivity, which results in differential inflation rates.

For example if you are a U.S. investor and you have stocks in Canada, the return that you will realize is affected by both the change in the price of the stocks and the change of the Canadian dollar against the U.S. dollar. Suppose that you

realized a return in the stocks of 15% but if the Canadian dollar depreciated 15% against the U.S. dollar, you would realize no gain.

When a firm conducts transactions in different currencies, it exposes itself to risk. The risk arises because currencies may move in relation to each other. If a firm is buying and selling in different currencies, then revenue and costs can move upwards or downwards as exchange rates between currencies change. If a firm has borrowed funds in a different currency, the repayments on the debt could change or, if the firm has invested overseas, the returns on investment may alter with exchange rate movements — this is usually known as foreign currency exposure

Commodity Risk

Commodity risk refers to the uncertainties of future market values and of the size of the future income, caused by the fluctuation in the prices of commodities. These commodities may be grains, metals, gas, electricity etc. A Commodity enterprise needs to deal with the following kinds of risks:

1. Price risk (Risk arising out of adverse movements in the world prices, exchange rates, basis between local and world prices)
2. Quantity risk
3. Cost risk (Input price risk)
4. Political risk

Groups at Risk

There are broadly four categories of agents who face the commodities risk

1. Producers (farmers, plantation companies, and mining companies) face price risk, cost risk (on the prices of their inputs) and quantity risk
2. Buyers (cooperatives, commercial traders and trait ants) face price risk between the time of up-country purchase buying and sale, typically at the port, to an exporter.
3. Exporters face the same risk between purchase at the port and sale in the destination market; and may also face political risks with regard to export licenses or foreign exchange conversion.
4. Governments face price and quantity risk with regard to tax revenues, particularly where tax rates rise as commodity prices rise (generally the case with metals and energy exports) or if support or other payments depend on the level of commodity prices.

Credit Risk

The possibility of a loss occurring due to the failure to meet contractual debt obligations.

This is one of the measurements of the likelihood that a party will default on a financial agreement.

Risk that a borrower will not pay a loan as called for in the original loan agreement, and may eventually Default on the obligation. Credit risk is one of the primary risks in bank lending, in addition to Interest Rate Risk.

Credit risk is the risk of loss due to a debtor's non-payment of a loan or other line of credit (either the principal or interest (coupon) or both).

a) Faced By Lenders to Consumers

Most lenders employ their own models (Credit Scorecards) to rank potential and existing customers according to risk, and then apply appropriate strategies. With products such as unsecured personal loans or mortgages, lenders charge a higher price for higher risk customers and vice versa. With revolving products such as credit cards and overdrafts, risk is controlled through careful setting of credit limits. Some products also require security, most commonly in the form of property.

b) Faced by Lenders to Business

Lenders will trade off the cost/benefits of a loan according to its risks and the interest charged. But interest rates are not the only method to compensate for risk. Protective covenants are written into loan agreements that allow the lender some controls. These covenants may:

- Limit the borrower's ability to weaken his balance sheet voluntarily e.g. by buying back shares, or paying dividends, or borrowing further.
- Allow for monitoring the debt requiring audits, and monthly reports.
- Allow the lender to decide when he can recall the loan based on specific events or when financial ratios like debt/equity or interest coverage deteriorate.

A recent innovation to protect lenders and bond holders from the danger of default are credit derivatives, most commonly in the form of a credit default swap. These financial contracts allow companies to buy protection against defaults from a third party, the protection seller. The protection seller receives a periodic fee

(the credit spread) as compensation for the risk it takes, and in return it agrees to buy the debt should a credit event (“default”) occur.

c) Faced by Business

Companies carry credit risk when, for example, they do not demand up-front cash payment for products or services. By delivering the product or service first and billing the customer later - if it's a business customer the terms may be quoted as net 30 - the company is carrying a risk between the delivery and payment.

Significant resources and sophisticated programs are used to analyse and manage risk. Some companies run a credit risk department whose job is to assess the financial health of their customers, and extend credit (or not) accordingly. They may use in house programs to advice on avoiding, reducing and transferring risk. They also use third party provided intelligence. Companies like Moody's and Dun and Bradstreet provide such information for a fee.

For example, a distributor selling its products to a troubled retailer may attempt to lessen credit risk by tightening payment terms to “net 15”, or by actually selling fewer products on credit to the retailer, or even cutting off credit entirely, and demanding payment in advance. Such strategies impact sales volume but reduce exposure to credit risk and subsequent payment defaults.

Credit risk is not really manageable for very small companies (i.e., those with only one or two customers). This makes these companies very vulnerable to defaults, or even payment delays by their customers.

The use of a collection agency is not really a tool to manage credit risk; rather, it is an extreme measure closer to a write down in that the creditor expects a below-agreed return after the collection agency takes its share (if it is able to get anything at all).

d) Faced by Individuals

Consumers may face credit risk in a direct form as depositors at banks or as investors/lenders. They may also face credit risk when entering into standard commercial transactions by providing a deposit to their counterparty, e.g. for a large purchase or a real estate rental. Employees of any firm also depend on the firm's ability to pay wages, and are exposed to the credit risk of their employer.

In some cases, governments recognize that an individual's capacity to evaluate credit risk may be limited, and the risk may reduce economic efficiency; governments may enact various legal measures or mechanisms with the intention

of protecting consumers against some of these risks. Bank deposits, notably, are insured in many countries (to some maximum amount) for individuals, effectively limiting their credit risk to banks and increasing their willingness to use the banking system.

Other types of risk

- Market risk
- Interest rate risk
- Legal risk
- Liquidity risk
- Operational risk
- Volatility risk
- Settlement risk
- Concentration risk

1. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties. This experience is common in both G-10 and non-G-10 countries.
2. Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization.
3. For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including in the banking book and in the trading book, and both on

and off the balance sheet. Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions.

4. Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should now have a keen awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The Basel Committee is issuing this document in order to encourage banking supervisors globally to promote sound practices for managing credit risk. Although the principles contained in this paper are most clearly applicable to the business of lending, they should be applied to all activities where credit risk is present.
5. The sound practices set out in this document specifically address the following areas: (i) establishing an appropriate credit risk environment; (ii) operating under a sound credit-granting process; (iii) maintaining an appropriate credit administration, measurement and monitoring process; and (iv) ensuring adequate controls over credit risk. Although specific credit risk management practices may differ among banks depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program will address these four areas. These practices should also be applied in conjunction with sound practices related to the assessment of asset quality, the adequacy of provisions and reserves, and the disclosure of credit risk, all of which have been addressed in other recent Basel Committee documents.
6. While the exact approach chosen by individual supervisors will depend on a host of factors, including their on-site and off-site supervisory techniques and the degree to which external auditors are also used in the supervisory function, all members of the Basel Committee agree that the principles set out in this paper should be used in evaluating a bank's credit risk management system. Supervisory expectations for the credit risk management approach used by individual banks should be commensurate with the scope and sophistication of the bank's activities. For smaller or less

sophisticated banks, supervisors need to determine that the credit risk management approach used is sufficient for their activities and that they have instilled sufficient risk-return discipline in their credit risk management processes.

7. The Committee stipulates in Sections II through VI of the paper, principles for banking supervisory authorities to apply in assessing bank's credit risk management systems. In addition, the appendix provides an overview of credit problems commonly seen by supervisors.
8. A further particular instance of credit risk relates to the process of settling financial transactions. If one side of a transaction is settled but the other fails, a loss may be incurred that is equal to the principal amount of the transaction. Even if one party is simply late in settling, then the other party may incur a loss relating to missed investment opportunities. Settlement risk (i.e. the risk that the completion or settlement of a financial transaction will fail to take place as expected) thus includes elements of liquidity, market, operational and reputational risk as well as credit risk. The level of risk is determined by the particular arrangements for settlement. Factors in such arrangements that have a bearing on credit risk include: the timing of the exchange of value; payment/settlement finality; and the role of intermediaries and clearing houses.

Check your progress 3

1. Risk management will not involve:
 - a. identification of various types of risk
 - b. assessing impact of risks
 - c. finding risk appetite of organisation
 - d. no visualisation about risk management procedures and controls
2. Risk management is the process of _____risk and developing methods to mitigate and manage it.
 - a. Recognising
 - b. Increasing
 - c. Creating
 - d. Eliminating

1.5 Risk Modelling

It involves the use of formal econometric techniques which shows aggregate risk in financial portfolio. It is one of many subtasks within the broader area of financial modelling. It uses techniques such as Value-at-Risk (VaR), Historical Simulation (HS) or Extreme Value Theory (EVT) to find portfolio and make forecasts of losses which could be incurred. It can be grouped into credit risk, liquidity risk, interest rate risk, and operational risk categories.

1.5.1 Operational Risk

According to paragraph 644 of International Convergence of Capital Measurement and Capital Standards, known as Basel II, operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. Although the risks apply to any organisation in business it is of particular relevance to the banking regime where regulators are responsible for establishing safeguards to protect against systemic failure of the banking system and the economy. The Basel II definition includes legal risk, but excludes strategic risk i.e. the risk of a loss arising from a poor strategic business decision. This definition also excludes reputational risk (damage to an organisation through loss of its reputation or standing) although it is understood that a significant but non-catastrophic operational loss could still affect its reputation possibly leading to a further collapse of its business and organisational failure.

- **Background**

Since the mid-1990s, the topics of market risk and credit risk have been the subject of much debate and research, with the result that financial institutions have made significant progress in the identification, measurement and management of both these forms of risk.

Globalization and deregulation in financial markets, combined with increased sophistication in financial technology, have introduced more complexities into the activities of banks and therefore their risk profiles. These reasons underscore banks' and supervisors' growing focus upon the identification and measurement of operational risk.

Events such as the September 11 terrorist attacks, rogue trading losses at Barings, AIB and National Australia Bank, and the Y2K scare serve to highlight

the fact that the scope of risk management extends beyond merely market and credit risk.

The list of risks (and, more importantly, the scale of these risks) faced by banks today includes fraud, system failures, terrorism and employee compensation claims. These types of risk are generally classified under the term 'operational risk'.

The identification and measurement of operational risk is a real and live issue for modern-day banks, particularly since the decision by the Basel Committee on Banking Supervision (BCBS) to introduce a capital charge for this risk as part of the new capital adequacy framework (Basel II).

- **Definition**

Operational risk was initially defined in the negative as any form of risk that is not market or credit risk. This negative definition is rather vague as it does not tell us much about the exact types of operational risks faced by banks today, nor does it provide banks with a proper basis for measuring risk and calculating capital requirements.

A better definition is provided by the Basel Committee, who define operational risk as:

“The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.”

This definition includes legal risk, but excludes strategic and reputational risk. However, the Basel Committee recognizes that operational risk is a term that has a variety of meanings and therefore, for internal purposes, banks are permitted to adopt their own definitions of operational risk, provided the minimum elements in the Committee's definition are included.

Although the definition has gained some acceptability in the banking industry, there are also some analysts who believe it to be flawed, describing it as opaque, open-ended and leaving many unanswered questions regarding the exact type of events that can be attributed to operational losses.

In particular, the somewhat abrupt manner in which legal risk is incorporated into the definition and then left undeveloped has been the subject of criticism, as has the decision to exclude certain risks (reputational and strategic).

- a) **Basel II Event Type Categories**

The following lists the official Basel II defined event types with some examples for each category:

- **Internal Fraud** - misappropriation of assets, tax evasion, intentional mismarking of positions, bribery
- **External Fraud** - theft of information, hacking damage, third-party theft and forgery
- **Employment Practices and Workplace Safety** - discrimination, workers compensation, employee health and safety
- **Clients, Products, and Business Practice** - market manipulation, antitrust, improper trade, product defects, fiduciary breaches, account churning
- **Damage to Physical Assets** - natural disasters, terrorism, vandalism
- **Business Disruption and Systems Failures** - utility disruptions, software failures, hardware failures
- **Execution, Delivery, and Process Management** - data entry errors, accounting errors, failed mandatory reporting, negligent loss of client assets

Difficulties

It is relatively straightforward for an organisation to set and observe specific, measurable levels of market risk and credit risk. By contrast it is relatively difficult to identify or assess levels of operational risk and its many sources. Historically organisations have accepted operational risk as an unavoidable cost of doing business.

b) Methods of Operational Risk Management

Basel II and various Supervisory bodies of the countries have prescribed various soundness standards for Operational Risk Management for Banks and similar Financial Institutions. To complement these standards, Basel II has given guidance to 3 broad methods of Capital calculation for Operational Risk

- **Basic Indicator Approach** - based on annual revenue of the Financial Institution
- **Standardised Approach** - based on annual revenue of each of the broad business lines of the Financial Institution
- **Advanced Measurement Approaches** - based on the internally developed risk measurement framework of the bank adhering to the standards prescribed (methods include IMA, LDA, Scenario-based, Scorecard etc.)

The Operational Risk Management framework should include identification, measurement and monitoring, reporting, control and mitigation frameworks for Operational Risk.

1.5.2 Liquidity Risk

Risk that a bank will have to sell assets at a loss to meet cash demands, for example, depositors' demands for funds. Liquidity risk is generally explained as a ratio comparing available liquidity to the demand for funds.

Liquidity risk arises from situations in which a party interested in trading an asset cannot do it because nobody in the market wants to trade that asset. Liquidity risk becomes particularly important to parties who are about to hold or currently hold an asset, since it affects their ability to trade.

Manifestation of liquidity risk is very different from a drop of price to zero. In case of a drop of an asset's price to zero, the market is saying that the asset is worthless. However, if one party cannot find another party interested in trading the asset, this can potentially be only a problem of the market participants with finding each other. This is why liquidity risk is usually found higher in emerging markets or low-volume markets.

Liquidity risk is financial risk due to uncertain liquidity. An institution might lose liquidity if its credit rating falls, it experiences sudden unexpected cash outflows, or some other event causes counterparties to avoid trading with or lending to the institution. A firm is also exposed to liquidity risk if markets on which it depends are subject to loss of liquidity.

Liquidity risk tends to compound other risks. If a trading organization has a position in an illiquid asset, its limited ability to liquidate that position at short notice will compound its market risk. Suppose a firm has offsetting cash flows with two different counterparties on a given day. If the counterparty that owes it a payment defaults, the firm will have to raise cash from other sources to make its payment. Should it be unable to do so, it too will default. Here, liquidity risk is compounding credit risk.

A position can be hedged against market risk but still entail liquidity risk. This is true in the above credit risk example—the two payments are offsetting, so they entail credit risk but not market risk. Another example is the 1993 Metallgesellschaft debacle. Futures were used to hedge an OTC obligation. It is debatable whether the hedge was effective from a market risk standpoint, but it

was the liquidity crisis caused by staggering margin calls on the futures that forced Metallgesellschaft to unwind the positions.

Accordingly, liquidity risk has to be managed in addition to market, credit and other risks. Because of its tendency to compound other risks, it is difficult or impossible to isolate liquidity risk. In all but the most simple of circumstances, comprehensive metrics of liquidity risk do not exist. Certain techniques of asset-liability management can be applied to assessing liquidity risk. A simple test for liquidity risk is to look at future net cash flows on a day-by-day basis. Any day that has a sizeable negative net cash flow is of concern. Such an analysis can be supplemented with stress testing. Look at net cash flows on a day-to-day basis assuming that an important counterparty defaults.

Analyses such as these cannot easily take into account contingent cash flows, such as cash flows from derivatives or mortgage-backed securities. If an organization's cash flows are largely contingent, liquidity risk may be assessed using some form of scenario analysis. A general approach using scenario analysis might entail the following high-level steps:

- Construct multiple scenarios for market movements and defaults over a given period of time
- Assess day-to-day cash flows under

- **Option**

Options are financial instruments that convey the right, but not the obligation, to engage in a future transaction on some underlying security. For example, buying a call option provides the right to buy a specified quantity of a security at a set strike price at some time on or before expiration, while buying a put option provides the right to sell. Upon the option holder's choice to exercise the option, the party who sold, or wrote, the option must fulfil the terms of the contract

The theoretical value of an option can be determined by a variety of techniques. These models, which are developed by quantitative analysts, can also predict how the value of the option will change in the face of changing conditions. Hence, the risks associated with trading and owning options can be understood and managed with some degree of precision.

Exchange-traded options form an important class of options which have standardized contract features and trade on public exchanges, facilitating trading among independent parties. Over-the-counter options are traded between private parties, often well-capitalized institutions that have negotiated separate trading

and clearing arrangements with each other. Another important class of options, particularly in the U.S. are employee stock options, which are awarded by a company to their employees as a form of incentive compensation.

Other types of options exist in many financial contracts, for example real estate options are often used to assemble large parcels of land, and prepayment options are usually included in mortgage loans. However, many of the valuation and risk management principles apply across all financial options.

- **Contract Specifications**

Every financial option is a contract between the two counterparties with the terms of the option specified in a term sheet. Option contracts may be quite complicated; however, at minimum, they usually contain the following specifications: whether the option holder has the right to buy (a call option) or the right to sell (a put option)

- The quantity and class of the underlying asset(s) (e.g. 100 shares of xyz co. B stock)
- The strike price, also known as the exercise price, which is the price at which the underlying transaction will occur upon exercise
- The expiration date which is the last date the option can be exercised
- The settlement terms, for instance whether the writer must deliver the actual asset on exercise, or may simply tender the equivalent cash amount
- The terms by which the option is quoted in the market, usually a multiplier such as 100, to convert the quoted price into actual premium amount

- **Types of Options**

The primary types of financial options are:

- Exchange traded options (also called “listed options”) is a class of exchange traded derivatives. Exchange traded options have standardized contracts, and are settled through a clearing house with fulfillment guaranteed by the credit of the exchange. Since the contracts are standardized, accurate pricing models are often available. Exchange traded options include:

1. Stock options,

2. Commodity options,
 3. Bond options and other interest rate options
 4. Index (equity) options, and
 5. Options on futures contracts
- Over-the-counter, or OTC options are traded between two private parties, and are not listed on an exchange. The terms of an OTC option are unrestricted and may be individually tailored to meet any business need. In general, at least one of the counterparties to an OTC option is a well-capitalized institution. Option types commonly traded over the counter include:
 1. Interest rate options
 2. Currency cross rate options, and
 3. Options on swaps or swaptions.

Employee stock options are issued by a company to its employees as compensation.

- **Option Styles**

Naming conventions are used to help identify properties common to many different types of options. These include:

- European option - an option that may only be exercised on expiration.
- American option - an option that may be exercised on any trading day on or before expiration.
- Bermudan option - an option that may be exercised only on specified dates on or before expiration.
- Barrier option - any option with the general characteristic that the underlying security's price must reach some trigger level before the exercise can occur.

1.5.3 Valuation Models

The value of an option can be estimated using a variety of quantitative techniques based on the concept of risk neutral pricing and using stochastic calculus. In general, standard option valuation models depend on the following factors:

- The current market price of the underlying security,
- The strike price of the option, particularly in relation to the current market price of the underlies,
- The cost of holding a position in the underlying security, including interest and dividends,
- The time to expiration together with any restrictions on when exercise may occur, and
- An estimate of the future volatility of the underlying security's price over the life of the option.

Check your progress 4

1. _____ varies inversely with profitability.
- | | |
|--------------|------------------|
| a. Liquidity | c. Equity |
| b. Risk | d. Profitability |

1.6 Model Implementation

Once a valuation model has been chosen, there are a number of different techniques used to take the mathematical models to implement the models.

1.6.1 Analytic Techniques

In some cases, one can take the mathematical model and using analytic methods develop closed form solutions. The resulting solutions are useful because they are rapid to calculate.

a) Binomial Tree Pricing Model

Closely following the derivation of Black and Scholes, John Cox, Stephen Ross and Mark Rubinstein developed the original version of the binomial options pricing model. It models the dynamics of the option's theoretical value for discrete time intervals over the option's duration.

b) Monte Carlo Models

For many classes of options, traditional valuation techniques are intractable due to the complexity of the instrument. In these cases, a Monte Carlo approach may often be useful.

c) Finite Difference Models

The equations used to value options can often be expressed in terms of partial differential equations, and once expressed in this form, a finite different model can be derived.

d) Other Models

Other numerical implementations which have been used to value options include finite element methods.

1.6.2 Risks

As with all securities, trading options entails the risk of the option's value changing over time. In general, the change in the value of an option can be derived from Ito's lemma as:

$$dC = \Delta dS + \Gamma \frac{dS^2}{2} + \kappa d\sigma + \theta dt$$

where the greeks Δ , Γ , κ and θ are the standard hedge parameters calculated from an option valuation model, such as Black-Scholes, and dS , $d\sigma$ and dt are unit changes in the underlies price, the underlies volatility and time, respectively.

The corresponding price sensitivity formula for this portfolio Π is:

$$d\Pi = \Delta dS - \Delta dS + \Gamma \frac{dS^2}{2} + \kappa d\sigma + \theta dt = \Gamma \frac{dS^2}{2} + \kappa d\sigma + \theta dt$$

1.6.3 Pin Risk

A special situation called pin risk can arise when the underlie closes at or very close to the option's strike value on the last day the option is traded prior to expiration.

Check your progress 5

1. Risk showing assets are sold at low prices as of sudden surge in withdrawals of liabilities are known as:
 - a. payment risk
 - b. liquidity risk
 - c. income risk
 - d. balance risk

1.7 Let Us Sum Up

In this unit we have learnt that financial instruments are categorised as equity based, ownership of the asset, or debt based, representing a loan made by an investor to owner of asset.

On the other hand, foreign exchange instruments comprise of third, unique type of instrument. So the financial instruments is used to show any form of funding medium - mostly those used for borrowing in money markets, e. g. bills of exchange, bonds, etc.

There are certain financial instruments like cash instrument and derivative instrument. In case of cash instruments, the value is determined directly by markets which shows securities, loans and deposits while derivative instruments are such type of financial instruments where derive value from other financial instrument or variable are divided into exchange-traded derivatives and over-the-counter (OTC) derivatives.

It is studied that the money market can be bearish or bullish. When a bear market comes along, investors realize the stock market will becomes risky while in bear market, the market conditions becomes unfavourable as prices of securities falls.

There are certain risk involves in investment and return on money depends on type and nature of market. So we see that in case of acceptable risk, the fund is partly evolved from realization in terms of safety.

Further, risk assessment is explained as characterization of the potential adverse health effects of human exposures to environmental hazards. It comprises of four steps: hazard identification, dose-response assessment, exposure assessment and risk characterization.

Risk Management is a concept or theory which minimizes risk and costs. The process of identification, analysis and acceptance of uncertainty in investment decision-making occurs anytime an investor or fund manager analyses and attempts to quantify potential for losses in an investment.

We see that risk modelling carries number of techniques including market risk, Value-at-Risk (VaR), Historical Simulation (HS), or Extreme Value Theory (EVT) in order to analyse a portfolio and make forecasts of the likely losses that would be incurred for a variety of risks. This type of risks are normally grouped as credit risk, liquidity risk, interest rate risk and operational risk.

It is seen that liquidity risk pears when a party interested in trading an asset cannot do as nobody in market wants to trade. So in such situation, liquidity risk becomes particularly important to parties who are about to hold or currently hold an asset, since it affects their ability to trade.

1.8 Answer for Check Your Progress

Check your progress 1

Answers: (1-d)

Check your progress 2

Answers: (1-c)

Check your progress 3

Answers: (1-d), (2-a)

Check your progress 4

Answers: (1-a)

Check your progress 5

Answers: (1-b)

1.9 Glossary

1. **Current Assets** - Assets which are altered to cash within a relatively short period of time, usually 12 months.
2. **Market Capitalization** - It is a broad measure of the size or value of a publicly traded company.
3. **Bear Market** - It shows a period of generally falling stock prices.
4. **Bull Market** - It shows a period of generally rising stock prices.
5. **Risk** - The possibility that an investment will not perform as anticipated.
6. **Risk Tolerance** - The level of risk an investor is willing to accept in the pursuit of potential financial reward.

1.10 Assignment

What is mitigation plan? How it implement? What are the limitations of plan?

1.11 Activities

Explain credit risk with faced by lenders to customers and faced by Lenders to business and faced by business.

1.12 Case Study

What is money market? What are the risk factors involve? Give the detail note.

1.13 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly and Brown – Investment Analysis and Portfolio Mgmt. – Thomson Learning, 7/e, 2004
8. Ranganathan and Madhumathi – Investment Analysis and Portfolio Mgmt. – Pearson, PHI.

UNIT 2: THE BASIC TRADES OF TRADED STOCK OPTIONS

Unit Structure

- 2.0 Learning Objectives**
- 2.1 Introduction**
- 2.2 Trading**
- 2.3 The Basic Trades of Traded Stock Options**
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- 2.17 Further Readings**

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Trading
- Basic Trades of Traded Stock Options
- Derivatives
- Funded Credit Derivative Products

2.1 Introduction

The study about the shot put and shot call options. American options at any point during the life of the contract, they are more valuable than European options which can only be exercised at maturity.

Derivatives are financial instruments whose value is derived from the value of something else. After than we study what are the types of derivatives. Inflation and inflation bond and index basis.

2.2 Trading

The most common way to trade options is via standardized options contracts that are listed by various futures and options exchanges. As an intermediary to both sides of the transaction, the benefits the exchange provides to the transaction include:

- Fulfillment of contract is backed by the credit of the exchange, which typically has the highest rating (aaa),
- Counterparties remain anonymous,
- Enforcement of market regulation to ensure fairness and transparency, and
- Maintenance of orderly markets, especially during fast trading conditions.

Over-the-counter options contracts are not traded on exchanges, but instead between two independent parties. Ordinarily, at least one of the counterparties is a well-capitalized institution.

Check your progress 1

1. Trading is used in:

- a. cash
- b. equity
- c. mutual fund
- d. none of above

2.3 The Basic Trades of Traded Stock Options

These trades are described from the point of view of a speculator. If they are combined with other positions, they can also be used in hedging.

1) Long Call

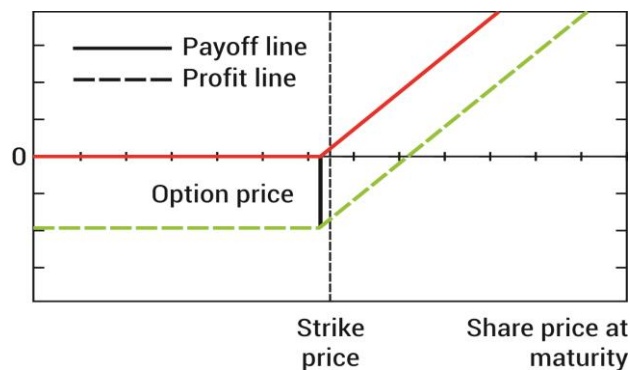


Fig 2.1 Payoffs and Profits from a Long Call

A trader who believes that a stock's price will increase might buy the right to purchase the stock (a call option) rather than just buy the stock. He would have no obligation to buy the stock, only the right to do so until the expiration date. If the stock price increases over the exercise price by more than the premium paid, he will profit. If the stock price decreases, he will let the call contract expire worthless, and only lose the amount of the premium. A trader might buy the option instead of shares, because for the same amount of money, he can obtain a larger number of options than shares. If the stock rises, he will thus realize a larger gain than if he had purchased shares.

2) Short Call

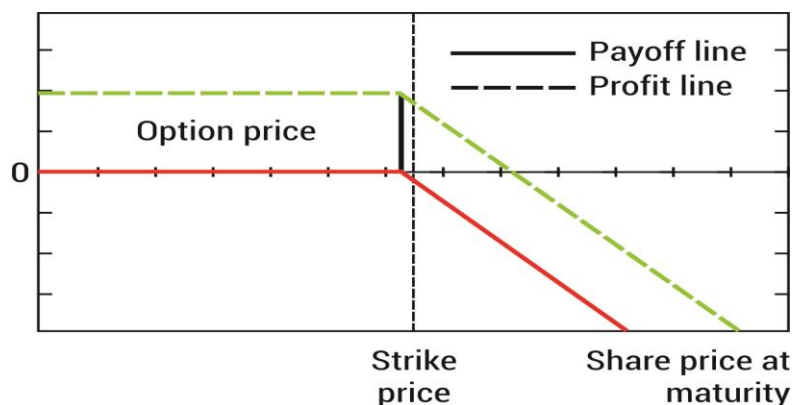


Fig 2.2 Payoffs and Profits from a Naked Short Call

A trader who believes that a stock price will decrease can short sell the stock or instead sell a call. Both tactics are generally considered inappropriate for small investors.

3) Long Put

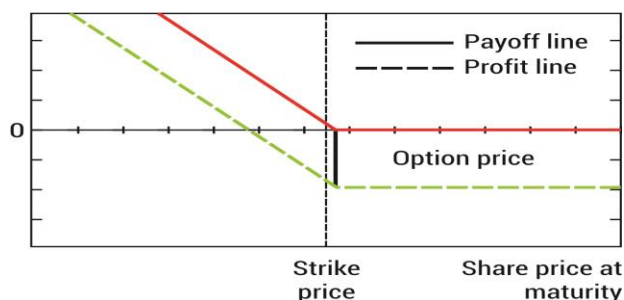


Fig 2.3 Payoffs and Profits from a Long Put

A trader who believes that a stock's price will decrease can buy the right to sell the stock at a fixed price (a put option). If the stock price decreases below the exercise price by more than the premium paid, he will profit. If the stock price increases, he will just let the put contract expire worthless and only lose his premium paid.

4) Short Put

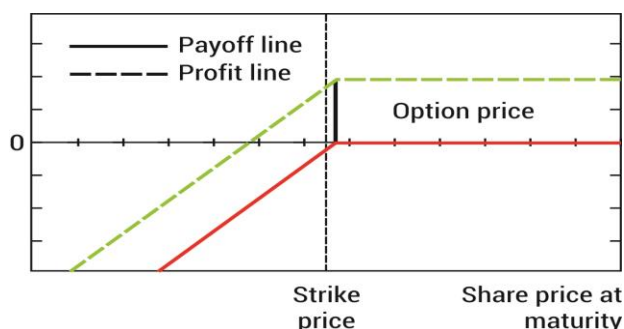


Fig 2.4 Payoffs and Profits from a Naked Short Put

A trader who believes that a stock price will increase can buy the stock or instead sell a put. The trader selling a put has an obligation to buy the stock from the put buyer at the put buyer's option. If the stock price increases, the short put position will make a profit in the amount of the premium. If the stock price decreases below the exercise price by more than the amount of the premium, the short will lose money, with the potential loss being up to the full value of the stock.

Check your progress 2

1. If the stock price increases over exercise price by more than premium, then the person will have:
 - a. profit
 - b. loss
 - c. same as exercise price
 - d. none of above

2.4 Option Strategies

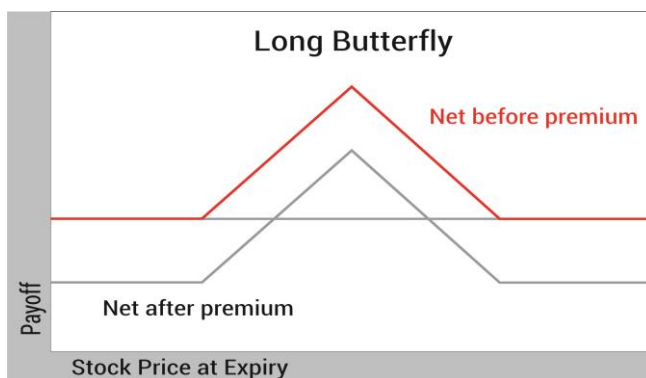


Fig 2.5 Payoffs from Buying a Butterfly Spread

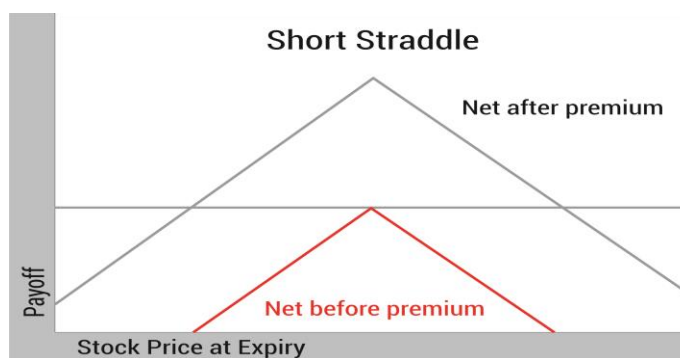


Fig 2.6 Payoffs from Selling a Straddle

Combining any of the four basic kinds of option trades (possibly with different exercise prices and maturities) and the two basic kinds of stock trades (long and short) allows a variety of options strategies. Simple strategies usually combine only a few trades, while more complicated strategies can combine several.

1) American Option

An option that can be exercised anytime during its life. The majority of exchange-traded options are American.

Since investors have the freedom to exercise their American options at any point during the life of the contract, they are more valuable than European options which can only be exercised at maturity.

Consider this example: If you bought a Ford March Call option expiring in March of 2006 in March 2005, you would have the right to exercise the call option at any time up until its expiration date. Had the Ford option been a European option, you could only exercise the option at the expiry date in March '06. During the year, the share price could have been most optimal for exercise in December of 2005, but you would have to wait to exercise your option until March 2006, where it could be out-of-the-money and virtually worthless.

2) American and European Options

The key difference between American and European options relates to when the options can be exercised:

- A European option may be exercised only at the expiry date of the option, i.e. at a single pre-defined point in time.
- An American option on the other hand may be exercised at any time before the expiry date.

For both, the pay-off - when it occurs - is via:

$\text{Max} [(S - K), 0]$, for a call option

$\text{Max} [(K - S), 0]$, for a put option:

(Where K is the Strike price and S is the spot price of the underlying asset)

3) Difference in Value

European options are typically valued using the Black-Scholes or Black model formula. This is a simple equation with a closed-form solution that has become standard in the financial community.

4) **Non-Vanilla Exercise Rights**

There are other, more unusual exercise styles in which the pay-off value remains the same as a standard option but where early exercise occurs differently:

- A Bermudan option is an option where the buyer has the right to exercise at a set (always discretely spaced) number of times.
- A Canary option is an option whose exercise style lies somewhere between European options and Bermudan options.
- A capped-style option is not an interest rate cap but a conventional option with a pre-defined profit cap written into the contract.
- A compound option is an option on another option, and as such presents the holder with two separate exercise dates and decisions.
- A swing option gives the purchaser the right to exercise one and only one call or put on any one of a number of specified exercise dates (this latter aspect is Bermudan).

5) **“Exotic” Options with Standard Exercise Styles**

These options can be exercised either European style or American style; they differ from the plain vanilla option only in the calculation of their pay-off value.

6) **Non-Vanilla Path Dependent “Exotic” Options**

The exotic options are still options where payoffs calculate quite differently from those above. Although these instruments are far more unusual they can also vary in exercise style (at least theoretically) between European and American:

Check your progress 3

1. Which is correct in case of European Options?
 - a. It gets exercised only at expiry date of option
 - b. It gets exercised at any time before expiry date
 - c. The call option is calculated with $\text{Max} [(S + K), 0]$
 - d. It will not typically valued by Black model formula

2.5 Derivatives

Derivatives are financial instruments whose value is derived from the value of something else. They generally take the form of contracts under which the parties agree to payments between them based upon the value of an underlying asset or other data at a particular point in time. The main types of derivatives are futures, forwards, options and swaps.

The main use of derivatives is to reduce risk for one party while offering the potential for a high return (at increased risk) to another. The diverse range of potential underlying assets and payoff alternatives leads to a huge range of derivatives contracts available to be traded in the market.

2.5.1 Credit Derivative

Privately held negotiable bilateral contracts that allow users to manage their exposure to credit risk. Credit derivatives are financial assets like forward contracts, swaps, and options for which the price is driven by the credit risk of economic agents (private investors or governments).

For example, a bank concerned that one of its customers may not be able to repay a loan can protect itself against loss by transferring the credit risk to another party while keeping the loan on its books.

Derivative contract whose redemption value is linked to specified credit-related events, such as bankruptcy, credit downgrade, non-payment, or default. These agreements gained popularity in the 1990s and have assumed numerous forms: credit default swaps, credit-linked notes, and total return swaps. Banks use credit derivatives to actively manage their credit risk to selected customers or counter-parties.

2.5.2 Total Return Swap

A total return swap (also known as Total Rate of Return Swap) is a contract between two counterparties whereby they swap periodic payments for the period of the contract. Typically, one party receives the total return (interest payments plus any capital gains or losses for the payment period) from a specified reference asset, while the other receives a specified fixed or floating cash flow that is not related to the creditworthiness of the reference asset, as with a vanilla Interest rate

swap. The payments are based upon the same notional amount. The reference asset may be any asset, index or basket of assets.

The TRS is simply a mechanism that allows one party to derive the economic benefit of owning an asset without use of the balance sheet, and which allows the other to effectively “buy protection” against loss in value due to ownership of a credit asset.

2.5.3 Credit Default Swap

The credit default swap or CDS has become the cornerstone product of the credit derivatives market. This product represents over thirty percent of the credit derivatives market. A credit default swap, in its simplest form (the unfunded single name credit default swap) is a bilateral contract between a protection buyer and a protection seller.

2.5.4 CDS Options

A CDS option represents the right but not the obligation to buy or sell protection on an underlying reference credit at a specified strike spread at a specified date in the future. There are two types of options that can be bought or sold:

- The right to buy credit protection (payer option)
- The right to sell protection (receiver option)

CDS options can also have a special feature called a knock-out clause. A knock-out clause specifies that if a credit event occurs before the option's expiration date, the option is invalidated (i.e., the option may not be exercised after a credit event occurs).

Check your progress 4

1. Which is not a type of derivative?

- a. futures
- b. forwards
- c. options
- d. currency

2.6 Funded Credit Derivative Products

Credit linked notes

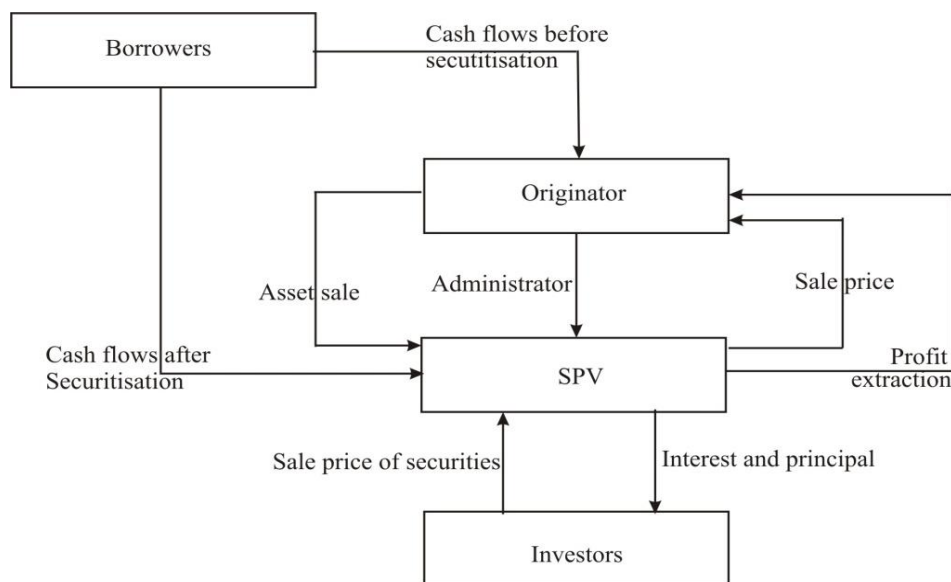


Fig 2.7 Credit linked notes

In this example you can see the coupons from the bank's portfolio of loans is passed to the SPV which uses the cash flow to service the credit linked notes.

A credit linked note is a note whose cash flow depends upon a credit event, which can be a default, credit spread, or rating change. The definition of the relevant credit events must be negotiated by the parties to the note.

A CLN in effect combines a credit-default swap with a regular note (with coupon, maturity, redemption). Given its regular-note features, a CLN is an on-balance-sheet asset, in contrast to a CDS.

Typically, an investment fund manager will purchase such a note to hedge against possible down grades, or loan defaults.

Numerous different types of credit linked notes (CLNs) have been structured and placed in the past few years. Here we are going to provide an overview rather than a detailed account of these instruments.

The most basic CLN consists of a bond, issued by a well-rated borrower, packaged with a credit default swap on a less creditworthy risk.

For example, a bank may sell some of its exposure to a particular emerging country by issuing a bond linked to that country's default or convertibility risk. From the bank's point of view, this achieves the purpose of reducing its exposure to that risk, as it will not need to reimburse all or part of the note if a credit event occurs. However, from the point of view of investors, the risk profile is different

from that of the bonds issued by the country. If the bank runs into difficulty, their investments will suffer even if the country is still performing well.

The credit rating is improved by using a proportion of government bonds, which means the CLN investor receives an enhanced coupon.

Through the use of a credit default swap, the bank receives some recompense if the reference credit defaults.

There are several different types of securitized product, which have a credit dimension. CLN is a generic name related to any bond whose value is linked to the performance of a reference asset, or assets. This link may be through the use of a credit derivative, but does not have to be.

- **Credit Linked Notes CLN:** Credit Linked Note is a generic name related to any bond whose value is linked to the performance of a reference asset, or assets. This link may be through the use of a credit derivative, but does not have to be.
- **Collateralized Debt Obligation CDO:** Generic term for a bond issued against a mixed pool of assets - There also exists CDO-squared (CDO^2) where the underlying assets are CDO tranches.
- **Collateralized Bond Obligations CBO:** Bond issued against a pool of bond assets or other securities. It is referred to in a generic sense as a CDO
- **Collateralized Loan Obligations CLO:** Bond issued against a pool of bank loan. It is referred to in a generic sense as a CDO

CDO refers either to the pool of assets used to support the CLNs or, confusingly, to the CLNs themselves.

2.6.1 Collateralized Debt Obligations (CDO)

Collateralized debt obligations or CDOs are a form of credit derivative offering exposure to a large number of companies in a single instrument. This exposure is sold in slices of varying risk or subordination - each slice is known as a tranche.

In a cash flow CDO, the underlying credit risks are bonds or loans held by the issuer. Alternatively in a synthetic CDO, the exposure to each underlying company is a credit default swap. A synthetic CDO is also referred to as CSO.

Check your progress 5

1. The Credit Linked Note is generic name of:
 - a. bond
 - b. equity
 - c. future
 - d. options

2.7 Equity Derivative

In finance, an equity derivative is a class of financial instruments whose value is at least partly derived from one or more underlying equity securities. Market participants trade equity derivatives in order to transfer or transform certain risks associated with the underlying security. Options are by far the most common equity derivative; however there are many other types of equity derivatives that are actively traded.

1) Equity Options

Equity options are the most common type of equity derivative. They provide the right, but not the obligation to trade a quantity of stock at a set price at a future time.

2) Warrants

In finance, a warrant is a security that entitles the holder to buy stock of the company that issued it at a specified price, which is much higher than the stock price at time of issue. Warrants are frequently attached to bonds or preferred stock as a sweetener, allowing the issuer to pay lower interest rates or dividends. They can be used to enhance the yield of the bond, and make them more attractive to potential buyers.

3) Convertible Bonds

Convertible bonds are bonds that can be converted into shares of stock in the issuing company, usually at some pre-announced ratio. It is a hybrid security with debt- and equity-like features. It can be used by investors to obtain the upside of equity-like returns while protecting the downside with regular bond-like coupons.

4) Equity Futures, Options and Swaps

Investors can gain exposure to the equity markets using futures, options and swaps. These can be done on single stocks, a customized basket of stocks or on an index of stocks. These equity derivatives derive their value from the price of the underlying stock or stocks.

5) Stock Market Index Futures

Stock market index futures are futures contracts used to replicate the performance of an underlying stock market index. They can be used for hedging against an existing equity position, or speculating on future movements of the index. Indices for futures include well-established indices such as S and P, FTSE, DAX, CAC40 and other G12 country indices. Indices for OTC products are broadly similar, but offer more flexibility.

6) Equity Basket Derivatives

Equity basket derivatives are futures, options or swaps where the underlying is a non-index basket of shares. They have similar characteristics to equity index derivatives, but are always traded OTC, as the basket definition is not standardized in the way that an equity index is.

7) Single-Stock Futures

Single-stock futures are exchange-traded futures contracts based on an individual underlying security rather than a stock index. Their performance is similar to that of the underlying equity itself, although as futures contracts they are usually traded with greater leverage. Another difference is that holders of long positions in single stock futures typically do not receive dividends and holders of short positions do not pay dividends. Single-stock futures may be cash-settled or physically settled by the transfer of the underlying stocks at expiration, although in the United States only physical settlement is used.

8) Equity Index Swaps

An equity index swap is an agreement between two parties to swap two sets of cash flows on predetermined dates for an agreed number of years. The cash flows will be an equity index value swapped, for instance, with LIBOR. Swaps can be considered as being a relatively straight forward way of gaining exposure to an asset class you require. They can also be relatively cost efficient.

Exchange-Traded Derivatives

Other examples of equity derivative securities include exchange-traded funds and Intellidexes.

Derivatives market

Derivative (finance)

Options Terms: Strike price • Expiration • Open interest • Pin risk

Vanilla options: Option styles • Call • Put • Warrants • Fixed income • Employee stock option • FX

Exotic options: Asian • Lookback • Barrier • Binary • Swaption • Mountain range

Options strategies: Covered call • Naked put • Collar • Straddle • Strangle • Butterfly

Options spreads: Bull spread • Bear spread • Calendar spread • Vertical spread • Debit spread • Credit spread

Valuation of options: Moneyness • Option time value • Put-call parity • Black-Scholes • Black • Binomial Swaps • Interest rate swap • Total return swap • Equity swap • Credit default swap • Forex swap • Currency swap • Constant maturity swap • Basis swap • Volatility swap • Variance swap

Other derivatives: • Credit derivative • Equity derivative • Interest rate derivative • Inflation derivatives

Check your progress 6

1. _____ is a security which allows the holder to buy stock of company which is allotted at particular price.

a. bonds

c. equity

b. warrant

d. options

2.8 Interest Rate Derivative

An interest rate derivative is a derivative where the underlying asset is the right to pay or receive a (usually notional) amount of money at a given interest rate.

The interest rate derivatives market is the largest derivatives market in the world. Market observers estimate that \$60 trillion dollars by notional value of interest rate derivatives contract had been exchanged by May 2004. Measuring the size of the market is difficult because trading in the interest rate derivative market is largely done over-the-counter. According to the International Swaps and

Derivatives Association, 80% of the world's top 500 companies as of April 2003 used interest rate derivatives to control their cash flows. This compares with 75% for foreign exchange options, 25% for commodity options and 10% for stock options.

2.8.1 Types

These are the basic building blocks for most interest rate derivatives and can be described as vanilla (simple, basic derivative structures) products:

- Interest rate swap (fixed-for-floating)
- Interest rate cap or Floor
- Interest rate swaption
- Bond option
- Forward rate agreement
- Interest rate future

Building off of these structures are more exotic interest rate derivatives such as:

- Range accrual Swaps/Notes/Bonds
- In-arrears Swap
- Constant maturity or constant treasury swap
- Interest rate swap based upon two floating interest rates

As well as non-European variants of the interest rate swaptions such as Bermudan or American-style swaptions which offer the holder the option of exercise times other than at the option's maturity.

These structures are popular for investors with customized cashflows needs or specific views on the interest rate movements (such as volatility movements or simple directional movements).

Check your progress 7

1. Which among the following is not serving as basic building blocks for interest rate derivative?
 - a. Interest rate swap
 - b. Interest rate cap
 - c. Interest rate equity
 - d. Bond option

2.9 Inflation Derivatives

Inflation derivatives refer to over-the-counter and exchange-traded derivatives that are used to transfer inflation risk from one counter party to another. Typically, real rate swaps also come under this bracket, such as asset swaps of inflation indexed bonds (commonly referred to as Treasury Inflation Protected Securities, TIPS, and/or inflation linked fixed income). Inflation swaps are the linear form of these derivatives. They can take a similar form to fixed versus floating interest rate swaps (which are the derivative form for fixed rate bonds), but use a real rate coupon versus floating, but also pay a redemption pickup at maturity (i.e. the derivative form of inflation indexed bonds).

2.9.1 Inflation-Indexed Bond

Inflation-indexed bonds (also known as linkers) are bonds whose principal are indexed to inflation, cutting out inflation risk. The first known inflation-indexed bond was issued by the Massachusetts Bay Company in 1780. The market has grown dramatically since the British government began issuing inflation-linked Gilts in 1981. Today, the asset class comprises over \$500 Billion of the international debt market. The market primarily consists of sovereign debt, with privately issued inflation-linked bonds constituting a small portion of the market.

A) Structure

Inflation-indexed bonds pay a coupon that is equivalent to the sum of the increase in an inflation index and the real coupon rate. The relationship between coupon payments, breakeven inflation and real interest rates is given by the Fisher equation. A rise in coupon payments is a result of an increase in inflation expectations, real rates, or both.

A common misconception about these bonds is that the interest rate changes with inflation. What actually happens is that the underlying principal of the bond changes, which results in a higher interest payment when multiplied by the same rate. For example, if the coupon of a bond was 5%, and the underlying principal of the bond was 100 units, the bond would pay 5 units, assuming annual payments. If the inflation index then increased by 10%, the principal of the bond would then increase to 110 units. This is multiplied by the same coupon rate of 5%, which results in an interest payment of 5.5 units. The only known exception to this is the Australian Capital Indexed Bond, which also adjusts the interest rate.

B) Global Issuance

Best known in the U.S. are Treasury Inflation-Protected Securities (TIPS), a type of US Treasury security. The UK also issues Index-linked Gilts. The Australian government stopped issuing the Capital Indexed Bond in 2003. The Australian bond was unique among inflation-linked bonds in that the rate of interest and the principal were both linked to inflation. France, Canada, Greece, Italy, Japan, and Sweden also issue inflation-indexed bonds.

Country	Issue	Issuer	Inflation Index
United States	Treasury Inflation-Protected Securities (TIPS)	US Treasury	US Consumer Price Index
United Kingdom	Inflation-linked Gilt (ILG)		
Australia	Treasury Indexed Bonds	Reserve Bank of Australia	
France	OAT <i>€</i> i	Agency France Trésor	HICP
Canada	Real Return Bond (RRB)		Canada All-Items Consumer Price Index
Greece			
Italy			
Japan			
Sweden			Swedish CPI

C) Inflation-Indexed Bond Indices

Inflation-indexed bond indices include Barclays World Government Inflation-Linked Index.

i) Open-End Fund

A type of mutual fund where there are no restrictions on the amount of shares the fund will issue. If demand is high enough, the fund will continue to issue shares no matter how many investors there are. Open-end funds also buy back shares when investors wish to sell.

Most of the mutual funds available in the marketplace are open-end funds. Open-end funds are generally managed actively and are priced according to their net asset value (NAV). Open-end funds are wide-ranging. Some Open-end funds are more conservative and provide consistent returns with low risk, and some are more aggressive in seeking to make capital gains through constant trading.

Type of Investment Company that sells new shares to the public and stands ready to buy back (redeem) its shares at the market price when investors wish to sell. Open-end investment companies are better known to the public as Mutual Funds and are so named because these companies are continually creating new shares when they sell securities. Consequently, the Net Asset Value of mutual funds increases or decreases as investors buys shares or redeems them. Funds typically invest in a variety of financial instruments, including common stocks, corporate bonds, tax exempt bonds, and short-term money market instruments. Contrast with Closed-End Fund.

Meaning #1: a regulated investment company that regularly sells and redeems its shares

Synonyms: mutual fund, open-end investment company

An open-end(ed) fund is a collective investment which can issue and redeem shares at any time. An investor can purchase shares in such funds directly from the mutual fund company, or through a brokerage house.

Open-ended funds are available in most developed countries; however terminology and operating rules vary. For example in the U.S. they are called mutual funds, in the UK they are either unit trusts or OEICs (Open-Ended Investment Companies) and in most of Europe they are SICAVs.

- **Definition**

An open-ended fund is equitably divided into shares (or units) which vary in price in direct proportion to the variation in value of the fund's net asset value. Each time money is invested new shares or units are created to match the prevailing share price; each time shares are redeemed the assets sold match the

prevailing share price. In this way there is no supply or demand created for shares and they remain a direct reflection of the underlying assets.

- **Fees**

There may be a percentage charge levied on purchase or sale of shares--in this case, the fund is a “load fund”; if there are no such charges levied, the fund is “no-load”. However, brokerages may charge commissions for the purchase of even no-load funds, and there might also be other fees associated with no-load funds, such as yearly maintenance fees in IRA accounts and redemption fees designed to discourage shareholders from jumping in and out of funds in an attempt at market timing.

- **Active Management**

Most open-end funds are actively managed, meaning that a portfolio manager picks the securities to buy, although index funds are now growing in popularity. Index funds are open-end funds that attempt to replicate an index, such as the S and P 500, and therefore do not allow the manager to actively choose securities to buy. These fees are commonly referred to as 12b-1 fees in U.S.

- **Net Asset Value**

The price per share, or NAV (net asset value), is calculated by dividing the fund's assets minus liabilities by the number of shares outstanding. This is usually calculated at the end of every trading day.

Hedge Funds

Hedge funds are typically open-ended and actively managed. However, their NAV is typically calculated monthly.

Closed-End Fund

A closed-end fund is a publicly traded investment company that raises a fixed amount of capital through an initial public offering (IPO). The fund is then structured, listed and traded like a stock on a stock exchange.

It is also known as a “closed-end investment” or “closed-end mutual fund.”

Despite the name similarities, a closed-end fund has little in common with a conventional mutual fund, which is technically known as an open-end fund.

The price of a share in a closed-end fund is determined partially by the value of the investments in the fund, and partially by the premium (or discount) placed on it by the market. The total value of all the securities in the fund divided by the number of shares in the fund is called the net asset value, often abbreviated NAV.

The market price of a fund share is often higher or lower than the NAV: when the fund's share price is higher than NAV it is said to be selling at a premium; when it is lower, at a discount to the NAV.

Distinguishing Features

Some characteristics that distinguish a closed-end fund from an ordinary open-end mutual fund are that:

1. It's closed to new capital after it begins operating, and
2. Its shares (typically) trade on stock exchanges rather than being redeemed directly by the fund.
3. Its shares can therefore be traded during the market day at any time. An open-end fund can usually be traded only at the closing price at the end of the market day.
4. A CEF usually has a premium or discount. An open-end fund sells at its NAV (except for sales charges).

Since closed-end funds are traded as stock, a customer trading them will pay a brokerage commission similar to one paid when trading stock (as opposed to commissions on open-ended mutual funds where the commission will vary based on the share class chosen and the method of purchasing the fund). In other words, closed-end funds typically do not have sales-based share classes where the commission and annual fees vary between them. The main exception is loan-participation funds.

Exchange Traded

Closed-end fund shares trade continually at whatever price the market will support. They also qualify for advanced types of orders such as limit orders and stop orders.

Closed-end funds trade on exchanges and in that respect they are like exchange-traded funds (ETFs), but there is important difference between these two kinds of security. The price of a closed-end fund is completely determined by the valuation of the market, and this price often diverges substantially from the NAV of the fund assets.

Exchange-Traded Fund

Exchange-traded funds (or ETFs) are Open Ended investment companies that can be traded at any time throughout the course of the day. Typically, ETFs try to replicate a stock market index such as the S and P 500 (e.g. SPY) or the

Hang Seng Index, a market sector such as energy or technology, or a commodity such as gold or petroleum; However, as ETFs proliferated in 2006 from under one hundred in number to almost four hundred by the end of the year, the trend has been away from these simpler index-tracking funds to Intellidexes and other proprietary groupings of stocks.

The legal structure and makeup varies around the world, however the major common features include:

- An exchange listing and ability to trade continually.
- They are index-linked rather than actively managed.
- Through dynamic and quantitative strategies, these can be dynamic rather than static indexing strategies.
- The ability to handle contributions and redemptions on an in-kind basis (typically in large blocks of shares only).
- Their 'value' (but not necessarily the price at which they trade—they can trade at a 'premium' or 'discount' to the 'underlying' assets' value) derives from the value of the 'underlying' assets comprising the fund.

These qualities provide ETFs with some significant advantages compared with traditional open-ended collective investments. The ETF structure allows for a diversified, low cost, low turnover index investment. This appeal to both institutional and retail investors both for long term holding and for selling short and hedging strategies.

Check your progress 8

1. When was the first inflation indexed bond issued by Massachusetts Bay Company?
a. 1800
b. 1780
c. 1850
d. 1900

2.10 Index Basis

Many current U.S. ETFs are based on some index; for example, SPDRs (Standard and Poor's Depository Receipts, or "Spiders") (AMEX: SPY) are based on the S and P 500 index. The index is generally determined by an independent

company; for example, Spiders are run by State Street, while the S and P 500 are calculated by Standard and Poor's. Sometimes, a proprietary index is used.

Although the SEC states that an ETF is “a type of Investment Company whose investment objective is to achieve the same return as a particular market index,” this is no longer reality. The development of investment structures has progressed more quickly than the SEC's website.

A series of ETFs introduced by Pro Shares in 2006 - 2007 no longer follow the traditional definition. These funds, while correlating to the performance of the S and P 500, NASDAQ 100, DJIA, and S and P 400 Midcap, do not attempt to merely achieve the same return as the underlying index. These forty funds attempt to either achieve the daily performance of the designated benchmark times two, times negative one, or times negative two. They are ETFs with integrated leverage.

Another example of an innovative ETF that has broken the classic mold is the oil futures ETF: USO. This ETF tracks the performance of the Western Texas Intermediate light sweet crude. This is not a benchmark, but a traded commodity.

Rydex has taken a different direction and worked with S and P to create new, equal-weight benchmarks for their proprietary benchmarks. These “benchmarks” are rebalanced quarterly.

Creation and Redemption of Shares

Rather than the fund manager dealing directly with shareholders, parties who have entered into a contract with the fund, such as institutional investors, and called Authorized Participants (APs) will create a basket of shares replicating or approximating the index, and deliver them to the fund in exchange for ETF shares. A basket, or creation unit, consists of anywhere from 10,000 ETF shares to 600,000 ETF shares.

ETF shares are then sold and resold freely among investors on the open market. If an investor accumulates a sufficient amount of ETF shares, he can exchange one full creation unit of ETF shares for a basket of the underlying shares of stock. The ETF creation unit is then redeemed and the underlying stocks are delivered out of the fund.

One of the advantages of this creation / redemption method for the fund investors is that institutional investors cover the dealing costs in purchasing the required shares to make up the portfolio. One of the reasons they are willing to do this is that they can profit by arbitrage based on the trading price of shares on the secondary market. Shares will trade at a premium to net asset value if demand is

high and at a discount to net asset value if demand is low. These market drivers provide the efficiency for the ETF managers as the bulk buying power of the institutional investors allows them to avoid the expense of mass share creation and deletion.

Actively Managed ETF

People have talked about 'actively managed ETF' for a long time, based somewhat on analogy with mutual funds. Others feel that such a thing is contradictory and nonsensical. Some have sought to bring the much older (and normally actively managed) investment trust class of fund under the ETF umbrella, pointing out the fact that these are also funds that trade on exchanges. Real Estate Investment Trust units also commonly trade on exchanges and have properties similar to an ETF.

ETFs are mainly exchanged 'in-kind'; holdings of ETFs are made available daily. This is felt to be a strength since no one knows more than anyone else about what the fund holds. If holdings were secret, it would be difficult to buy an ETF, since one would not know what shares to transfer; similarly, if one sells and gets the component shares, the holdings would not be secret. This seems to cause problems for an actively managed fund. Similarly, arbitrageurs are less likely to bid aggressively if they don't know what they are buying and selling. All of this is in contrast to mutual funds, which are allowed to keep holdings unknown for many months. Lastly, some people think that owners of ETFs are more sophisticated, therefore more likely to be proponents of indexing (a passive strategy). So it is not immediately obvious who would buy actively managed ETFs.

Usage

Today ETFs present a viable alternative investment option to traditional open-ended mutual funds, especially open-ended index funds. There are many available ETFs that attempt to track all kind of indexes (such as large-cap, mid-cap, small-cap, etc), fixed income, style (such as value and growth), industries, countries, precious metals and other commodities and more are being developed.

ETFs also enable people living outside the United States to participate in US based mutual funds. Traditional open-ended US mutual funds are available only to US residents, whereas anyone in the world can purchase shares in an ETF that trades on the open market.

History

The first ETF was introduced on the Toronto Stock Exchange in 1990.

There are over one hundred ETFs traded on the American Stock Exchange, with more in other countries. ETFs have been gaining popularity ever since they were introduced on the American Stock Exchange in the mid 1990s, beginning with SPY (launched by State Street Global Advisors and tracking the S and P 500) in 1993. ETFs are attractive to investors because they offer the diversification of mutual funds with the features of a stock. The popularity of these funds is likely to increase as new and more innovative ETFs are introduced.

The original ETFs were set up as competitors to open-ended index funds, and subsequent ETFs have usually followed in their footsteps: they typically have very low expense ratios compared to actively managed mutual funds. They also have a lower turnover ratio, which in some jurisdictions can be more tax-favourable.

ETF managers such as BGI and State Street Global Advisors are the current leaders in the ETF industry by assets under management, with 75% of the market.

ETFs vs. open-ended funds

Given that ETFs trade on an exchange, each transaction is subject to the broker's fee. Many mutual funds do not charge such fees. In scenarios where an investor transacts frequently, or for small amounts, these fees for trading ETFs can erode gains and thus make investing in a mutual fund more attractive. However, with the advent of low or no-cost transactions from various brokerages, this advantage of mutual funds over ETFs has been diminished in many cases.

ETF fees also tend to be slightly more transparent than fees for mutual funds. There are no deferred sales charges, or other kickbacks to the dealer. Instead there is a regular MER, and the initial exchange commission, if any, to purchase the ETF.

There are many advantages to ETFs, and these advantages will likely increase over time. Most ETFs have a lower expense ratio than comparable mutual funds. Mutual funds can charge 1% to 3%, or more; index funds are generally lower, while ETFs are almost always in the 0.1% to 1% range. Over the long term, these cost differences can compound into a noticeable difference.

ETFs are more tax-efficient than mutual funds in some jurisdictions. In the U.S., whenever a mutual fund realizes a capital gain that is not balanced by a realized loss, the mutual fund must distribute the capital gains to their

shareholders by the end of the quarter. This can happen when stocks are added to and removed from the index, or when a large number of shares are redeemed (such as during a panic). These gains are taxable to all shareholders, even those who reinvest the gains distributions in more shares of the fund. In contrast, ETFs are not redeemed by holders (instead, holders simply sell their ETF on the stock market, as they would a stock), so that investors generally only realize capital gains when they sell their own shares.

However, there are some potential taxation drawbacks to ETFs in the United States. One argument made in favour of index mutual funds having a tax advantage over ETFs is that ETFs often trade their shares more rapidly to maintain a high cost basis of their underlying shares. This can result in ETF dividends failing to be classified as qualified dividends since the underlying shares don't satisfy the IRS requirements. This can be a substantial drawback since your ordinary tax rate may be significantly higher than the 15% tax charged on qualified dividends.

Perhaps the most important, although subtle, benefit of an ETF is the stock-like features offered. Since ETFs trade on the market, investors can carry out the same types of trades that they can with a stock. For instance, investors can sell short, use a limit order, use a stop-loss order, buy on margin, and invest as much or as little money as they wish (there is no minimum investment requirement). Also, many ETFs have the capability for options (puts and calls) to be written against them. Mutual funds do not offer those features.

For example, an investor in an open-ended fund can only purchase or sell at the end of the day at the mutual fund's closing price. This makes stop-loss orders much less useful for open-ended funds – if your broker even allows them. An ETF is continually priced throughout the day and therefore is not subject to this disadvantage, allowing the user to react to adverse or beneficial market condition on an intraday basis. This stock-like liquidity allows an investor to trade the ETF for cash throughout regular trading hours and often after-hours on ECNs. ETF liquidity varies according to trading volume and liquidity of the underlying securities, but very liquid ETFs such as SPY, DIA, and QQQQ can be traded pre-market and after-hours with reasonably tight spreads. These characteristics can be important for investors concerned with liquidity risk.

A more subtle advantage is that ETFs, like closed-ended funds, are immune from some market timing problems that have plagued open-ended mutual funds. In these timing attacks, large investors trade in and out of an open ended fund quickly, exploiting minor variances in price in order to profit at the expense of the

long-term unit holders. With an ETF (or closed-ended fund) such an operation is not possible--the underlying assets of the fund are not affected by its trading on the market.

Check your progress 9

1. Which among the following indexes is part of ETF?

- | | |
|--------------|-----------------|
| a. large-cap | c. small-cap |
| b. mid-cap | d. all of above |

2.11 Let Us Sum Up

In this unit we have learnt that there are certain options about shot put and shot call options where they differ in case of American and European options. It is found that derivatives are financial instruments whose value is derived from the value of something else which are of two types.

The Inflation and inflation bond and index basis are bonds whose principal are indexed to inflation, cutting out inflation risk. It is seen that the first known inflation indexed bond was issued by Massachusetts Bay Company in 1780.

Further, an ETF is mainly exchanged in-kind with holdings which serve as strength as no one knows more than anyone else about what the fund holds. If holdings were secret, it would be difficult to buy an ETF, since one would not know what shares to transfer; similarly, if one sells and gets the component shares, the holdings would not be secret. This seems to cause problems for an actively managed fund.

There are many trade stock options that are described from point of view of speculator. When they combined with other positions, they can also be used in hedging. There are certain calls and put such as long call, short call, long put and short put strategies. There are simple strategies which combines only a few trades, while more complicated strategies can combine several.

Strategies are often used to engineer a particular risk profile to movements in the underlying security. Selling a straddle (selling both a put and a call at the same exercise price) would give a trader a greater profit than a butterfly if the final stock price is near the exercise price, but might result in a large loss. It is believed that investors have freedom to exercise their options at any point during

the life of contract; they are more valuable than European options which can only be exercised at maturity. American options are rarely exercised early. This is because any option has a non-negative time value and is usually worth more unexercised. Owners who wish to realise the full value of their option will mostly prefer to sell it on, rather than exercise it immediately, sacrificing the time value.

A shout option allows the holder effectively two exercise dates: during the life of the option they can shout to seller that they are locking-in the A swing option gives the purchaser the right to exercise one and only one call or put on any one of a number of specified exercise dates.

2.12 Answer for Check Your Progress

Check your progress 1

Answers: (1-b)

Check your progress 2

Answers: (1-a)

Check your progress 3

Answers: (1-a)

Check your progress 4

Answers: (1-d)

Check your progress 5

Answers: (1-a)

Check your progress 6

Answers: (1-b)

Check your progress 7

Answers: (1-c)

Check your progress 8

Answers: (1-b)

Check your progress 9

Answers: (1-d)

2.13 Glossary

1. **Asset** - This is anything having value owned by an individual, institution or business.
2. **Bond** - It is a type of debt security issued by corporations, government agencies, municipalities and states for issuer to pay bondholder principal amount at maturity.
3. **Market Capitalization** - It is a broad measure of the size or value of a publicly traded company.

2.14 Assignment

Explain Interest rate derivative with example of interest rate Derivatives.

2.15 Activities

Explain trading? What are the basics trades of traded stock options?

2.16 Case Study

What are the indices of inflation indexed Bonds.

2.17 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger. Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly and Brown – Investment Analysis and Portfolio Mgmt. – Thomson Learning, 7/e, 2004

UNIT 3: HEDGE FUND

Unit Structure

- 3.0 Learning Objectives**
- 3.1 Introduction**
- 3.2 Hedge Fund**
- 3.3 Hedge Fund Risk**
- 3.4 Hedge Fund Indices**
- 3.5 Debates and Controversies**
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3.0 Learning Objectives

After learning this unit, you will be able to understand:

- Hedge Fund
- Hedge Fund Risk
- Hedge Fund Indices
- Debates and Controversies

3.1 Introduction

A pooled investment fund, usually a private partnership, which seeks to maximize absolute returns using a broad range of strategies, including unconventional and illiquid investments. Hedge fund risk investing in a hedge fund is considered to be a riskier proposition than investing in a regulated fund, despite the traditional notion of a “hedge” being a means of reducing the risk of a bet or investment. The following are some of the primary reasons for the increased risk.

3.2 Hedge Fund

An aggressively managed portfolio of investments that uses advanced investment strategies such as leverage, long, short and derivative positions in both domestic and international markets with the goal of generating high returns (either in an absolute sense or over a specified market benchmark).

Legally, hedge funds are most often set up as private investment partnerships that are open to a limited number of investors and require a very large initial minimum investment. Investments in hedge funds are illiquid as they often require investors keep their money in the fund for a minimum period of at least one year.

For the most part, hedge funds (unlike mutual funds) are unregulated because they cater to sophisticated investors. In the U.S., laws require that the majority of investors in the fund be accredited. That is, they must earn a minimum amount of money annually and have a net worth of over \$1 million, along with a significant amount of investment knowledge. You can think of hedge funds as mutual funds for the super-rich. They are similar to mutual funds in that investments are pooled and professionally managed, but differ in that the fund has far more flexibility in its investment strategies.

It is important to note that hedging is actually the practice of attempting to reduce risk, but the goal of most hedge funds is to maximize return on investment. The name is mostly historical, as the first hedge funds tried to hedge against the downside risk of a bear market with their ability to short the market (mutual funds generally can't enter into short positions as one of their primary goals). Nowadays, hedge funds use dozens of different strategies, so it isn't accurate to say that hedge funds just “hedge risk”. In fact, because hedge fund managers make speculative investments, these funds can carry more risk than the overall market.

Private investment partnership (for U.S. Investors) or an off-shore investment corporation (for non-U.S. Or tax-exempt investors) in which the general partner has made a substantial personal investment, and whose offering memorandum allows for the fund to take both long and Short Positions, use leverage and derivatives, and invest in many markets. Hedge funds often take large risks on speculative strategies, including Program Trading, Swaps Arbitrage and other Market-Neutral Investing. A fund need not employ all of these tools all of the time; it must merely have them at its disposal. Since hedge funds are not limited to buying securities, they can potentially profit in any market environment, including one with sharply declining prices. Because they move billions of dollars in and out of markets quickly, hedge funds can have a significant impact on the day-to-day trading developments in the stock, bond, and futures markets.

Traditional hedge funds require that 65% of all investors be of the accredited type, defined as an individual or couple who have a net worth of at least \$1 million, or an individual who had income in the previous year of at least \$200,000, or a couple with at least \$300,000 of income in the previous year. In reality, though, an investor needs much more than that.

The funds also require substantial minimum investments that can make it hard even for accredited investors to ante up. Minimums typically range from about \$250,000 to \$10 million. An investor gives up liquidity in hedge funds. They typically have a one-year lock-up for first-time investors. Since 2000, some mutual fund families and mainstream financial services firms have begun offering hedge funds aimed at the semi-affluent retail market, some with minimum investment requirements as low as \$25,000. These are offered as open-end mutual funds or Funds-Of-Funds and as such innovative products as Closed-End Funds that do not trade on exchanges, and usually offer investors the opportunity to sell shares only quarterly or annually. New rules adopted December 2, 2004, amending the Investment Advisers Act of 1940 require hedge fund managers to register as advisers with the Securities and Exchange Commission (SEC).

In finance, a highly speculative, largely unregulated investment device. Originating in the 1950s, the funds “hedge” by offsetting “short” positions (borrowing a security and then selling it at a higher price before repaying the lender) against “long” positions (borrowing money to speculate on undervalued stocks; see hedging; speculation), but not all so-called hedge funds are actively involved in hedging. In general, hedge funds, besides being unregulated, are investment capital funds that are limited to wealthy investors and large institutions, that are structured as partnerships, and that use investment strategies

involving higher risks in an attempt to produce greater financial gains. The fees associated with hedge funds are high, and can reduce the returns to levels in line with investments involving lower risks. Aggressive hedge funds work with highly leveraged securities, often purchased with less than 5% of actual investor capital, with banks covering the balance. Macro hedge funds speculate in currencies of various countries; financial analysts and government officials blamed such funds, including George Soros's Quantum fund, for disrupting the economies of Asian and Latin American countries in 1998. Other funds speculate in gold and other volatile commodities, or simultaneously buy and sell a stock or other financial instrument in two different markets to profit on the difference in value in the two markets (a technique called arbitrage). Funds are classified as U.S. or offshore; U.S. hedge funds are private investment partnerships that generally invest in traded securities. Offshore hedge funds (normally not open to U.S. investors) are mutual fund companies.

Hedge funds came to public view in 1998 when Long-Term Capital Management (a U.S. fund) nearly collapsed, requiring a \$3.5 billion bailout organized by the Federal Reserve Bank of New York and paid by private banks. The bailout led to a number of U.S. and international investigations into hedge funds and calls for greater regulation and scrutiny. An attempt by the Securities and Exchange Commission in 2004 to require hedge funds to register with it was overturned by the federal courts. In 2006 another major U.S. hedge fund collapse, that of Amaranth Advisors, cost investors more than \$6 billion. By 2007 the assets of such funds were estimated at more than \$1 trillion; in February of that year the Bush administration and U.S. financial regulators rejected increasing the regulation of the funds and instead recommended that persons, institutions, and banks engage in sound practices before investing in or lending to a hedge fund.

An investment partnership or mutual fund which uses selling short to hedge long positions in stocks. If stock selection is correct, the stocks sold short decline more in a falling market than the stock owned, and the stocks owned appreciate more in a rising market than the stocks sold short. The goal is to generate trading and investment profits no matter what the direction of the general market. Hedge funds may borrow money to increase their leverage.

Since hedge fund assets can run into many billions of dollars and will usually be multiplied by leverage, their sway over markets, whether they succeed or fail, is potentially substantial and there is a continuing debate over whether they should be more thoroughly regulated.

Check your progress 1

1. Hedge funds are similar to:

- | | |
|-----------------|----------------|
| a. equities | c. commodities |
| b. mutual funds | d. bonds |

3.3 Hedge Fund Risk

Investing in a hedge fund is considered to be a riskier proposition than investing in a regulated fund, despite the traditional notion of a “hedge” being a means of reducing the risk of a bet or investment. The following are some of the primary reasons for the increased risk:

- 1) **Leverage** - in addition to money put into the fund by investors, a hedge fund will typically borrow money, with certain funds borrowing sums many times greater than the initial investment. Where a hedge fund has borrowed \$9 for every \$1 invested, a loss of only 10% of the value of the investments of the hedge fund will wipe out 100% of the value of the investor's stake in the fund, once the creditors have called in their loans. At the beginning of 1998, shortly before its collapse, Long Term Capital Management had borrowed over \$26 for each \$1 invested.
- 2) **Short selling** - due to the nature of short selling, the losses that can be incurred on a losing bet are theoretically limitless, unless the short position directly hedges a corresponding long position. Therefore, where a hedge fund uses short selling as an investment strategy rather than as a hedging strategy it can suffer very high losses if the market turns against it.
- 3) **Appetite for risk** - hedge funds are culturally more likely than other types of fund to take on underlying investments that carry high degrees of risk, such as high yield bonds, distressed securities and collateralized debt obligations based on sub-prime mortgages.
- 4) **Lack of transparency** - hedge funds are secretive entities. It can therefore be difficult for an investor to assess trading strategies, diversification of the portfolio and other factors relevant to an investment decision.
- 5) **Lack of regulation** - hedge funds are not subject to the oversight of sophisticated financial regulators, and therefore some may carry undisclosed structural risks.

Investors in hedge funds are willing to take these risks because of the corresponding rewards. Leverage amplifies profits as well as losses; short selling opens up new investment opportunities; riskier investments typically provide higher returns; secrecy helps to prevent imitation by competitors; and being unregulated reduces costs and allows the investment manager more freedom to make decisions on a purely commercial basis.

US Regulation

The typical public investment company in the United States is required to be registered with the U.S. Securities and Exchange Commission (SEC). Mutual funds are the most common type of registered investment companies. Aside from registration and reporting requirements, investment companies are subject to strict limitations on short-selling and the use of leverage. There are other limitations and restrictions placed on public investment company managers, including the prohibition on charging incentive or performance fees.

Although hedge funds fall within the statutory definition of an investment company, the limited-access, private nature of hedge funds permits them to operate pursuant to exemptions from the registration requirements. The two major exemptions are set forth in Sections 3(c) 1 and 3(c) 7 of the Investment Company Act of 1940. Those exemptions are for funds with fewer than 100 investors (a “3(c) 1 Fund”) and funds where the investors are “qualified purchasers” (a “3(c) 7 Fund”). A qualified purchaser is an individual with over US\$5,000,000 in investment assets. (Some institutional investors also qualify as accredited investors or qualified purchasers.) A 3(c) 1 Fund cannot have more than 100 investors, while a 3(c) 7 Fund can have an unlimited number of investors. Both types of funds can charge performance or incentive fees.

In order to comply with 3(c) (1) or 3(c) (7), hedge funds are sold via private placement under the Securities Act of 1933. Thus interests in a hedge fund cannot be offered or advertised to the general public, and are normally offered under Regulation D. Although it is possible to have non-accredited investors in a hedge fund, the exemptions under the Investment Company Act, combined with the restrictions contained in Regulation D, effectively require hedge funds to be offered solely to accredited investors. An accredited investor is an individual with a minimum net worth of US \$5,000,000 or, alternatively, a minimum income of US\$200,000 in each of the last two years and a reasonable expectation of reaching the same income level in the current year.

The regulatory landscape for Investment Advisors is changing, and there have been attempts to register hedge fund investment managers. There are

numerous issues surrounding these proposed requirements. One issue of importance to hedge fund managers is the requirement that a client who is charged an incentive fee must be a “qualified client” under Advisers Act Rule 205-3. To be a qualified client, an individual must have US\$750,000 in assets invested with the adviser or a net worth in excess of US\$1.5 million, or be one of certain high-level employees of the investment adviser.

For the funds, the trade-off of operating under these exemptions is that they have fewer investors to sell to, but they have few government-imposed restrictions on their investment strategies. The presumption is that hedge funds are pursuing more risky strategies, which may or may not be true depending on the fund, and that the ability to invest in these funds should be restricted to wealthier investors who are presumed to be more sophisticated and who have the financial reserves to absorb a possible loss.

In December 2004, the SEC issued a rule change that required most hedge fund advisers to register with the SEC by February 1, 2006, as investment advisers under the Investment Advisers Act. The requirement, with minor exceptions, applied to firms managing in excess of US\$25,000,000 with over 15 investors. The SEC stated that it was adopting a “risk-based approach” to monitoring hedge funds as part of its evolving regulatory regimen for the burgeoning industry. The rule change was challenged in court by a hedge fund manager, and in June 2006, the U.S. Court of Appeals for the District of Columbia overturned it and sent it back to the agency to be reviewed. See *Goldstein v. SEC*.

Although the SEC is currently examining how it can address the Goldstein decision, commentators have stated that the SEC currently has neither the staff nor expertise to comprehensively monitor the estimated 8,000 U.S. and international hedge funds. See *New Hedge Fund Advisor Rule*. One of the Commissioners, Roel Campos, has said that the SEC is forming internal teams that will identify and evaluate irregular trading patterns or other phenomena that may threaten individual investors, the stability of the industry, or the financial world. “It’s pretty clear that we will not be knocking on [hedge fund] doors very often,” Campos told several hundred hedge fund managers, industry lawyers and others. And even if it did, “the SEC will never have the degree of knowledge or background that you do.”

In February 2007, the President’s Working Group on Financial Markets rejected further regulation of hedge funds and said that the industry should instead follow voluntary guidelines.

Comparison to Private Equity Funds

Hedge funds are similar to private equity funds in many respects. Both are lightly regulated, private pools of capital that invest in securities and compensate their managers with a share of the fund's profits. Most hedge funds invest in relatively liquid assets, and permit investors to enter or leave the fund, perhaps requiring some months' notice. Private equity funds invest primarily in very illiquid assets such as early-stage companies and so investors are "locked in" for the entire term of the fund. Hedge funds often invest in private equity companies' acquisition funds.

Between 2004 and February 2006 some hedge funds adopted 25 month lock-up rules expressly to exempt themselves from the SEC's new registration requirements and cause them to fall under the registration exemption that had been intended to exempt private equity funds.

Comparison to U.S. Mutual Funds

Like hedge funds, mutual funds are pools of investment capital (i.e., money people want to invest). However, there are many differences between the two, including:

- Mutual funds are regulated by the SEC, while hedge funds are not
- A hedge fund investor must be an accredited investor with certain exceptions (employees, etc.)
- Mutual funds must price and be liquid on a daily basis

Some hedge funds that are based offshore report their prices to the Financial Times, but for most there is no method of ascertaining pricing on a regular basis. Additionally, mutual funds must have a prospectus available to anyone that requests them (either electronically or via US postal mail), and must disclose their asset allocation quarterly, while hedge funds do not have to abide by these terms.

Hedge funds also ordinarily do not have daily liquidity, but rather "lock up" periods of time where the total returns are generated (net of fees) for their investors and then returned when the term ends, through a pass through requiring CPAs and US Tax W-forms. Hedge fund investors tolerate these policies because hedge funds are expected to generate higher total returns for their investors versus mutual funds.

Recently, however, the mutual fund industry has created products with features that have traditionally only been found in hedge funds.

Mutual funds have appeared which utilize some of the trading strategies noted above. Grizzly Short Fund (GRZZX), for example, is always net short, while Arbitrage Fund (ARBFX) specializes in merger arbitrage. Such funds are SEC regulated, but they offer hedge fund strategies and protection for mutual fund investors.

Also, a few mutual funds have introduced performance-based fees, where the compensation to the manager is based on the performance of the fund. However, under Section 205(b) of the Investment Advisers Act of 1940, such compensation is limited to so-called “fulcrum fees”. Under these arrangements, fees can be performance-based so long as they increase and decrease symmetrically.

For example, the TFS Capital Small Cap Fund (TFSSX) has a management fee that behaves, within limits and symmetrically, similarly to a hedge fund “0 and 50” fee: A 0% management fee coupled with a 50% performance fee if the fund outperforms its benchmark index. However, the 125 bp base fee is reduced (but not below zero) by 50% of underperformance and increased (but not to more than 250 bp) by 50% of our performance.

Offshore Regulation

Many offshore centres are keen to encourage the establishment of hedge funds. To do this they offer some combination of professional services, a favourable tax environment, and business-friendly regulation. Major centers include Cayman Islands, Dublin, Luxembourg, British Virgin Islands and Bermuda. The Cayman Islands have been estimated to be home to about 75% of world’s hedge funds; with nearly half the industries estimated \$1.225 trillion AUM

Hedge funds have to file accounts and conduct their business in compliance with the requirements of these offshore center’s. Typical rules concern restrictions on the availability of funds to retail investors (Dublin), protection of client confidentiality (Luxembourg) and the requirement for the fund to be independent of the fund manager.

Many offshore hedge funds, such as the Soros funds, are structured as mutual funds rather than as limited partnerships.

Check your progress 2

1. What are the types of risk involved with hedge fund?
 - a. leverage
 - b. short selling
 - c. lack of transparency
 - d. all of these

3.4 Hedge Fund Indices

There are a number of indices that track the hedge fund industry. These indices come in two types, Investable and Non-investable, both with substantial problems. There are also new types of tracking product launched by Goldman Sachs and Merrill Lynch, “clone indices” that aim to replicate the returns of hedge fund indices without actually holding hedge funds at all.

Investable indices are created from funds that can be bought and sold, and only Hedge Funds that agree to accept investments on terms acceptable to the constructor of the index are included. Invest ability is an attractive property for an index because it makes the index more relevant to the choices available to investors in practice, and is taken for granted in traditional equity indices such as the S and P 500 or FTSE 100. However, such indices do not represent the total universe of hedge funds and may under-represent the more successful managers, who may not find the index terms attractive. Fund indexes include Barclay Hedge, Hedge Fund Research, Eureka hedge Indices, CSFB Tremont and FTSE Hedge.

The index provider selects funds and develops structured products or derivative instruments that deliver the performance of the index, making investable indices similar in some ways to fund of hedge funds’ portfolios.

Non-investable indices are indicative in nature, and aim to represent the performance of the universe of hedge funds using some measure such as mean, median or weighted mean from a hedge fund database. There are diverse selection criteria and methods of construction, and no single database captures all funds. This leads to significant differences in reported performance between different databases.

Non-investable indices inherit the databases' shortcomings in terms of scope and quality of data. Funds’ participation in a database is voluntary, leading to “self-reporting bias” because those funds that choose to report may not be typical of funds as a whole. For example, some do not report because of poor results or

because they have already reached their target size and do not wish to raise further money.

The short lifetimes of many hedge funds means that there are many new entrants and many departures each year, which raises the problem of “survivorship bias”. If we examine only funds that have survived to the present, we will overestimate past returns because many of the worst-performing funds have not survived, and the observed association between fund youth and fund performance suggests that this bias may be substantial. As the HFR and CISDM databases began in 1994, it is likely that they will be more accurate over the period 1994/2000 than the CSFB database, which only began in 2000.

When a fund is added to a database for the first time, all or part of its historical data is recorded ex-post in the database. It is likely that funds only publish their results when they are favourable, so that the average performances displayed by the funds during their incubation period are inflated. This is known as “instant history bias” or “backfill bias”.

In traditional equity investment, indices play a central and unambiguous role. They are widely accepted as representative, and products such as futures and ETFs provide liquid access to them in most developed markets. However, among hedge funds no index combines these characteristics. Investable indices achieve liquidity at the expense of representativeness. Non-investable indices are representative, but their quoted returns may not be available in practice. Neither is wholly satisfactory.

Check your progress 3

1. Which doesn't come under Fund Index?

- a. Barclay Hedge
- b. Hedge Fund Research
- c. FTSE 100
- d. Eureka hedge Indices

3.5 Debates and Controversies

1) Predatory Behaviour

Hedge funds are often described as predatory, seeking to profit off the vulnerability of nations or corporations. For example, some commentators, including German Vice Chancellor Franz Muentefering have referred to the hedge funds as “locusts” (Heuschrecken,), while others such as Japan's financial services minister have called them “piranhas,” or, as in the case of UK Prime Minister Gordon Brown, “vultures.” There have been allegations that hedge funds were a significant factor in causing the 1997 Asian Financial Crisis, although the National Bureau of Economic Research denies that this was the case. In September, 2007, a noted hedge fund manager told The Times that rival hedge funds had “reaped £1 billion in profits” from the collapse of Northern Rock.

Privacy issues

As private, lightly regulated partnerships, hedge funds do not have to disclose their activities to third parties. This is in contrast to a fully regulated mutual fund (or unit trust) which will typically have to meet regulatory requirements for disclosure. An investor in a hedge fund usually has direct access to the investment advisor of the fund, and may enjoy more personalised reporting than investors in retail investment funds. This may include detailed discussions of risks assumed and significant positions. However, this high level of disclosure is not available to non-investors, contributing to hedge funds' reputation for secrecy.

Restrictions on marketing and the lack of regulation is that there are no official hedge fund statistics. An industry consulting group, HFR (hfr.com), reported at the end of the second quarter 2003 that there are 5,660 hedge funds worldwide managing \$665 billion. To put that in perspective, at the same time the US mutual fund sector held assets of \$7.818 trillion (according to the Investment Company Institute). Market capacity

Analysis of the rather disappointing hedge fund performance in 2004 and 2005 called into question the alternative investment industry's value proposition. Alpha may have been becoming rarer for two related reasons. First, the increase in traded volume may have been reducing the market anomalies that are a source of hedge fund performance. Second, the remuneration model is attracting more and more managers, which may dilute the talent available in the industry.

However, the market capacity effect has been questioned by the EDHEC Risk and Asset Management Research Centre through a decomposition of hedge fund returns between pure alpha, dynamic betas, and static betas. While pure

alpha is generated by exploiting market opportunities, the dynamic betas depend on the manager's skill in adapting the exposures to different factors, and these authors claim that these two sources of return do not exhibit any erosion. This suggests that the market environment (static betas) explains a large part of the poor performance of hedge funds in 2004 and 2005.

2) Systematic Risk

Hedge funds came under heightened scrutiny as a result of the failure of Long-Term Capital Management (LTCM) in 1998, which necessitated a bailout coordinated by the U.S. Federal Reserve. Critics have charged that hedge funds pose systemic risks highlighted by the LTCM disaster.

The ECB (European Central Bank) has issued a warning on hedge fund risk for financial stability and systemic risk: "the increasingly similar positioning of individual hedge funds within broad hedge fund investment strategies is another major risk for financial stability which warrants close monitoring despite the essential lack of any possible remedies. This risk is further magnified by evidence that broad hedge fund investment strategies have also become increasingly correlated, thereby further increasing the potential adverse effects of disorderly exits from crowded trades."

The Times wrote about this review: "In one of the starkest warnings yet from an official institution over the role of the burgeoning but secretive industry, the ECB sounded a note of alarm over the possible repercussions from any collapse of a hedge fund, or group of funds."

However, the ECB statement itself has been criticized by a part of the financial research community. These arguments are developed by the EDHEC Risk and Asset Management Research Centre: The main conclusions of the study are that the ECB article's conclusion of a risk of disorderly exits from crowded trades is based on mere speculation. While the question of systemic risk is of importance, we do not dispose of enough data to reliably address this question at this stage, it would be worthwhile for financial regulators to work towards obtaining data on hedge fund leverage and counterparty credit risk. Such data would allow a reliable assessment of the question of systemic risk, and besides evaluating potential systemic risk, it should be recognised that hedge funds play an important role as providers of liquidity and diversification.

The potential for systemic risk was highlighted by the near-collapse of two Bear Stearns hedge funds in June 2007. The funds invested in mortgage-backed securities. The funds' financial problems necessitated an infusion of cash into one

of the funds from Bear Stearns but no outside assistance. It was the largest fund bailout since Long Term Capital Management's collapse in 1998. The U.S. Securities and Exchange Commission is investigating. Performance measurement

The issue of performance measurement in the hedge fund industry has led to literature that is both abundant and controversial. Traditional indicators (Sharpe, Treynor, Jensen) work best when returns follow a symmetrical distribution. In that case, risk is represented by the standard deviation. Unfortunately, hedge fund returns are not normally distributed, and hedge fund return series are auto correlated. Consequently, traditional performance measures suffer from theoretical problems when they are applied to hedge funds, making them even less reliable than is suggested by the shortness of the available return series.

Innovative performance measures have been introduced in an attempt to deal with this problem: Modified Sharpe ratio by Gregoriou and Gueyie (2003), Omega by Keating and Shadwick (2002), Alternative Investments Risk Adjusted Performance (AIRAP) by Sharma (2004), and Kappa by Kaplan and Knowles (2004). An overview of these performance measures is available in Géhin, W., 2006, *The Challenge of Hedge Fund Performance Measurement: a Toolbox rather than a Pandora's Box*, EDHEC Risk and Asset Management Research Center, Position Paper, December. However, there is no consensus on the most appropriate absolute performance measure, and traditional performance measures are still widely used in the industry.

3) Relationships with Analysts

In June 2006, the U.S. Senate Judiciary Committee began an investigation into the links between hedge funds and independent analysts, and other issues related to the funds. Connecticut Attorney General Richard Blumenthal testified that an appeals court ruling striking down oversight of the funds by federal regulators left investors "in a regulatory void, without any disclosure or accountability." The hearings heard testimony from, among others, Gary Aguirre, a staff attorney who was recently fired by the SEC. Transparency

Some hedge funds, mainly American, do not use third parties either as the custodian of their assets or as their administrator (who will calculate the NAV of the fund). This can lead to conflicts of interest, and in extreme cases can assist fraud. In a recent example, Kirk Wright of International Management Associates has been accused of mail fraud and other securities violations which allegedly defrauded clients of close to \$180 million.

Check your progress 4

1. The risk involved in hedge fund according to European Central Bank is:

- | | |
|------------------------|-------------------|
| a. financial stability | c. systemic money |
| b. financial security | d. none of these |

3.6 Fund of Hedge Funds

Funds of hedge funds generally charge a fee for their services, always in addition to the hedge fund's management and performance fees, which can be 1.5% and 15-30%, respectively. Although returns can be high, fees will always cut into your profits and sometimes make your total return less than what it would be if you did it alone or with an average market mutual fund or ETF.

Related Terms: Fund of Hedge Funds, FoF, Hedge Fund of Fund, Hedge Fund of Funds, Fund of Hedge Funds, Hedge Fund Portfolio, Portfolio of Hedge Funds, fund of funds hedge funds, fund of funds hedge fund, a hedge fund of funds, funds of hedge funds portfolio, top hedge fund of funds, best fund of hedge funds, top fund of hedge funds, best hedge fund of funds, FoF, fund of hedge fund managers, fund of hedge funds

Check your progress 5

1. Funds of hedge funds generally charge fee for services of around percent.

- | | |
|-------|-------|
| a. 1 | c. 60 |
| b. 45 | d. 75 |

3.7 Offshore Investment Top of Form

Offshore investment is the keeping of money in a jurisdiction other than one's country of residence. Offshore jurisdictions are a commonly accepted solution to reducing excessive tax burdens levied in most countries to both large and small scale investors alike. Selected offshore domiciles are superficially viewed by some as havens used by to conceal or protect illegally acquired money from law enforcement in the investor's country. Although this may be the case, legitimate investors also take advantage of higher rates of return or lower rates of

tax on that return offered by operating via such domiciles. The advantage to this is that such operations are both legal and less costly than the solutions offered in the investor's country - or "onshore". Locations favoured by investors for low rates of tax are known as offshore financial centers or (sometimes) tax havens.

Offshore solutions are accessible to anyone who can meet the minimum investment amount or pay the obligatory fees required to open such an entity.

Tax is the driving force behind 'offshore' activity. Due to offshore solutions investors are able to conduct investment activities in a profitable fashion. Often, taxes levied by an investor's home country are critical to the profitability of any given investment. Using offshore domiciled special purpose vehicles an investor may reduce this burden allowing the investor to achieve greater profitability overall.

Another reason why 'offshore' investment is superior to 'onshore' investment is because it is less regulated, and the behaviour of the offshore investment provider, whether he is a banker, fund manager, trustee or stock-broker, is freer than it could be in a more regulated environment.

Reasons for Offshore Investment:

- Avoidance of forced heirship
- Asset protection
- Less regulated (for example, hedge funds, which thrive in low regulatory environments due to their highly aggressive investment strategies thrive in offshore jurisdictions, principally the Cayman Islands)
- Privacy
- Tax advantages (legal)
- Money Laundering and Tax evasion (illegal)

Security

An instrument representing ownership (stocks), a debt agreement (bonds), or the rights to ownership (derivatives).

A security is essentially a contract that can be assigned a value and traded.

Examples of a security include a note, stock, preferred share, bond, debenture, option, future, swap, right, warrant, or virtually any other financial asset.

Check your progress 6

1. Which is not a reason for Offshore investment?
 - a. Avoidance of forced heirship
 - b. Profit
 - c. Asset protection
 - d. Less regulated

3.8 Let Us Sum Up

In this unit we have learnt that in hedge fund indices, there are number of indices which will track the hedge fund industry. Such indices appear as Investable and Non-investable as they have substantial problems. It is seen that an investable indices are created from funds which can be bought and sold and only Hedge funds which agrees to have investments on terms which is acceptable to constructor of index.

In an offshore investment, money is kept in jurisdiction other than ones country. In this commonly accepted solution are present which will reduce excessive tax burdens levied in many countries to both large and small scale investors alike. It is found that hedge funds are most often set up as private investment partnerships which is open to limited number of investors and requires large initial minimum investment. In this, investments are illiquid as they often require investors to keep their money in fund for minimum period of one year. The risk in hedge fund is considered to be a riskier proposition than investing in a regulated fund which contains several reasons.

There are many hedge fund indices which track hedge fund industry like Investable and Non-investable. It is seen that an investable indices are created from funds bought and sold while non-investable indices are indicative in nature and aim to show performance of universe of hedge funds. A fund of hedge funds is a fund which invests in several different hedge funds to spread the risks. Funds of hedge funds select hedge fund managers and construct portfolios based upon those selections. The fund of hedge funds is responsible for hiring and firing the managers in the fund. Some funds of hedge funds might have only one hedge fund in it thus lets ordinary investors into a highly-acclaimed fund, or many hedge funds

3.9 Answer for Check Your Progress

Check your progress 1

Answers: (1-b)

Check your progress 2

Answers: (1-d)

Check your progress 3

Answers: (1-c)

Check your progress 4

Answers: (1-a)

Check your progress 5

Answers: (1-a)

Check your progress 6

Answers: (1-b)

3.10 Glossary

1. **Hedge Fund** - It is an investment fund structured which avoid direct regulation and taxation which charges a performance fee based on increase of value of fund's assets.
2. **Asset** - This is anything having value owned by an individual, institution or business.
3. **Bond** - It is a type of debt security issued by corporations, government agencies, municipalities and states for issuer to pay bondholder principal amount at maturity.

3.11 Assignment

Explain hedge fund risk. What are the primary reasons for the increased risk?

3.12 Activities

Explain the points of debates and controversies for hedge funds.

3.13 Case Study

Discuss the risk involved with Hedge Fund.

3.14 Further Readings

1. Investment Analysis and Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis and Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.
6. Portfolio Management –S. Kevin – Prentice Hall India.
7. Reilly and Brown – Investment Analysis and Portfolio Mgmt. – Thomson Learning, 7/e, 2004.

Block Summary

In this block, students have given knowledge about money market and instrument used along with certain criteria's of risk modelling with detailed about investment risk. The idea about inflation and indices are well illustrated with which students will get knowledge about certain world indices and derivative options available in them. This block allows the students to gain extra knowledge about various risk and investment on hedge fund. The knowledge about different types of hedge fund with their working and characteristics are well explained.

After completing this block, students will be able to know about basic of traded stock options and funded credit derivative products. The idea of various financial instruments in money market will help students to gain extra knowledge about various money market tools.

Block Assignment

Short Answer Questions

1. What is offshore investment?
2. Write the different Financial Instruments used in Money Market
3. What do you mean by Traded Stock Options?
4. List some Funded Credit Derivative Products?
5. Write features about Risk Modelling?

Long Answer Questions

1. How trading in stock is done?
2. What is Investment Risk and Return?
3. What is Hedge Fund? What are fees and performance fees and hedge fund water marks?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



Dr. Babasaheb Ambedkar Open University
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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PGDF-202

**BLOCK 4:
DOW THEORY AND DAY
TRADING**

**Dr. Babasaheb Ambedkar Open University
Ahmedabad**



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT



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ROLE OF SELF INSTRUCTIONAL MATERIAL IN DISTANCE LEARNING

The need to plan effective instruction is imperative for a successful distance teaching repertoire. This is due to the fact that the instructional designer, the tutor, the author (s) and the student are often separated by distance and may never meet in person. This is an increasingly common scenario in distance education instruction. As much as possible, teaching by distance should stimulate the student's intellectual involvement and contain all the necessary learning instructional activities that are capable of guiding the student through the course objectives. Therefore, the course / self-instructional material are completely equipped with everything that the syllabus prescribes.

To ensure effective instruction, a number of instructional design ideas are used and these help students to acquire knowledge, intellectual skills, motor skills and necessary attitudinal changes. In this respect, students' assessment and course evaluation are incorporated in the text.

The nature of instructional activities used in distance education self-instructional materials depends on the domain of learning that they reinforce in the text, that is, the cognitive, psychomotor and affective. These are further interpreted in the acquisition of knowledge, intellectual skills and motor skills. Students may be encouraged to gain, apply and communicate (orally or in writing) the knowledge acquired. Intellectual-skills objectives may be met by designing instructions that make use of students' prior knowledge and experiences in the discourse as the foundation on which newly acquired knowledge is built.

The provision of exercises in the form of assignments, projects and tutorial feedback is necessary. Instructional activities that teach motor skills need to be graphically demonstrated and the correct practices provided during tutorials. Instructional activities for inculcating change in attitude and behavior should create interest and demonstrate need and benefits gained by adopting the required change. Information on the adoption and procedures for practice of new attitudes may then be introduced.

Teaching and learning at a distance eliminates interactive communication cues, such as pauses, intonation and gestures, associated with the face-to-face method of teaching. This is particularly so with the exclusive use of print media. Instructional activities built into the instructional repertoire provide this missing interaction between the student and the teacher. Therefore, the use of instructional activities to affect better distance teaching is not optional, but mandatory.

Our team of successful writers and authors has tried to reduce this.

Divide and to bring this Self Instructional Material as the best teaching and communication tool. Instructional activities are varied in order to assess the different facets of the domains of learning.

Distance education teaching repertoire involves extensive use of self-instructional materials, be they print or otherwise. These materials are designed to achieve certain pre-determined learning outcomes, namely goals and objectives that are contained in an instructional plan. Since the teaching process is affected over a distance, there is need to ensure that students actively participate in their learning by performing specific tasks that help them to understand the relevant concepts. Therefore, a set of exercises is built into the teaching repertoire in order to link what students and tutors do in the framework of the course outline. These could be in the form of students' assignments, a research project or a science practical exercise. Examples of instructional activities in distance education are too numerous to list. Instructional activities, when used in this context, help to motivate students, guide and measure students' performance (continuous assessment)



PREFACE

We have put in lots of hard work to make this book as user-friendly as possible, but we have not sacrificed quality. Experts were involved in preparing the materials. However, concepts are explained in easy language for you. We have included many tables and examples for easy understanding.

We sincerely hope this book will help you in every way you expect.

All the best for your studies from our team!



SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

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BLOCK 4: DOW THEORY AND DAY TRADING

UNIT 1 DOW THEORY

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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

BLOCK 4: DOW THEORY AND DAY TRADING

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DOW THEORY

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BLOCK 4: DOW THEORY AND DAY TRADING

Block Introduction

Dow Theory asserts that major market trends are composed of three phases: an accumulation phase, a public participation phase, and a distribution phase. The accumulation phase (phase 1) is when investors "in the know" are actively buying (selling) stock against the general opinion of the market. Day trading has its origins in the birth of the computerized, over-the-counter NASD, which occurred in 1971. Fourteen years later, NASD created the Small-Order Execution System, which made it easy for individuals to execute stock trades automatically, as long as the orders were for 1,000 shares or less.

In this block, students will get knowledge about Dow Theory and its study related to market along with three trends and three phase logic. The concept of market discount and primary phases with brief index concept is well explained. The block will detail about Dow Theory trends with systematic graphical representation shows detailed description. The knowledge about trading with stress on day trading is well explained which will show various regulations and criteria's with risk.

After completing this block, students will be able to understand about day trading characteristics with emphasis on day trader activities. The concepts of five investing pitfalls are explained with various speculation techniques that will make aware to students regarding trading criteria's and rules. After studying this block, students will be able to understand about the economic benefit of speculation with more on side effects.

Block Objective

After learning this block, you will be able to understand:

- Concept of Dow Theory
- Features about Market discounts
- The characteristics of Three-Trend Market Theory
- Detailed about role of day trader
- Characteristics of day trading

Dow
Theory and
Day
Trading

- Idea about use of Jargon in day trading
- Traits about Speculation

Block Structure

Unit 1: Dow Theory

Unit 2: Day Trading

UNIT 1: DOW THEORY

Unit Structure

1.0 Learning Objectives

1.1 Introduction

1.2 Dow Theory: Introduction

1.3 Dow Theory: The Market Discounts Everything

1.4 Dow Theory: The Three -Trend Market

1.5 Dow Theory: The Three Phases of Primary Trends

1.6 Dow Theory: Market Indexes Must Confirm Each Other

1.7 Dow Theory: Trend Remains in Effect Until Clear Reversal Occurs

1.8 Dow Theory: Dow Theory Specifics

1.9 Let Us Sum Up

1.10 Answer for Check Your Progress

1.11 Glossary

1.12 Assignment

1.13 Activities

1.14 Case Study

1.15 Further Readings

1.0 Learning Objectives

After learning this unit, you will be able to understand:

- Dow Theory
- Market Discounts
- Three Phases of Primary Trends

1.1 Introduction

A theory of stock market forecasting based on price movements of selected industrial and transportation stocks. Theory that a major trend in the stock market must be confirmed by a similar movement in the Dow Jones Industrial Average and the Dow Jones Transportation Average. According to Dow Theory, a significant trend is not confirmed until both Dow Jones indexes reach the new highs or lows; if they don't, the market will fall back to its former trading range. Dow Theory proponents often disagree on when a true breakout has occurred and, in any case, miss a major portion of the up or down move while waiting for their signals.

Dow Theory was put together from series of Wall Street Journal editorials which was authored by Charles H. Dow from 1900 till his death. Such editorials reflect Dow's beliefs on stock market which shows how market could be used to measure health of business environment.

As per Dow, stock market was a complete reliable measure of growth conditions for any business for countries economy which analyse overall market by correctly gauging conditions and finding direction of major market trends and direction of stocks.

With his theory, he established Dow Jones Industrial Index and Dow Jones Rail Index. Through this setup, Dow felt they were an accurate reflection of the business conditions within the economy because they covered two major economic segments: industrial and rail. While these indexes have changed over the last 100 years, the theory still applies to current market indexes.

1.2 Dow Theory: Introduction

A theory which says the market is in an upward trend if one of its averages (industrial or transportation) advances above a previous important high, it is accompanied or followed by a similar advance in the other. The theory also says that when both averages dip below previous important lows, it's regarded as an indicator of a downward trend.

Dow Theory is a theory on stock price movements that provides a basis for technical analysis. The theory was derived from 255 Wall Street Journal editorials written by Charles H. Dow (1851–1902), journalist, founder and first editor of the Wall Street Journal. His six basic tenets explained by Hamilton, Rhea, and Schaefer are described below.

Six basic tenets of Dow Theory

1. Markets Have Three Trends

Dow defined an uptrend (trend 1) as a time when successive rallies in a security price close at levels higher than those achieved in previous rallies and when lows occur at levels higher than previous lows. Downtrends (trend 2) occur when markets make lower lows and lower highs. It is this concept of Dow Theory that provides the basis of technical analysis' definition of a price trend. Dow described what he saw as a recurring theme in the market: those prices would move sharply in one direction, recede briefly in the opposite direction, and then continue in their original direction (trend 3).

2. Trends Have Three Phases

During this phase, the stock price does not change much because these investors are in the minority absorbing (releasing) stock that the market at large is supplying (demanding). Eventually, the market catches on to these astute investors and a rapid price change occurs (phase 2). This is when trend followers and other technically oriented investors participate. This phase continues until rampant speculation occurs. At this point, the astute investors begin to distribute their holdings to the market (phase 3).

3. The Stock Market Discounts All News

Stock prices quickly incorporate new information as soon as it becomes available. Once news is released, stock prices will change to reflect this new information. On this point, Dow Theory agrees with one of the premises of the efficient market hypothesis.

4. Stock Market Averages Must Confirm Each Other

In Dow's time, the US was a growing industrial power. The US had population centers but factories were scattered throughout the country. Factories had to ship their goods to market, usually by rail. Dow's first stock averages were an index of industrial (manufacturing) companies and rail companies. To Dow, a bull market in industrials could not occur unless the railway average rallied as well, usually first. According to this logic, if manufacturers' profits are rising, it follows that they are producing more. If they produce more, then they have to ship more goods to consumers. Hence, if an investor is looking for signs of health in manufacturers, he or she should look at the performance of the companies that ship the output of them to market, the railroads. The two averages should be moving in the same direction. When the performance of the averages diverges, it is a warning that change is in the air.

Both Barron's Magazine and the Wall Street Journal still publish the daily performance of the Dow Jones Transportation Index in chart form. The index contains major railroads, shipping companies, and air freight carriers in the US.

5. Trends are confirmed by Volume

Dow believed that volume confirmed price trends. When prices move on low volume, there could be many different explanations why. An overly aggressive seller could be present for example. But when price movements are accompanied by high volume, Dow believed this represented the "true" market view. If many participants are active in a particular security, and the price moves significantly in one direction, Dow maintained that this was the direction in which the market anticipated continued movement. To him, it was a signal that a trend is developing.

6. Trends Exist Until Definitive Signals Prove That They Have Ended

Dow believed that trends existed despite "market noise". Markets might temporarily move in the direction opposite the trend, but they will soon resume the prior move. The trend should be given the benefit of the doubt during these reversals. Determining whether a reversal is the start of a new trend or a temporary movement in the current trend is not easy. Dow Theorists often disagree in this determination. Technical analysis tools attempt to clarify this but they can be interpreted differently by different investors.

Analysis

As with many investment theories, there is conflicting evidence in support and opposition of Dow Theory. Alfred Cowles in a study in *Econometrical* in 1934 showed that trading based upon the editorial advice would have resulted in earning less than a buy-and-hold strategy using a well-diversified portfolio. Cowles concluded that a buy-and-hold strategy produced 15.5% annualized returns from 1902-1929 while the Dow Theory strategy produced annualized returns of 12%. After numerous studies supported Cowles over the following years, many academics stopped studying Dow Theory believing Cowles's results were conclusive.

In recent years however, some in the academic community have revisited Dow Theory and question Cowles' conclusions. William Goetzmann, Stephen Brown, and Priyanka kumar believe that Cowles' study was incomplete and that Dow Theory produces excess risk-adjusted returns. Specifically, the absolute return of a buy-and-hold strategy was higher than that of a Dow Theory portfolio by 2%, but the riskiness and volatility of the Dow Theory portfolio was so much

lower than the Dow Theory portfolio produced higher risk-adjusted returns according to their study. The Chicago Board of Trade also notes that there is growing interest in market timing strategies such as Dow Theory.

One key problem with any analysis of Dow Theory is that the editorials of Charles Dow did not contain explicitly defined investing "rules" so some assumptions and interpretations are necessary. And as with many academic studies of investing strategies, practitioners often disagree with academics.

Many technical analysts consider Dow Theory's definition of a trend and its insistence on studying price action as the main premises of modern technical analysis.

Check your progress 1

1. Dow Theory is concerned with:
 - a. stock price movements
 - b. mutual fund price movements
 - c. bonds price movements
 - d. all of above

1.3 Dow Theory: The Market Discounts Everything

The initial base of premise of Dow Theory shows that information - past, current and future can be discounted in markets which gives reflection on prices of stocks and indexes.

According to him, information such as emotions of investors to inflation and interest-rate with pending earnings announcements made by companies after close. As per the principle, the information excluded is unknowable like massive earthquake which involves risks of event that are priced in market. It is seen that it is not to suggest that market participants or market itself showing ability to predict future events. It is studied that over any period of time factors such as those happened are expected to happen and could happen in the market.

He finds that the basic of market discounts is not new to technical traders, as this is main premise of certain tools used in field of study. As per technical analysis, only price movements are affected and no other factors as balance sheet.

He think that price movement of major market indexes under certain prevailing trend in market makes an investment decision. In this, he describes that if the stock is prevailing upward in trend, then it shows that an investor will buy individual stocks trading at fair valuation. It's important to note that while Dow Theory itself is focused on price movements and index trends, implementation can also incorporate elements of fundamental analysis, including value- and fundamental-oriented strategies. Having said that, Dow Theory is much more suited to technical analysis.

Check your progress 2

1. As per the Dow theory, which among the following factors are affected:
 - a. price movements
 - b. balance sheet
 - c. stock quantity
 - d. all of these

1.4 Dow Theory: The Three-Trend Market

The Dow Theory distinguishes an overall direction of market by studying the trend analysis. The study of specific trend analysis needs to understand. With this, the initial market tends which sows movement in direction or trend without straight line. The market will rally up to a high and sell off low (trough), will generally move in one direction.

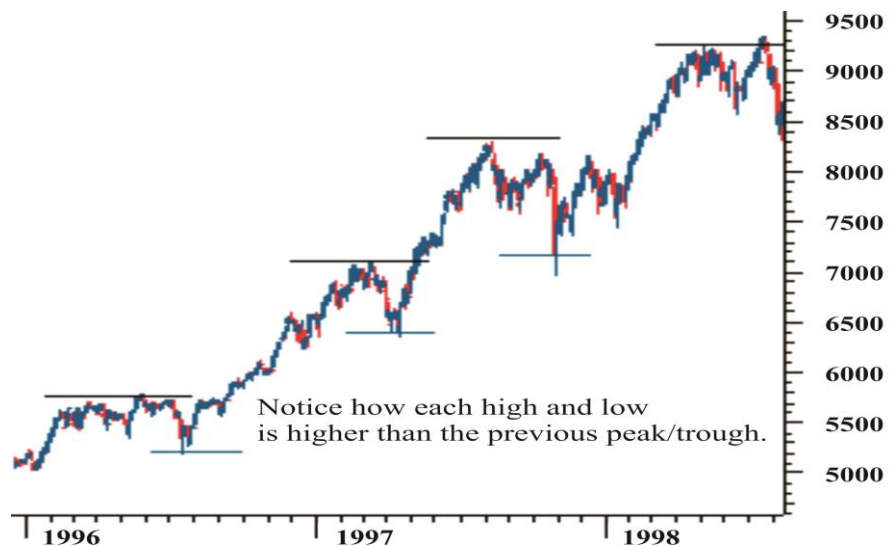


Fig 1.1 An uptrend

It is studied that upward trend breaks into many rallies where rally has a high and a low. For an uptrend, each peak in rally will reach higher level as compared to earlier rally's peak where each low is higher as previous rally's low.

Further, the downward trend breaks into several sell-offs, in which each sell-off has high and low. In downtrend, each new low in sell-off have lower than previous sell-offs low and peak in sell-off is lower than peak in previous sell-off.

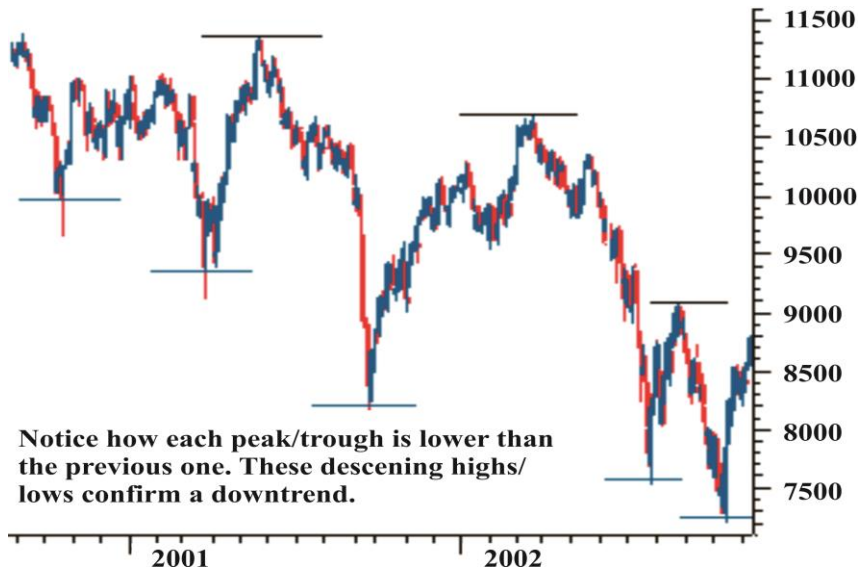


Fig 1.2 A Downtrend

Dow Theory finds three trends in market as primary, secondary and minor. A primary trend is largest trend lasting for more than a year, while secondary trend is an intermediate trend that lasts 3 weeks to 3 months and is related to movement against primary trend. The minor trend will lasts less than 3 weeks and is associated with the movements in the intermediate trend.

Primary Trend

The Dow Theory carries primary trend which is main trend of market, which makes it important to find trend of market. It happens because overriding trend affects the movements in stock prices. Dow determined that primary trend will generally last between one and three years.

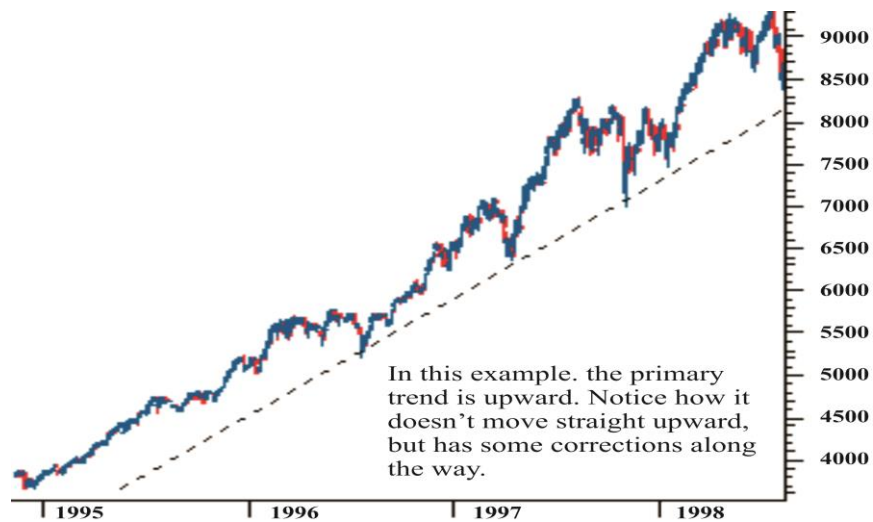


Fig 1.3 An uptrend with corrections

Here we see that an important aspect is to find the direction of this trend and to trade with it and not against it till the weight of evidence shows reversal in primary trend.

Secondary, or Intermediate, Trend

In Dow Theory, a primary trend is the main direction in which the market is moving. It is seen that in secondary trend, the market moves in opposite direction of primary trend. Figure 1.4 shows illustration of secondary trend in primary uptrend. We see that the short-term highs fail to create higher peaks showing short-term downtrend.



Fig 1.4 A secondary trend w/ a primary uptrend

The secondary or intermediate trend appears till three weeks and three months while retracement of secondary trend ranges one-third to two-thirds of the primary trend's movement.

Minor Trend

Another trend in Dow Theory which shows the market movement for less than 3 weeks. It is basically the corrective moves in secondary move or moves that goes against direction of secondary trend.

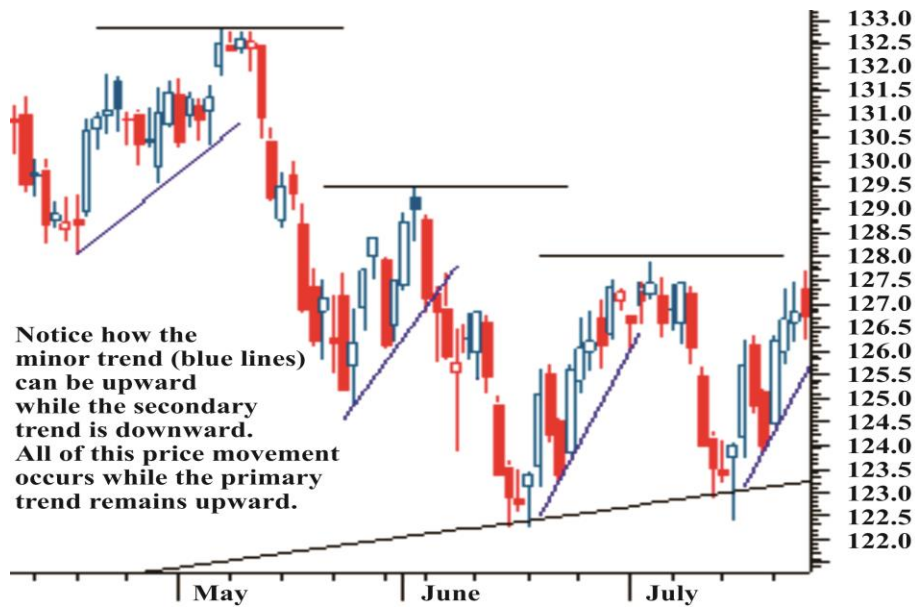


Fig 1.5 Minor Trend

It is not a major concern in Dow Theory. Most proponents of Dow Theory focus their attention on the primary and secondary trends, as minor trends tend to include a considerable amount of noise.

Check your progress 3

1. In a market, which among the following trend will last for one year?
 - a. secondary
 - b. primary
 - c. minor
 - d. none of above

1.5 Dow Theory: The Three Phases of Primary Trends

Since the most vital trend to understand is the primary trend, this leads into the third tenet of Dow theory, which states that there are three phases to every primary trend – the accumulation phase (distribution phase), the public participation phase and a panic phase (excess phase).

Primary Upward Trend (Bull Market)

1) The Accumulation Phase

It is an initial stage of bull market which is start of upward trend which shows the point at which informed investors start to enter the market. This phase comes at end of downtrend.

It is the most difficult phase that can be spotted as it comes at end of a downward move, which is not more than secondary move in primary downward trend instead of being start of new uptrend. This phase will also be characterized by persistent market pessimism, with many investors thinking things will only get worse.

From the technical standpoint, start of such phase marked by period of price consolidation in market. This occurs when downtrend starts to flatten out, as selling pressure starts to dissipate.

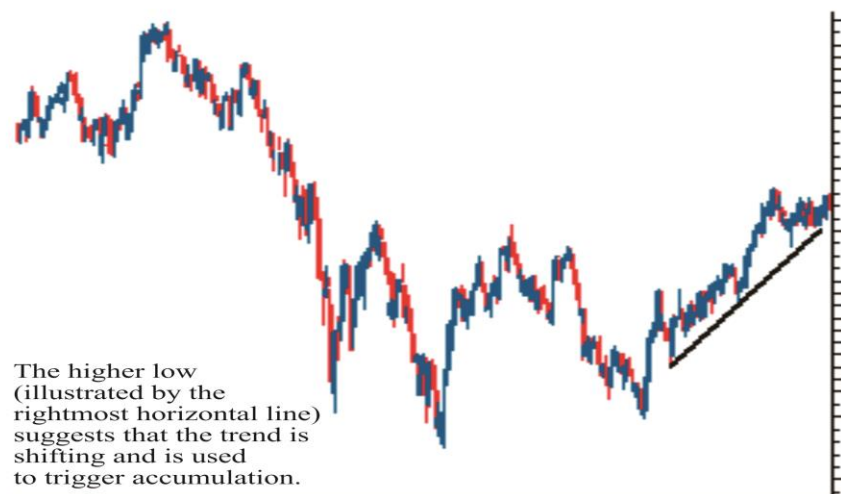


Fig 1.6 The accumulation phase

A new upward trend will be confirmed when the market doesn't move to a consecutively lower low and high.

2) Public Participation Phase

The investors now enter in the market during accumulation phase with the assumption that market will now recover. As this starts to materialize, the new primary trend moves into what is known as the public participation phase.

In this phase the negative sentiment dissipates the business conditions which are marked by earnings growth and strong economic data improvement. With the occurrence of good news, the market gets permeated with more investors to move back in, sending prices higher.

This phase tends not only to be the longest lasting, but also the one with the largest price movement. It's also the phase in which most technical and trend traders start to take long positions, as the new upward primary trend has confirmed itself - a sign these participants have waited for.

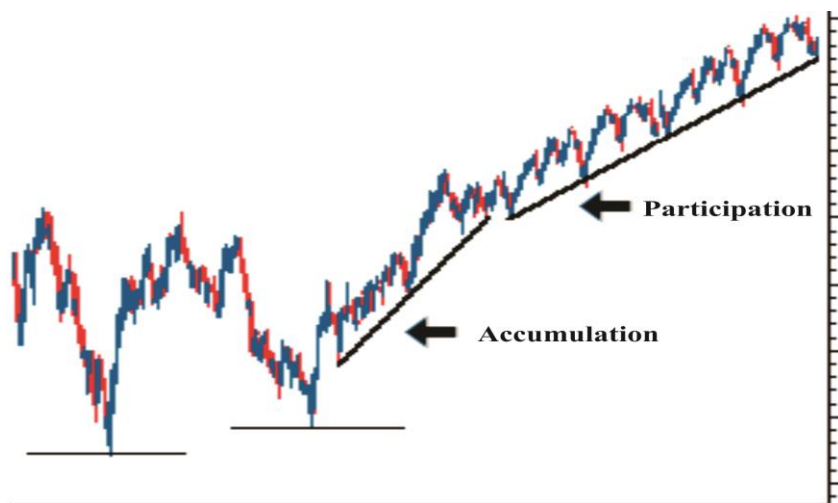


Fig 1.7 the public participation phase

3) The Excess Phase

As the market has made a strong move higher on the improved business conditions and buying by market participants to move starts to age, we begin to move into the excess phase. At this point, the market is hot again for all investors.

During this phase, a lot of attention should be placed on signs of weakness in the trend, such as strengthening downward moves. Also, if the upward moves start to show weakness, it could be another sign that the trend may be near the start of a primary downtrend.

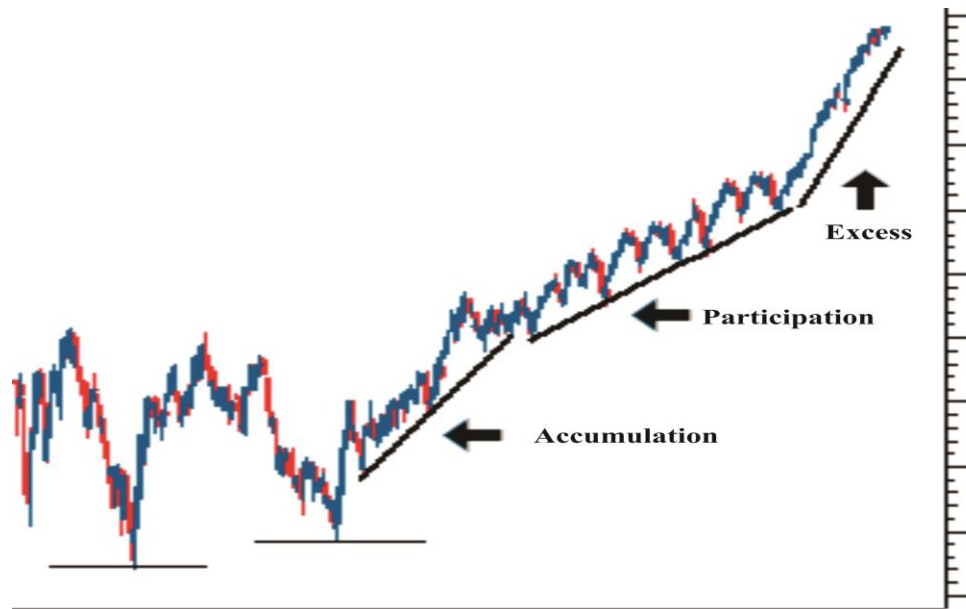


Fig 1.8 the excess phase

B) Primary Downward Trend (Bear Market)

1) The Distribution Phase

The first phase in a bear market is known as the distribution phase, the period in which informed buyers sell (distribute) their positions. This is the opposite of the accumulation phase during a bull market in that the informed buyers are now selling into an overbought market instead of buying in an oversold market.

In this phase, overall sentiment continues to be optimistic, with expectations of higher market levels. It is also the phase in which there is continued buying by the last of the investors in the market, especially those who missed the big move but are hoping for a similar one in the near future.

2) Public Participation Phase

It is same as public participation phase appears in primary upward trend in that it lasts longest and shows largest part of move downwardly. In this, it is clear that business conditions in market are getting worse and sentiment becomes negative as time goes on.

3) The Panic Phase

The last phase of the primary downward market tends to be filled with market panic and can lead to very large sell-offs in a very short period of time. In the panic phase, the market is wrought up with negative sentiment, including weak outlooks on companies, the economy and the overall market.

Check your progress 4

1. Which is not covered under three phase primary phase?
 - a. distribution phase
 - b. trading phase
 - c. public participation phase
 - d. panic phase

1.6 Dow Theory: Market Indexes Must Confirm Each Other

In Dow Theory, a reversal from bull to bear market cannot be signalled unless both indexes are in agreement. When an index is confirming new primary uptrend but another index remains in primary downward trend then it becomes difficult to assume the start of new trend. It happens because a primary trend, either up or down, is overall direction of stock market.

If the working of stock market is well as business conditions are good, then the stock market will not do well as of poor business conditions. If the two Dow indexes are in conflict, there is no clear trend in business conditions.

If business conditions cause the major indexes to travel in opposite directions, this disparity suggests that it will be difficult for a primary trend to develop. When trying to confirm a new primary trend, therefore, it's vital that more than one index shows similar signals within a relatively close period of time.

Check your progress 5

1. Which is incorrect?
 - a. primary trend shows only down direction
 - b. primary trend shows only up direction
 - c. primary trend shows both up or down direction
 - d. primary trend is not an overall direction of stock market

1.7 Dow Theory: Trend Remains in Effect Until Clear Reversal Occurs

The idea of locating a trend is to find an overall direction of market so that trades can be made with trends and not against them. In Dow Theory, the sixth and final tenet states that a trend remains in effect until the weight of evidence suggests that it has been reversed. In this, the traders wait for a clear picture of trend reversal as a goal is not to make the investor confuse about true reversal in primary trend with secondary trend.

Check your progress 6

1. The idea of finding trend is to locate an:
 - a. overall direction of stock
 - b. overall direction of traders
 - c. overall direction of market
 - d. overall direction of indices

1.8 Dow Theory: Dow Theory Specifics

a) Closing Prices and Line Ranges

Charles Dow relied exclusively on closing prices and was not disturbed about the intraday activities of the index. For a trend signal to be created, the closing price has to hint the trend, not an intraday price movement.

Another characteristic in Dow Theory is the idea of line ranges called as trading ranges in areas of technical analysis.

b) Signals and Identification of Trends

One difficult aspect of implementing Dow Theory is the accurate identification of trend reversals. One of the main techniques used to identify trend reversals in Dow Theory is peak-and-trough analysis. A peak is defined as the highest price of a market movement, while a trough is seen as the lowest price of a market movement.

An upward trend in Dow Theory is a series of successively higher peaks and higher troughs.

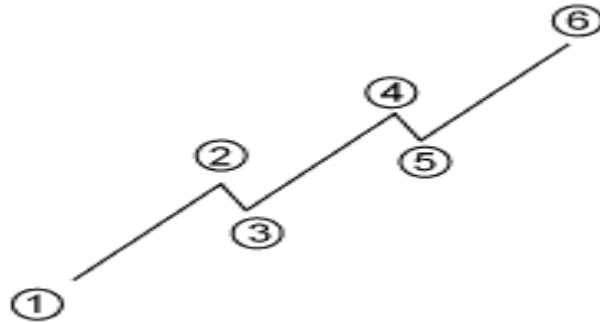


Fig 1.9 Upward Trend

A downward trend is a series of successively lower peaks and lower troughs.

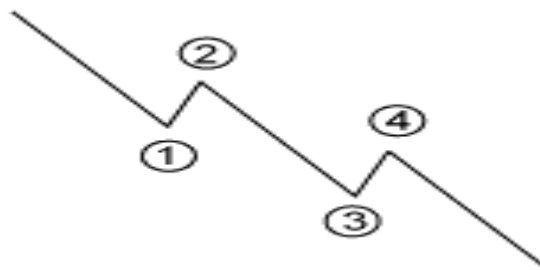


Fig 1.10 Downward Trend

The sixth tenet of Dow Theory contends that a trend remains in effect until there is a clear sign that the trend has reversed. A reversal in the primary trend is signalled when the market is unable to create another successive peak and trough in the direction of the primary trend.

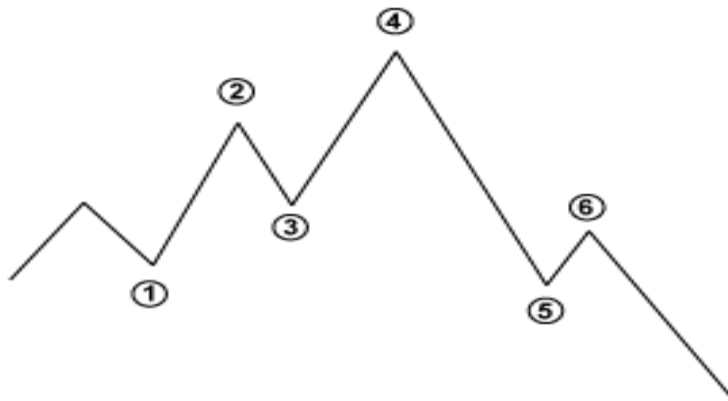


Fig 1.11 Upward Trend Reversal

The reversal of a downward primary trend occurs when the market no longer falls to lower lows and highs.

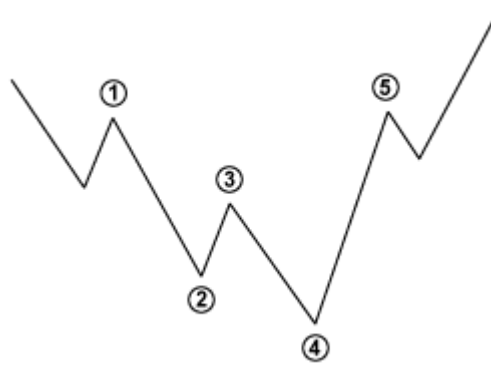


Fig 1.12 Downward Trend Reversal

Check your progress 7

1. The upward trend in Dow Theory shows:
 - a. series of successively high peaks
 - b. series of high troughs
 - c. series of successively higher peaks and higher troughs
 - d. none of above

1.9 Let Us Sum Up

In this unit we have learnt that there exists a theory which describes about market trends if one of its averages advances above previous important high that is either accompanied or followed by similar advance. Such theory is called as Dow Theory. The Dow Theory formulated from series of Wall Street Journal editorials from 1900 century which beliefs on how stock market behaved and market measures the health of business environment.

Initially, the basic premise of Dow Theory suggests that all information related to past, current and future can be discounted into markets and reflected in prices of stocks and indexes. In Dow Theory, the primary trend is major trend of market, which makes it most important to determine trend of market. Under this theory, a major reversal from a bull to a bear market cannot be signalled unless both indexes are in agreement.

Dow Theory is a theory on stock price movements that provides a basis for technical analysis. Dow believed that stock market as a whole was a reliable measure of overall business conditions within the economy and that by analysing

the overall market; one could accurately gauge those conditions and identify the direction of major market trends and the likely direction of individual stocks. The last of the three trend types in Dow Theory is the minor trend, which is defined as a market movement lasting less than three weeks. The minor trend is generally the corrective moves within a secondary move, or those moves that go against the direction of the secondary trend.

If business conditions cause the major indexes to travel in opposite directions, this disparity suggests that it will be difficult for a primary trend to develop. When trying to confirm a new primary trend, therefore, it's vital that more than one index shows similar signals within a relatively close period of time. If the indexes are in agreement, it is a sign that business conditions are moving in the indicated direction. Thus, rising indexes signal a new uptrend.

1.10 Answer for Check Your Progress

Check your progress 1

Answers: (1-a)

Check your progress 2

Answers: (1-a)

Check your progress 3

Answers: (1-b)

Check your progress 4

Answers: (1-b)

Check your progress 5

Answers: (1-c)

Check your progress 6

Answers: (1-c)

Check your progress 7

Answers: (1-c)

1.11 Glossary

1. **Bear Market** - It shows a period of generally falling stock prices.
2. **Bull Market** - It shows a period of generally rising stock prices.
3. **Asset** - This is anything having value owned by an individual, institution or business.

1.12 Assignment

Explain the three phases of primary trends in Dow Theory.

1.13 Activities

Collect some information and analyse data with respect to Dow Theory.

1.14 Case Study

What is importance of Dow Theory in market? Give comments.

1.15 Further Readings

1. Investment Analysis & Portfolio Management – Reilly – 8/e –Thamson / Cengage Learning.
2. Security Analysis & Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
3. Investment science – David G.Luenberger. Oxford.
4. Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
5. Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.

UNIT 2: DAY TRADING

Unit Structure

2.0 Learning Objectives

2.1 Introduction

2.2 Day Trader

2.2.1 Day Trading

2.2.2 The Risks of Day Trading

2.2.3 The History of Day Trading

2.3 Characteristics of Day Trading

2.3.1 Profit and Risks

2.3.2 History

2.4 Techniques Use in Day Trading

2.5 Regulations and Restrictions

2.6 Jargon use in Day trading

2.7 Investing - Portfolios and Diversification

2.8 Five Investing Pitfalls to Avoid, According to Investor's Business Daily

2.9 Speculation

2.10 Type of Speculators

2.11 The Economic Benefits of Speculation

2.12 Some Side Effects

2.13 Let Us Sum Up

2.14 Answer for Check Your Progress

2.15 Glossary

2.16 Assignment

2.17 Activities

2.18 Case Study

2.19 Further Readings

2.0 Learning Objectives

After learning this unit, you will be able to understand:

- Day Trader
- Day Trading
- Jargon in Day trading

2.1 Introduction

A Trade involves the buying, holding, selling, and short-selling of stocks, bonds, commodities, currencies, derivatives or any valuable financial instrument to profit from fluctuations in its price as opposed to buying it for use or for income via methods such as dividends or interest. A trade is similar to speculation and investing, but differs in that the position in the security is intended to be held for a very short time, generally less than a week.

Speculation: The process of selecting investments with higher risk in order to profit from an anticipated price movement.

2.2 Day Trader

A speculator who buy and sell securities on the basis of small short-term price movements.

2.2.1 Day Trading

A stock trader who holds positions for a very short time (from minutes to hours) and makes numerous trades each day. Most trades are entered and closed out within the same day.

This is a highly speculative practice. The reality is that most day traders lose money. Person who buy and sell within a short time, generally minutes or hours, most frequently within the day, though some may hold a position for 2 to 3 days.

With the rapid growth of the Internet in the late 1990s, international stock markets moved online and became easily accessible to anyone with access to the World Wide Web. As a result, people were able to trade stocks directly from their own computers, a function previously performed only by stock brokers. Once people realized they could handle their own stock trades, many decided to try to make money by guessing when the ups and downs in the stock market would

occur. As a result, day trading was born. The effect that the Internet has had on the stock markets cannot be emphasized enough. Commenting in *Entrepreneur*, Securities and Exchange Commission (SEC) Chairman Arthur Levitt estimated that in 1999, 25 percent of all trades were made by individuals online. That means that seven million investors participated in online trading—which is impressive considering there were none just five years earlier. And more growth is expected.

In its investigation of the new practice, the U.S. Senate Permanent Subcommittee on Investigations defined day trading as "placing multiple buy and sell orders for securities and holding positions for a very short period of time, usually minutes or a few hours, but rarely longer than a day. Day traders seek profits in small increments from momentary fluctuations in stock prices after paying commissions." In the more technical language of the National Association of Securities Dealers (NASD), day trading is "an overall trading strategy characterized by the regular transmission by a customer of intra-day orders to effect both purchase and sale transactions in the same security or securities."

2.2.2 The Risks of Day Trading

Basically, day trading firms differ from traditional brokerage houses, and even online brokerage companies, in one fundamental way—they offer their customers direct, electronic access to stock markets. A handful even offers real-time access, which means traders see the market just as it really is at that second. Traditional brokerages work with the customer and then place the trade orders through middlemen, called market makers. The customer is never involved directly in the trade, and it takes some time for the trade to be completed. Not so with day trading—the customer is actively involved, and trades are completed immediately. With nearly 2 million people making up to 100 stock trades per year, and 250,000 people making more than 400 trades annually, there is a large, and growing, market for the day trading firms to work with. The firms target the investors who make the most trades. Since trades can cost anywhere from \$15 to \$25 per trade, the day trading firm makes more money as an investor makes more trades, no matter what happens to the customer's stock. The customer can lose money, but the firm can never lose, thanks to the per trade fee.

With its "get rich quick" aura and seeming simplicity, day trading took the securities world by storm in the late 1990s. Everyone from professional stock brokers to the average Joe on the street tried to become a millionaire when stock markets soared at the end of the twentieth century. More than 100 companies provided day trading services in 2000, ranging from long-time brokers such as

Charles Schwab to dot.com companies that were gone in a month. Although the total number of day traders is still only a fraction of the total number of people who invest in the stock market, James Lee of the ETA estimates that the actions of day traders may account for 10 to 15 percent of the total daily dollar volume on the NASDAQ stock exchange on any given day. In addition to being a different type of investor, the people involved in day trading treat stock a different way. In the past, according to Fortune, the average length of time a stock share was held by an investor was two years; today, it's five months.

One of the key differences between day trading and regular stock investing is the knowledge required. In regular investing, stock brokers and others who invest spend days, even weeks, studying a particular company and learning all there is to know about it. Brokers will devote a career to one particular market segment, such as technology stocks, and much of their time is spent learning about the companies in that segment. When a regular investor makes a stock purchase, it is likely because he or she is knowledgeable about a company and expects its stock to do well in the long run—the next year to the next 20 years, perhaps.

In day trading, the investor often knows literally nothing about the companies that he or she is purchasing. "Who cares what [a company's] earnings are?" said Charles Kim of the day trading firm Swift Trade Securities in Canadian Business. "We don't." All the day trader knows is that there is some piece of information (or, often, a hunch) that has become available very recently that indicates that a certain company's stock is about to go up in the next minute, hour, or day. The day trader then purchases that stock, holds on to it until a suitable profit has been made (or, disastrously, money has been lost), then sells it. Stocks are rarely held overnight. Nothing is ever known about the company that was just traded. Essentially the day trader is gambling, betting that the next short-term price fluctuation will be in his or her favour and result in a profit.

As long as stocks were doing well, day trading was a popular, money-making activity for many people, or so it seemed. A 2000 study by the North American Securities Administrators Association, quoted in Forbes, found that "77 percent of day traders lose money. And of those who did profit, the average was just \$22,000 over the space of eight months. Of the 124 accounts surveyed, only two—people, not percent—netted \$100,000 or better. The highest was \$160,000." And that was at a time (1998-1999) when the stock market was soaring. Now that it has come back down, there is even less money being made.

Because the real profits from day trading do not necessarily match the profits that some firms boast of in their advertisements, companies in the industry

are closely scrutinized. NASD Regulation, Inc., the regulatory arm of NASD that polices the securities industry, studied 22 day trading firms in 1999 and came up with some disturbing conclusions. They found improprieties in "advertising, Regulation T and margin lending, registration of individuals, short sales, and supervision." As of early 2001, however, NASDR had only formally punished one day trading firm, fining it \$25,000 for failing to properly train and certify the 14 individuals it had working as traders. Other agencies, such as the New York Stock Exchange, have begun to take action against unscrupulous day trading firms as well, and more action is expected. Several states have also conducted their own investigations of day trading firms within their borders and have taken enforcement actions against the worst offenders. However, the biggest risk to investors still seems to be simply losing money in the highly volatile stock market.

2.2.3 The History of Day Trading

Day trading has its origins in the birth of the computerized, over-the-counter NASD, which occurred in 1971. Fourteen years later, NASD created the Small-Order Execution System, which made it easy for individuals to execute stock trades automatically, as long as the orders were for 1,000 shares or less. Trades placed through SOES, as the system is known, bypassed the phone lines used to make most trades and placed orders in a matter of seconds, instead of minutes. While SOES users may not buy or sell the same stock during a five-minute period, there were still a group of daring investors who thought they could use SOES to make rapid stock transactions to make a great deal of money, and thus day trading was born.

The modern day trader is no longer limited to SOES. Indeed, the most popular tool for the day trader today is the electronic communication networks, or ECNs, which are internal networks set up to handle groups of customers who make large blocks of stock trades. All the members of one ECN may trade directly with other members of their network, placing buy or sell orders electronically. This has become the main tool of the day trader. To best use that tool, day traders watch the NASDAQ Level II screen religiously on their computers. The best bid on any given stock is displayed on the NASDAQ Level I screen, while the Level II screen displays all bid prices for a selected stock. This increased amount of information allows the trader to better gauge what is happening with the stock: What are the high and low bids? How many bids have been made? Are the

number of bids increasing or decreasing? This information is invaluable as the day trader decides which stock to buy.

With the growth of any money-making activity comes the hangers-on, and that is true for day trading as well. There is a large industry that relies on day traders, from book and newsletter publishers to online advice columns and investment advisors. There are also training programs, on-site seminars, software, stock picking systems, and much more. All of these related industries are unregulated and full of hype, shady deals, and bad advice. It is definitely a "buyer beware" situation, but that fits in well with day trading in general.

Day trading refers to the practice of buying and selling financial instruments within the same trading day such that all positions will usually (not necessarily always) be closed before the market close of the trading day. This is the opposite of After-hours trading. Traders that participate in day trading are called day traders.

Some of the more commonly day-traded financial instruments are stocks, stock options, currencies, and a host of futures contracts such as equity index futures, interest rate futures, and commodity futures.

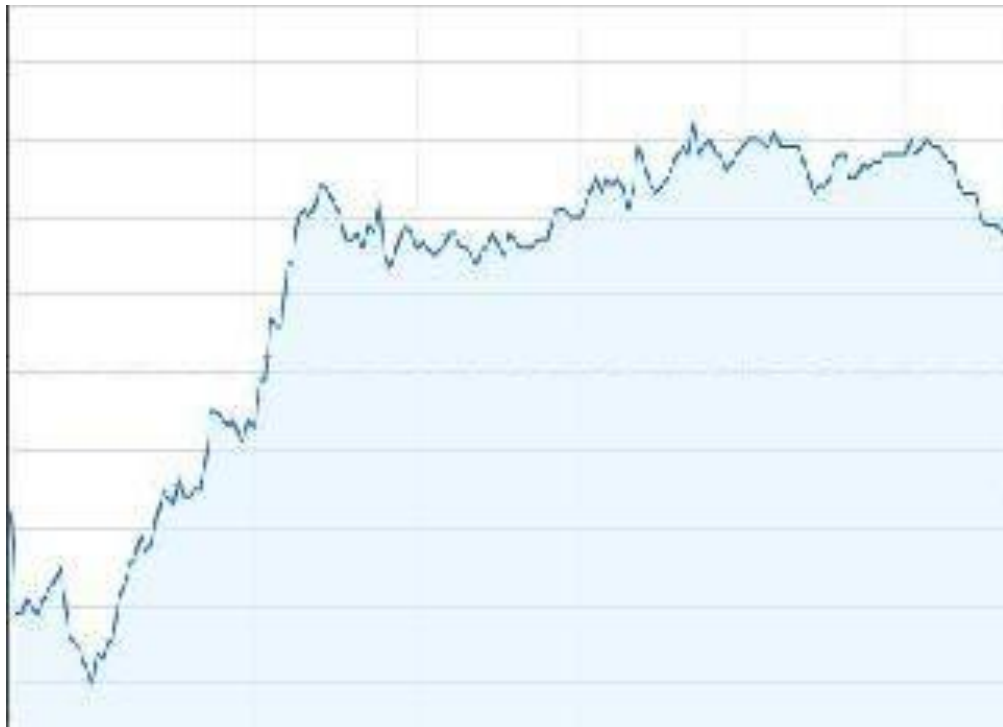


Fig 2.1 The price of financial instruments (here, stocks) can vary greatly within the same trading day.

Check your progress 1

1. Which is correct for day trading?
 - a. Day trading has more traders as compared to trader who keep stocks for long
 - b. Day trading always give profit
 - c. Day trading is risky
 - d. all of above

2.3 Characteristics of Day Trading

Trade Frequency

Although collectively called day trading, there are many sub-trading styles within day trading. A day trader is not necessarily very active. Depending on one's trading strategy, the number of trades made in a day may vary from one, to dozens or more.

Some day traders focus on very short or short-term trading, in which a trade may last seconds to a few minutes. They buy and sell many times in a day, trading very high volumes daily and therefore receiving big discounts from the brokerage.

Some day traders focus only on momentum or trends. They are more patient and wait for a ride on the strong move which may occur on that day. They make far fewer trades than the aforementioned traders.

Many day traders sell their positions before the market close of the trading day to avoid the risk of price gaps (differences between the previous day's close and the next day's open price) at the open.

2.3.1 Profit and Risks

Because of the nature of financial leverage and the rapid returns that are possible, day trading can be extremely profitable, and high-risk profile traders can generate huge percentage returns.

Because of the high profits (and losses) that day trading makes possible, these traders are sometimes portrayed as "bandits" or "gamblers" by other investors. Some individuals, however, make a consistent living day trading.

Even when a position has made a profit, the trader has to offset the transaction costs and the interest on the margin. It is commonly stated that 80-90% of day traders lose money. An analysis of the Taiwanese stock market suggests that "less than 20% of day traders earn profits net of transaction costs".

2.3.2 History

One of the first steps to make day trading of shares potentially profitable was the change in the commission scheme. In 1975, the United States Securities and Exchange Commission (SEC) made fixed commission rates illegal, giving rise to discount brokers offering much reduced commission rates.

- **Financial Settlement**

Financial settlement periods used to be much longer: Before the early 1990s at the London Stock Exchange, for example, stock could be paid for up to 10 working days after it was bought, allowing traders to buy (or sell) shares at the beginning of a settlement period only to sell (or buy) them before the end of the period hoping for a rise (or fall) in price.

- **Electronic Communication Networks**

The systems by which stocks are traded have also evolved, the second half of the twentieth century having seen the advent of Electronic Communication Networks (ECNs). These are essentially large proprietary computer networks on which brokers could list a certain amount of securities to sell at a certain price (the asking price or "ask") or offer to buy a certain amount of securities at a certain price (the "bid").

- **Technology Bubble (1997–2000)**

In 1997, the SEC adopted "Order Handling Rules" which required market-makers to publish their best bid and ask on the NASDAQ. Another reform made during this period was the "Small Order Execution System", or "SOES", which required market makers to buy or sell, immediately, small orders (up to 1000 shares) at the MM's listed bid or ask.



Fig 2.2 The evolution of average NASDAQ share prices between 1994 and 2004

Check your progress 2

1. Which is correct for day trading?
 - a. Day traders are not very active
 - b. Day trading always give profit
 - c. Day traders focus on long term trading
 - d. all of above

2.4 Techniques Use in Day Trading

The following are several basic strategies by which day traders attempt to make profits. Besides these, some day traders also use contrarian (reverse) strategies (more commonly seen in algorithmic trading) to trade specifically against irrational behaviour from day traders using these approaches.

Some of these approaches require shorting stocks instead of buying them normally: the trader borrows stock from his broker and sells the borrowed stock, hoping that the price will fall and he will be able to purchase the shares at a lower price.

1) Trend Following

Trend following, a strategy used in all trading time frames, assumes that financial instruments which have been rising steadily will continue to rise, and vice versa with falling.

2) Range Trading

A range trader watches a stock that has been rising off a support price and falling off a resistance price. That is, every time the stock hits a high, it falls back to the low, and vice versa.

3) Scalping

Scalping originally referred to spread trading. Scalping is a trading style where small price gaps created by the bid-ask spreads are exploited. It normally involves establishing and liquidating a position quickly, usually within minutes or even seconds.

4) Rebate Trading

Rebate Trading is an equity trading style that uses ECN rebates as a primary source of profit and revenue, considering the payment structure of ECN paying per share. Traders maximize their returns by trading low priced, high volume stocks. This enables them to trade more shares and have more liquidity with a set amount of capital.

5) News Playing

Playing news is primarily the realm of the day trader. The basic strategy is to buy a stock which has just announced good news, or short sell on bad news. Such events provide enormous volatility in a stock and therefore the greatest chance for quick profits (or losses).

6) Cost

a) Trading Equipment

Some day trading strategies (including scalping and arbitrage) require relatively sophisticated trading systems and software. This software can cost up to \$45,000 dollars or more.

b) Brokerage

Day traders do not use retail brokers, slow to execute trades, and with higher commissions than direct access brokers, who allow the trader to send their orders directly to the ECNs instead of indirectly through brokers.

c) Commission

Commissions for direct-access brokers are calculated based on volume. The more one trades, the cheaper the commission is.

d) Spread

The numerical difference between the bid and ask prices is referred to as the spread between them. Most worldwide markets operate on a Bid and ask based system.

7) Market Data

Real-time market data is necessary for day traders, rather than using the delayed (by anything from 10 to 60 minutes, per exchange rules market data that is available for free.

Check your progress 3

1. Commissions for direct access brokers are calculated based on:

- | | |
|--------------------|------------------|
| a. amount of stock | c. type of stock |
| b. volume of stock | d. all of above |

2.5 Regulations and Restrictions

Day Trading: An Introduction

Day trading is defined as the buying and selling of a security within a single trading day. This can occur in any marketplace but is most common in the foreign-exchange (forex) market and stock market. Typically, day traders are well educated and well-funded. They utilize high amounts of leverage and short-term trading strategies to capitalize on small price movements in highly liquid stocks or currencies. Day traders serve two critical functions in the marketplace - they keep the markets running efficiently via arbitrage and they provide much of the markets' liquidity (especially in the stock market). This article will take an objective look at day trading, which does it and how it is done.

The Controversy

Search "day trading" on Google and you will see why there is controversy! The profit potential of day trading is perhaps one of the most debated (and misunderstood) topics on Wall Street. Countless internet scams have capitalized

on this confusion by promising enormous returns in a short period. Meanwhile, the media continues to promote this type of trading as a get-rich-quick scheme that always works. The truth lies somewhere in the middle. There are those who engage in this type of trading without sufficient knowledge (or some even admittedly for a gambler's high!); however, there are day traders who are able to make a successful living.

Many professional money managers and financial advisors shy away from day trading, arguing that in most cases the reward does not justify the risk. They often cite that no day trader is world renown, whereas icons like Warren Buffett and Peter Lynch (see *The Greatest Investors*) are a testament to the success that can be attained by more traditional forms of investing. Conversely, those who do day trade insist there is profit to be made. They say the success rate is inherently lower as a result of the higher complexity and necessary risk of day trading, combined with all the related scams.

Overall, the street remains divided on the issue. At the very least they agree that day trading is not for everyone and involves significant risks. Moreover, it demands an in-depth understanding of how the markets work and various strategies for profiting in the short term. Now we'll take a look at the various aspects of day trading.

Characteristics of a Day Trader

This article will focus on professional day traders - that is, those that trade for a living, not simply as a hobby or for a "gambling high". These traders are typically well-established in the field and have in-depth knowledge of the marketplace. Here are some of the prerequisites to day trading:

- **Knowledge and Experience in the Marketplace** - Individuals who attempt to day trade without an understanding of market fundamentals often end up losing money.
- **Sufficient Capital day trading** - Day traders use only risk capital, which they can afford to lose. Not only does this protect them from financial ruin, but it also helps eliminate emotion from their trading. A large amount of capital is often necessary to capitalize effectively on intra-day price movements.
- **A Strategy** - A trader needs an edge over the rest of the market. There are several different strategies that day traders utilize, including: swing trading, arbitrage

One cannot expect to make money as well as trading news, among others. These strategies are refined until they produce consistent profits and effectively limit losses

Strategy Breakdown

Type	Risk	Reward
Swing Trading	High	High
Arbitrage	Low	Medium
Trading News	Medium	Medium
Mergers & Acquisitions	Medium	High

- **Discipline** - A profitable strategy is useless without discipline. Many day traders end up losing a lot of money because they fail to make trades that meet their own criteria. As they say, "Plan the trade and trade the plan." Success is impossible without discipline.

Day Trading for a Living

There are two primary divisions of professional day traders: those who work alone and/or those who work for a larger institution. Most day traders who trade for a living work for a large institution. The fact is these people have access to things individual traders could only dream of: a direct line to a dealing desk, large amounts of capital and leverage, expensive analytical software and much more. These traders are typically the ones looking for easy profits that can be made from arbitrage opportunities and news events. The resources to which they have access allow them to capitalize on these less risky day trades before individual traders can react. Individual traders often manage other people's money or simply trade with their own. Few of them have access to a dealing desk; however, they often have strong ties to a brokerage (due to the large amounts of commission spending) and access to other resources. However, the limited scope of these resources prevents them from competing directly with institutional day traders; instead, they are forced to take more risks. Individual traders typically day trade using technical analysis and swing trades - combined with some leverage - to generate adequate profits on such small price movements in highly liquid stocks.

Trading

Day trading demands access to some of the most complex financial services and instruments in the marketplace. Day traders require:

- **Access to the Trading Desk**

This is usually reserved for traders working for larger institutions or those who manage large amounts of money. The dealing desk provides these traders with instantaneous order executions, which can become important, especially when sharp price movements occur. For example, when an acquisition is announced, day traders looking at merger arbitrage can get their orders in before the rest of the market, taking advantage of the price differential.

- **Multiple News Sources**

In the movie "Wall Street" Gordon Gekko says that 'information is the most important commodity when trading'. News provides the majority of opportunities day traders capitalize on, so it is imperative to be the first to know when something big happens. The typical trading room contains access to the Dow Jones Newswire, televisions showing CNBC and other news agencies, as well as software that constantly analyses various other news sources for important stories.

- **Analytical Software**

Trading software is an expensive necessity for most day traders. Those who rely on technical indicators or swing trades rely more on software than news. This software typically contains many features, including:

- **Automatic pattern recognition**

This means that the trading program identifies technical indicators like flags, channels and even more complex indicators like Elliott Wave patterns.

- **Genetic and neural applications**

These are programs that utilize neural networks and genetic algorithms to perfect trading systems to make more accurate predictions of future price movements.

- **Broker integration**

Some of these applications even interface directly with the brokerage, which allows for instantaneous and even automatic execution of trades. This is helpful for eliminating emotion from trading and improving execution times.

- **Back testing**

This allows traders to look at how a certain strategy would have performed in the past in order to predict more accurately how it will perform in the future (although past performance is not always indicative of future results).

Combined these tools provide traders with an edge over the rest of the marketplace. It is easy to see why, without them, so many inexperienced traders lose money.

Check your progress 4

1. Which information is correct in context to day traders?
 - a. They are intelligent
 - b. They are more funded
 - c. They work on more stocks
 - d. All of above

2.6 Jargon use in Day trading

Bid Price

The price a buyer is willing to pay for a security. This is one part of the bid with the other being the bid size, which details the amount of shares the investor, is willing to purchase at the bid price. The opposite of the bid is the ask price, which is the price a seller is looking to get for his or her shares.

The use of bid and ask is a fundamental part of the market system, as it details the exact amount that you could buy or sell at any point in time. Remember that the current price is not the price for which you can purchase the security, but the price at which the shares last traded hands. If you want to get an idea of the price for which you can buy a security, you need to look at the bid and ask prices because they will often differ from the current price.

This article is about financial bidding.

A bid price is the highest price that a buyer (i.e., bidder) is willing to pay for a good. It is usually referred to simply as the "bid."

In bid and ask, the bid price stands in contrast to the ask price or "offer", and the difference between the two is called the bid/offer spread.

An unsolicited bid or offer is when a person or company receives a bid even though they are not looking to sell. A bidding war is said to occur when a large number of bids are placed in rapid succession by two or more entities, especially when the price paid is much greater than the ask price, or greater than the first bid in the case of unsolicited bidding.

In the context of stock trading on a stock exchange, the bid price is the highest price a buyer of a stock is willing to pay for a share of that given stock. The bid price displayed in most quote services is the highest bid price in the market.

Ask Price

Ask price, also called offer price, offer, or simply ask, is a price a seller of a good is willing to accept for that particular good.

In bid and ask, the term asks price is used in contrast to the term bid price. The difference between the ask price and the bid price is called the spread.

Ask" Price

In the context of the over-the-counter market, the term "ask" refers to the lowest price at which a market maker will sell a specified number of shares of a stock at any given time. The term "bid" refers to the highest price a market maker will pay to purchase the stock.

The ask price (also known as the "offer" price) will almost always be higher than the bid price. Market makers make money on the difference between the bid price and the ask price. That difference is called the "spread".

Stock Exchange

In the context of stock trading on a stock exchange, the ask price is the lowest price a seller of a stock is willing to accept for a share of that given stock. For over-the-counter stocks, the asking price is the best quoted price at which a Market Maker is willing to sell a stock.

Mutual Funds

For mutual funds, the asking price is the net asset value plus any sales charges. It is also called asked price or offering price or ask.

Commodities

The ask price is the lowest price a seller of a commodity is willing to accept for that commodity.

Auctions

In auctions the ask price is the reservation price. Some auctions may not have such a price. This price is the minimum that the seller will agree to for the object being sold.

Check your progress 5

1. Which is correct in case of Ask Price?
 - a. It is called as offer price
 - b. It is the lowest price.
 - c. It is a price which a seller of good willing to accept
 - d. all of above

2.7 Investing - Portfolios and Diversification

It's good to clarify how securities are different from each other, but it's even more important to understand how their different characteristics can work together to accomplish an objective.

The Portfolio

A portfolio is a combination of different investment assets mixed and matched for the purpose of achieving an investor's goal(s). Items that are considered a part of your portfolio can include any asset you own - from real items such as art and real estate, to equities, fixed-income instruments and their cash and equivalents. For the purpose of this section, we will focus on the most liquid asset types: equities, fixed-income securities and cash and equivalents.

An easy way to think of a portfolio is to imagine a pie chart, whose portions each represent a type of vehicle to which you have allocated a certain portion of your whole investment. The asset mix you choose according to your aims and strategy will determine the risk and expected return of your portfolio.

Basic Types of Portfolios

In general, aggressive investment strategies - those that shoot for the highest possible return - are most appropriate for investors who, for the sake of this potential high return, have a high risk tolerance (can stomach wide fluctuations in

value) and a longer time horizon. Aggressive portfolios generally have a higher investment in equities.

The conservative investment strategies, which put safety at a high priority, are most appropriate for investors who are risk averse and have a shorter time horizon. Conservative portfolios will generally consist mainly of cash and cash equivalents, or high-quality fixed-income instruments.

To demonstrate the types of allocations that are suitable for these strategies, we'll look at samples of both a conservative and a moderately aggressive portfolio.

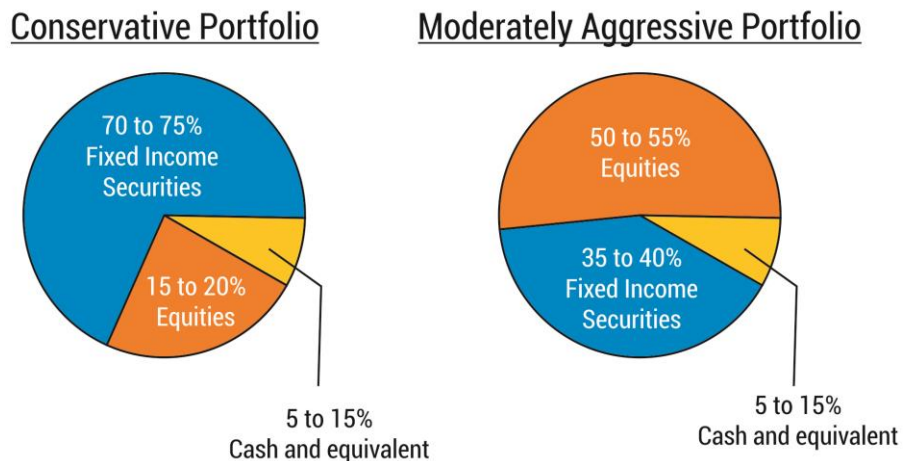


Fig 2.3 Types of Portfolios

Note that the terms cash and the one market refer to any short-term, fixed-income investment. Money in a savings account and a certificate of deposit (CD), which pays a bit higher interest, are examples. (You can read more about the money market in the Money Market Tutorial.)

The main goal of a conservative portfolio strategy is to maintain the real value of the portfolio, or to protect the value of the portfolio against inflation. The portfolio you see here would yield a high amount of current income from the bonds and would also yield long-term capital growth potential from the investment in high quality equities.

A moderately aggressive portfolio is meant for individuals with a longer time horizon and an average risk tolerance. Investors who find these types of portfolios attractive are seeking to balance the amount of risk and return contained within the fund.

The portfolio would consist of approximately 50-55% equities, 35-40% bonds, 5-10% cash and equivalents.

You can further break down the above asset classes into subclasses, which also have different risks and potential returns. For example, an investor might divide the equity portion between large companies, small companies and international firms. The bond portion might be allocated between those that are short-term and long-term, government versus corporate debt, and so forth. More advanced investors might also have some of the alternative assets such as options and futures in the mix. As you can see, the number of possible asset allocations is practically unlimited.

Why Portfolios?

It all centers on diversification. Different securities perform differently at any point in time, so with a mix of asset types, your entire portfolio does not suffer the impact of a decline of any one security. When your stocks go down, you may still have the stability of the bonds in your portfolio.

There have been all sorts of academic studies and formulas that demonstrate why diversification is important, but it's really just the simple practice of "not putting all your eggs in one basket." If you spread your investments across various types of assets and markets, you'll reduce the risk of catastrophic financial losses.

Check your progress 6

1. Which among the following is not a liquid asset?

- | | |
|----------------------------|-----------|
| a. equities | c. cash |
| b. fixed income securities | d. cheque |

2.8 Five Investing Pitfalls to Avoid, According to Investor's Business Daily

Big stock market winners look a lot alike -- they have strong earnings and sales growth, a dynamic new product or service, leading price performance and rising mutual fund ownership. Interestingly, successful investors share similar traits.

Top investors always keep their losses small; they never average down in price; they don't immediately shun a stock because it has a high price-earnings

ratio (P/E Ratio); and finally, they pay attention to the general health of the market when they buy and sell stocks.

Yet, at the same time, many investors still operate using unsound principles. Successful investors learn to avoid the common pitfalls, and follow these insights that can put you well on your way to becoming a better investor.

A) Buying Low-Priced Stocks

What sounds better? Buying 1,000 shares of a \$1 stock or buying 20 shares of a \$50 stock? Most people would probably say the former because it seems like a bargain, with more opportunity for big increases from owning more shares. But the money you make in a stock isn't based on how many shares you own. It's based on the amount of money invested.

Many investors have a love affair with cheap stocks, but low-priced stocks are generally missing a key ingredient of past stock market winners: institutional sponsorship.

A stock can't make big gains without the buying power of mutual funds, banks, insurance companies and other deep-pocketed investors fuelling their price moves. It's not retail trades of 100, 200 or 300 shares that cause a stock to surge higher in price, it's big institutional block share trades of 10,000, 20,000 or more that cause these great jumps in price when they buy -- as well as great price drops when they sell.

Institutional investors account for about 70% of the trading volume each day on the exchanges, so it's a good idea to fish in the same pond as they do. Stocks priced at \$1, \$2 or \$3 a share is not on the radar screens of institutional investors. Many of these stocks are thinly traded so it's hard for mutual funds to buy and sell big volume shares.

Remember: Cheap stocks are cheap for a reason. Stocks sell for what they're worth. In many cases, investors that try to grab stocks on the cheap don't realize that they're buying a company mired in problems with no institutional sponsorship, slowing earnings and sales growth and shrinking market share. These are bad traits for a stock to have. Institutions have research teams that seek out great opportunities, and because they buy in huge quantities over time, consider piggybacking their choices if you find these fund managers have better-than-average performance.

The reality is that your prospect of doubling your money in \$1 stock sure sounds good, but your chances are better of winning the lottery. Focus on institutional quality stocks.

B) Avoiding Stocks With High P/E Ratios

"Focus on stocks with low P/E ratios. They're attractively valued and there's a lot of upside." How many times have you heard this statement from investment pros?

While it's true that stocks with low P/E ratios can go higher, investors often misuse this valuation metric. Leaders in an industry group often trade at a higher premium than their peers for a simple reason: They're expanding their market share faster because of outstanding earnings and sales growth prospects.

Stocks on your watch list should have the traits of past big stock market winners we mentioned earlier: leading price performance in their industry group, top-notch earnings and sales growth and rising fund ownership, to name a few. A dynamic new product or service doesn't hurt either.

Stocks with "high" P/E ratios share a common trait: their performance shows there's plenty of bullishness about the company's future prospects. For example: In Aug 2003, stun-gun maker Taser International had a P/E of 44 before a 900% increase. At the time, the market was bullish about the firm's earnings and sales growth prospects. The market turned out to be right. For five straight quarters, Taser has posted triple-digit earnings and sales gains.

More great examples come from the medical, retail, and oil and gas sector, which were all strong performers in the 2003-2004 period. The table below shows leading stocks in the sectors that staged big price runs from seemingly high P/E ratios. In every case, it was explosive fundamentals that drove their stock price.

At end-Oct 2004, the average P/E Ratio of stocks in the S&P 500 Index was around 17.

	P/E Ratio	Price Gain through Oct. 29, '04
Retail		
Urban Outfitters (Jan. 2004)	33	104%
Coach (May 2003)	31	90%
Bebe Stores (July 2003)	28	109%
Oil and Gas		
Ultra Petroleum (Aug. 2003)	35	258%
Quicksilver Res. (Nov. 2003)	35	113%
Medical		
Laserscope (May 2003)	139	290%
Palomar Medical (Aug. 2003)	64	193%
Immucor (April 2004)	40	88%

*Percentage gains calculated as of October 29, 2004

Fig 2.4 Ratio of stocks

C) Letting Small Losses Turn into Big Ones

Insurance policies help us minimize risk when it comes to our health, home or car. In the stock market, most people don't even think about buying insurance policies with individual stocks but it's a good practice.

Cut your losses in any stock at 7% or 8% and you'll never get hit with a big loss. This is your insurance policy. If you buy stocks at the right time, they should never fall 7-8% below your purchase price.

A small loss in a stock can easily be overcome. It's the big ones that can do serious damage to a portfolio. Take a 50% loss on a stock, and it would need to rise 100% to get back to break-even. But if you cut your losses at 7% or 8%, a single 25% gain can wipe out three 7%-8% losses.

Here's a set of hypothetical trades to illustrate the point. Even if you had made these seven trades over a period of time - and taken losses on five of them - you would still come out ahead by more than \$3,700. That's because the two stocks that worked out resulted in a combined profit of \$5,500. And the five losses - all capped at 7% or 8% - added up to \$1,569.

Stock	Shares	Cost/Share	Sell Price	Profit/Loss	%Profit/Loss
A	100	\$50	\$46	(\$400)	-8%
B	100	\$43	\$40	(\$300)	-7%
C	100	\$57	\$98	\$4,100	72%
D	50	\$24	\$22	(\$100)	-8%
E	30	\$110	\$101	(\$279)	-8%
F	70	\$85	\$78	(\$490)	-8%
G	100	\$65	\$79	\$1,400	22%
Total				\$3,731	

Fig 2.5 Letting Small Losses Turn into Big Ones

The rationale for that 7% Sell Rule was never clearer than in the bear market that began in Mar 2000. It caused unnecessary, severe damage to many investors' portfolios. Small losses in tech stocks snowballed into huge ones. Some stocks lost 70%-80% or more of their value. Some will never reclaim their old highs. Others may, but it'll be a long road back. All successful investors share one trait: they firmly recognize the importance of protecting hard-earned capital by selling fast when a stock declines 7% or 8% from where they bought it.

If a stock you own starts to fall on expanding trading volume, it's usually better to sell first and ask questions later, rather than the other way around. Keep losses small to avoid severe damage. You can always re-enter the game if you've only lost 7%. Don't ever look back after a smart sell, even if the stock rebounds. You have no way of knowing its future, so you are best off reacting to what your

stock is telling you right now. Learning this trait is hard -- but it will save you a great deal in the long run.

D) Averaging Down

Averaging down means you're buying stock as the price falls in the hopes of getting a bargain. It's also known as throwing good money after bad or trying to catch a falling knife. Either way, trying to lower your average cost in a stock is another risky proposition.

For example, take Amazon.com between June and Oct of 2004. Its chart revealed much institutional selling by mutual funds and other big investors.

In June, it was a \$54 stock. In July, it was a \$45 stock. Investors who bought in at \$45 may have thought they were getting a bargain, but they weren't paying attention to multiple heavy-volume declines in the stock. What's the sense of buying a stock when mutual funds and other big investors are selling big blocks of shares? That's a tough tide to swim against.

When Amazon released its earnings on Oct 21, it fell another 10% to around \$37. In general, stock charts tell bullish or bearish stories long before headlines do. In Amazon's case, heavy volume declines between July 8 to 23 told a bearish story.

E) Buying Stocks in a Down Market

Some investors don't pay any attention to the current state of the market when they buy stocks. And that's a mistake.

The goal is to buy stocks when the major indexes are showing signs of accumulation (buying: heavy volume price increases) and to sell when they're showing signs of distribution (selling: heavy volume price declines). Three-fourths of all stocks follow the market's trend, so watch it each day, and don't go against the trend. It's not hard to tell when the indexes start to show signs of duress.

Distribution days will start to crop up in the market where the indexes close lower on heavier volume than the day before. In this case, a strong market opening will fizzle into weak closes. And leading stocks in the market's leading industry groups will start to sell off on heavy volume. This is exactly what happened at the start of the bear market in Mar 2000.

When you're buying stocks, make sure you're swimming with the market tide, not against it.

F) CAN SLIM™ and the IBD Way

If you are a reader of Investor's Business Daily (IBD) or any other of William O'Neil's writings, you may have noticed that these five pitfalls compliment the CAN SLIM methodology of stock selection. By avoiding low-priced stocks, looking beyond the P/E, implementing a stop-loss plan, not averaging down and monitoring the overall market, you'll be well on your way to a sound investing strategy based on years of studies and research from IBD.

Check your progress 7

1. Which statement is correct for Investor?
 - a. To buy stocks of more value as compared to penny value stocks
 - b. To buy shares have high P/E ratio
 - c. To do averaging in stocks
 - d. All of above

2.9 Speculation

Etymology

The Etymology of the word is as follows; from O.Fr. Speculation, from L.L. speculation (nom. speculation) "contemplation, observation," from L. speculatus, pp. of specularis "observes," from specere "to look at, view". Speculator in the financial sense is first recorded 1778. Speculate is a 1599 back-formation.

What is significant to note is the change from a passive to an active form of use. Specifically from a strict observer to one who contemplates what they observe then further to one who contemplates and acts on what they observe.

With these changes, the word as now commonly used, describes one who observes an object, event, or situation and takes some form of action with regard to the observed, all the while aware they may not know all the facts or factors regarding that which they observe. E.g. the financial speculator, one who understands and accepts he may not know all the facts or risks involved with a venture, yet chooses to invest his capital in the venture for the possibility of receiving greater capital in return.

The process of selecting investments with higher risk in order to profit from an anticipated price movement.

Speculation should not be considered purely a form of gambling, as speculators do make informed decision before choosing to acquire the additional risks. Additionally, speculation cannot be categorized as a traditional investment because the acquired risk is higher than average.

More sophisticated investors will also use a hedging strategy in combination with their speculative investment in order to limit potential losses.

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss. Speculation is a necessary and productive activity. It can be profitable over the long term when engaged in by professionals, who often limit their losses through the use of various Hedging techniques and devices, including Options trading, Selling Short, Stop Loss Orders and transactions in Futures Contracts. The term speculation implies that a business or investment risk can be analysed and measured, and its distinction from the term Investment is one of degree of risk. It differs from gambling, which is based on random outcomes.

Practice of engaging in business in order to make quick profits from fluctuations in prices, as opposed to the practice of investing in a productive enterprise in order to share in its earnings. The term is sometimes applied to investment in a venture involving abnormal risks along with the chance to earn unusually large profits, but most speculation consists in the buying and selling of commodities and stocks and bonds with the object of taking advantage of rapid changes in price. While the investor seeks to protect his principal as it yields a moderate return, the speculator sacrifices the safety of his principal in hopes of receiving a large, rapid return. The practice is defended as tending to stabilize prices and guide investment; it is attacked as the mechanism of financial crisis and panic when prices decline rapidly and as an inflationary factor when a commodity is in shortage and speculation drives up its price.

Public outcry over speculation has had an important political impact in several periods of U.S. history. During the progressive era in the late 19th and early 20th cent., speculation on Wall Street helped reformers led to landmark legislation regulating big business. Following the crash of 1929, which was widely blamed on the speculative abuses of the 1920s, the Roosevelt administration passed legislation regulating Wall Street and the banking industry. In the 1980s and early 1990s, critics attacked junk bonds, corporate mergers, and the savings and loan industry as examples of speculative abuses that reduced America's economic competitiveness. In the late 1990s speculation was most

evident in the enormously high market value attained by some Internet and computer company stocks and in the on-line day trading of stocks.

Speculation areas

Convention, and especially satire, sometimes portrays speculators comically as speculating in pork bellies (in which a real market and real speculators exist) and often "losing their shirts" or making a fortune on small market changes. Speculation exists in many such commodities, but, if measured by value, the most important markets deal in futures contracts and other derivatives involving leverage that can transform a small market movement into a huge gain or loss.

Check your progress 8

1. Which is correct in case of Speculation?
 - a. It is called as gambling
 - b. It should be always used
 - c. It is more effective and to be followed every time
 - d. It give chance of making more money

2.10 Type of Speculators

Most non-professional traders lose money on speculation, while those who do make money tend to become professionals. Occasionally some dramatic event will occur, such as the effort of the Hunt brothers to corner the silver market or the currency speculations of George Soros or the speculative trading of Nick Lee son, which caused the collapse of Barings Bank.

By some definitions, most long-term investors, even those who buy and hold for decades may be classified as speculators, excepting only the rare few who are not primarily motivated by eventually selling at a good profit. Some dedicated speculators are distinguished by shorter holding times, the use of leverage, by being willing to take short positions as well as long positions (in markets where the distinction can be reasonably made). A degree of speculation exists in a wide range of financial decisions, from the purchase of a house to a bet on a horse; this is what modern market economists call "ubiquitous speculation."

In Security Analysis, Benjamin Graham gave a definition of speculation in relation to investment: "An investment operation is one which, upon thorough

analysis, promises safety of principal and a satisfactory return. Operations not meeting these requirements are speculative."

Check your progress 9

1. Which is an example of Speculation?

- a. purchase of house
- b. bet on a horse
- c. buying more stock
- d. all of above

2.11 The Economic Benefits of Speculation

The service provided by speculators to a market is primarily that by risking their own capital in the hope of profit, they add liquidity to the market and make it easier for others to offset risk, including those who may be classified as hedgers and arbitrageurs.

If a certain market - for example, pork bellies - had no speculators and then only producers (pig farmers) and consumers (butchers, etc.) would participate in that market. With fewer players in the market, there would be a larger spread between the current bid and ask price of pork bellies. Any new entrant in the market who wants to either buy or sell pork bellies will be forced to accept an illiquid market and market prices that have a large bid-ask spread or might even find it difficult to find a co-party to buy or sell to. A speculator (e.g. a pork dealer) may exploit the difference in the spread and, in competition with other speculators, reduce the spread, thus creating a more efficient market.

Another example of the value of speculators is the ability of a pig farmer to sell his pork on a futures exchange at a known price ahead of its production.

Check your progress 10

1. If a speculator observes current 90-day forward rate on rupee as 65= 1 dollar, but expects spot rate in 90-days will be 75 = 1 dollar, then the speculator would now
 - a. buy rupee on forward market.
 - b. buy dollar in the forward market.
 - c. sell rupee in forward market.
 - d. buy dollar on spot market and sell rupee on 90-day forward market

2.12 Some Side Effects

Auctions are a method of squeezing out speculators from a transaction, but they have their own perverse effects; see winner's curse. The winner's curse is however not very significant to markets with high liquidity for both buyers and sellers, as the auction for selling the product and the auction for buying the product occur simultaneously, and the two prices are separated only by a relatively small spread. This mechanism prevents the winner's curse phenomenon from causing mispricing to any degree greater than the spread.

Speculative purchasing can also create inflationary pressure, causing particular prices to increase above their "true value" (real value - adjusted for inflation) simply because the speculative purchasing artificially increases the demand. Speculative selling can also have the opposite effect, causing prices to artificially decrease below their "true value" in a similar fashion. In various situations, price rises due to speculative purchasing cause further speculative purchasing in the hope that the price will continue to rise. This creates a positive feedback loop in which prices rise dramatically above the underlying "value" or "worth" of the items. This is known as an economic bubble. Such a period of increasing speculative purchasing is typically followed by one of speculative selling in which the price falls significantly, in extreme cases this may lead to crashes. Overall, the participation of speculators in financial markets tends to be accompanied by significant increase in short-term market volatility. This is not necessarily a bad thing, as heightened level of volatility implies that the market will be able to correct perceived mispricings more rapidly and in a more drastic manner.

Quotes About: Speculation

Quotes:

"A speculator is a man who observes the future, and acts before it occurs." - Bernard M. Baruch

"Another great evil arising from this desire to be thought rich; or rather, from the desire not to be thought poor, is the destructive thing which has been honoured by the name of speculation; but which ought to be called Gambling." - William Cobbett

"The narrower the mind, the broader the statement." - Ted Cook

"I never guess. It is a shocking habit -- destructive to the logical faculty." - Sir Arthur Conan Doyle

"Speculation is only a word covering the making of money out of the manipulation of prices, instead of supplying goods and services." - Henry Ford

"If the world were good for nothing else, it is a fine subject for speculation." - William Hazlitt

Speculation, in the narrow sense of financial speculation, involves the buying, holding, selling, and short-selling of stocks, bonds, commodities, currencies, collectibles, real estate, derivatives, or any valuable financial instrument to profit from fluctuations in its price as opposed to buying it for use or for income via methods such as dividends or interest. Speculation or agitate represents one of three market roles in Western financial markets, distinct from hedging, long- or short-term investing, and arbitrage.

Check your progress 11

1. Speculation involves:

- | | |
|------------|-----------------|
| a. buying | c. selling |
| b. holding | d. all of above |

2.13 Let Us Sum Up

In this unit we have learnt that day trading involves both institutional and individual role in stock involvement in marketplace by keeping markets efficient and liquid. It is seen that speculation is a narrow sense of financial speculation which involves buying, holding, selling, and short-selling of stocks, bonds, commodities, currencies, collectibles, real estate, derivatives, or any valuable financial instrument to profit from fluctuations in its price as opposed to buying it for use or for income via methods such as dividends or interest.

It is finding that a stock trader is a person who holds positions for very short time and makes various trades each day. It is seen that many trades are entered and closed out within the same day. Basically, day trading firms differ from traditional brokerage houses, and even online brokerage companies, in one fundamental way—they offer their customers direct, electronic access to stock markets. A handful even offers real-time access, which means traders see the market just as it really is at that second. Traditional brokerages work with the customer and then place the trade orders through middlemen, called market makers.

It is seen that many day traders focus on short or short term trading where trade may last for seconds to few minutes. These traders buy and sell several times in a day with high daily volumes by receiving big discounts from the brokerage. It is known that bid price is the highest price that a buyer is willing to pay for a good. It is usually called as bid. In case of bid and ask, the bid price stands in contrast to the ask price or "offer", and the difference between the two is called the bid/offer spread.

It is found that auctions serves as ask price. This price is the minimum that the seller will agree to for the object being sold. It is noted that speculation exists in commodities which is measured by value where most important markets deal in futures contracts and other derivatives involving leverage that can transform a small market movement into a huge gain or loss.

2.14 Answer for Check Your Progress

Check your progress 1

Answers: (1-c)

Check your progress 2

Answers: (1-a)

Check your progress 3

Answers: (1-b)

Check your progress 4

Answers: (1-d)

Check your progress 5

Answers: (1-d)

Check your progress 6

Answers: (1-d)

Check your progress 7

Answers: (1-d)

Check your progress 8

Answers: (1-a)

Check your progress 9

Answers: (1-d)

Check your progress 10

Answers: (1-b)

Check your progress 11

Answers: (1-d)

2.15 Glossary

1. **Speculation** - The process of selecting investments with higher risk in order to profit from an anticipated price movement.
2. **Day trader** - A speculator who buys and sells securities on the basis of small short-term price movements.
3. **Ask Price** - It is called as offer price which is a price a seller of good willing to accept for particular good.

2.16 Assignment

Explain portfolio. What are the basic types of portfolios?

2.17 Activities

What are jargon uses in day trading? Explain

2.18 Case Study

Discuss the important of day trading and risk involve in Day Trading?

2.19 Further Readings

- 1 Investment Analysis & Portfolio Management – Reilly – 8/e – Thomson / Cengage Learning.
- 2 Security Analysis & Portfolio Management – Fisher and Jordan, 6/e Pearson, PHI.
- 3 Investment science – David G.Luenberger. Oxford.
- 4 Alexander, Sharpe, Bailey – Fundamentals of Investment – Pearson / PHI, 3/e, 2001.
- 5 Portfolio Management – Barua, Verma and Raghunathan (TMH), 1/e, 2003.
- 6 Portfolio Management –S. Kevin – Prentice Hall India.
- 7 Reilly & Brown – Investment Analysis & Portfolio Mgmt. – Thomson Learning, 7/e, 2004.

Block Summary

In this block, students have given knowledge about detail on Dow Theory about Market discounts and its use along with certain phases. The idea about certain day trading risk and trading strategies are well illustrated with which students will get knowledge about trading of stocks. This block allows the students to gain extra knowledge about stock trading that will be of future use to them. The knowledge related to stock speculation will allow them to manipulate stock market trends.

After completing this block, students will be able to know about use of Jargon in stock trading. The idea of investing in portfolio and diversification of funds are well explained. The concepts of Dow Theory market trends are useful for students to work in stock trading atmosphere.

Block Assignment

Short Answer Questions

1. Write the features about Market discounts?
2. How Jargon can be used in Day trading?
3. What is the role of day trader?
4. What are the features of Three-Trend Market according to Dow Theory?
5. State the different types of Speculators?

Long Answer Questions

1. Write short note on Dow Theory?
2. State some features of day trading?
3. What are the various traits about Dow Theory?

Enrolment No.

1. How many hours did you need for studying the units?

Unit No	1	2	3	4
Nos of Hrs				

2. Please give your reactions to the following items based on your reading of the block:

Items	Excellent	Very Good	Good	Poor	Give specific example if any
Presentation Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Language and Style	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Illustration used (Diagram, tables etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Conceptual Clarity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Check your progress Quest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____
Feed back to CYP Question	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____ _____

3. Any Other Comments

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*Education is something
which ought to be
brought within
the reach of every one.*

”

- Dr. B. R. Ambedkar



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Ahmedabad-382 481.