Chapter I

INTRODUCTION – HISTORICAL BACKGROUND OF MUTUAL FUNDS AND STAKE TRADING
MUTUAL FUND

CONCEPT

A mutual fund is an investment vehicle that pools together funds from investors to purchase stocks, bonds or other securities.\textsuperscript{[1]} In other words we can also say that Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal\textsuperscript{[2]}. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciation realised are shared by its unit holders in proportion to the number of units owned by them. In India the mutual fund is constituted as a trust under the Indian Trust Act, 1881 and registered with SEBI.\textsuperscript{[3]} Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. The flow chart below describes broadly the working of a mutual fund:
DEFINITION

A mutual fund is a professionally managed firm of collective investments that collects money from many investors and puts it in stocks, bonds, short-term money market instruments, and/or other securities. The fund manager, also known as portfolio manager, invests and trades the fund's underlying securities, realizing capital gains or losses and passing any proceeds to the individual investors. Currently, the worldwide value of all mutual funds totals more than $26 trillion.\[4\]

Mutual funds can give investors access to emerging markets.
If the mutual fund liquidity is low, it means that mutual funds are bullish. So people having contrary arguments argue that the market is at, or near a peak and hence is likely to decline. Thus, low mutual fund liquidity is considered as a bearish indicator. On the other hand if the mutual fund liquidity is high, it means that mutual funds are bearish. So contrarians believe that market is at, or near, a bottom and hence is poised to rise. Thus high mutual fund liquidity is considered as a bullish indication. [5]

**ORGANISATION OF A MUTUAL FUND**

There are many entities involved and the diagram below illustrates the organisational set up of a mutual fund:
HISTORY

The mutual fund industry has exploded. The first fund was started in 1924\textsuperscript{[6]}. Massachusetts Investors Trust (now MFS Investment Management) was founded on March 21, 1924, and, after one year, it had 200 shareholders and $392,000 in assets. The entire industry, which included a few closed-end funds, represented less than $10 million in 1924.

The stock market crash of 1929 hindered the growth of mutual funds. In response to the stock market crash, Congress passed the Securities Act of 1933 and the Securities Exchange Act of 1934. These laws require that a fund be registered with the Securities and Exchange Commission (SEC) and provide prospective investors with a prospectus that contains required disclosures about the fund, the securities themselves, and fund manager. The SEC helped draft the Investment Company Act of 1940, which sets forth the guidelines with which all SEC-registered funds today must comply.

With renewed confidence in the stock market, mutual funds began to blossom. By the end of the 1960s, there were approximately 270 funds with $48 billion in assets. The first retail index fund, First Index Investment Trust, was formed in 1976 and headed by John Bogle, who
conceptualized many of the key tenets of the industry in his 1951 senior thesis at Princeton University[7]. It is now called the Vanguard 500 Index Fund and is one of the world's largest mutual funds, with more than $100 billion in assets.

A key factor in mutual-fund growth was the 1975 change in the Internal Revenue Code allowing individuals to open individual retirement accounts (IRAs). Even people already enrolled in corporate pension plans could contribute a limited amount (at the time, up to $2,000 a year). Mutual funds are now popular in employer-sponsored "defined-contribution" retirement plans such as (401(k)s) and 403(b)s as well as IRAs including Roth IRAs.

As of October 2007, there are 8,015 mutual funds that belong to the Investment Company Institute (ICI), a national trade association of investment companies in the United States, with combined assets of $12.356 trillion.[8]

❖ USAGE

Since the Investment Company Act of 1940, a mutual fund is one of three basic types of investment companies available in the United States.[9]
Mutual funds can invest in many kinds of securities. The most common are cash instruments, stock, and bonds, but there are hundreds of sub-categories. Stock funds, for instance, can invest primarily in the shares of a particular industry, such as technology or utilities. These are known as sector funds. Bond funds can vary according to risk (e.g., high-yield junk bonds or investment-grade corporate bonds), type of issuers (e.g., government agencies, corporations, or municipalities), or maturity of the bonds (short- or long-term). Both stock and bond funds can invest in primarily U.S. securities (domestic funds), both U.S. and foreign securities (global funds), or primarily foreign securities (international funds). Most mutual funds' investment portfolios are continually adjusted under the supervision of a professional manager, who forecasts cash flows into and out of the fund by investors, as well as the future performance of investments appropriate for the fund and chooses those which he or she believes will most closely match the fund's stated investment objective. A mutual fund is administered under an advisory contract with a management company, which may hire or fire fund managers.

Mutual funds are subject to a special set of regulatory, accounting, and tax rules. In the U.S., unlike most other types of business entities, they are not taxed on their income as long as they distribute 90% of it to
their shareholders and the funds meet certain diversification requirements in the Internal Revenue Code. Also, the type of income they earn is often unchanged as it passes through to the shareholders. Mutual fund distributions of tax-free municipal bond income are tax-free to the shareholder. Taxable distributions can be either ordinary income or capital gains, depending on how the fund earned those distributions. Net losses are not distributed or passed through to fund investors.

❖ NET ASSET VALUE

The net asset value, or NAV, is the current market value of a fund's holdings, less the fund's liabilities, usually expressed as a per-share amount. For most funds, the NAV is determined daily, after the close of trading on some specified financial exchange, but some funds update their NAV multiple times during the trading day. The public offering price, or POP, is the NAV plus a sales charge. Open-end funds sell shares at the POP and redeem shares at the NAV, and so process orders only after the NAV is determined. Closed-end funds (the shares of which are traded by investors) may trade at a higher or lower price than their NAV; this is known as a premium or discount, respectively. If a fund is divided into multiple classes of shares, each class will typically have its own
NAV, reflecting differences in fees and expenses paid by the different classes.

Some mutual funds own securities which are not regularly traded on any formal exchange. These may be shares in very small or bankrupt companies; they may be derivatives; or they may be private investments in unregistered financial instruments (such as stock in a non-public company). In the absence of a public market for these securities, it is the responsibility of the fund manager to form an estimate of their value when computing the NAV. How much of a fund's assets may be invested in such securities is stated in the fund's prospectus.

❖ TURNOVER

Turnover is a measure of the fund's securities transactions, usually calculated over a year's time, and usually expressed as a percentage of net asset value.

This value is usually calculated as the value of all transactions (buying, selling) divided by 2 divided by the fund's total holdings; i.e., the fund counts one security sold and another one bought as one "turnover". Thus turnover measures the replacement of holdings.
EXPENSES AND TER'S

Mutual funds bear expenses similar to other companies. The fee structure of a mutual fund can be divided into two or three main components: management fee, non management expense, and 12b-1/non-12b-1 fees. All expenses are expressed as a percentage of the average daily net assets of the fund.

MANAGEMENT FEES

The management fee for the fund is usually synonymous with the contractual investment advisory fee charged for the management of a fund's investments. However, as many fund companies include administrative fees in the advisory fee component, when attempting to compare the total management expenses of different funds, it is helpful to define management fee as equal to the contractual advisory fee + the contractual administrator fee. This "levels the playing field" when comparing management fee components across multiple funds.

Contractual advisory fees may be structured as "flat-rate" fees, i.e., a single fee charged to the fund, regardless of the asset size of the fund. However, many funds have contractual fees which include breakpoints, so that as the value of a fund's assets increases, the advisory fee paid decreases. Another way in which the advisory fees remain competitive is
by structuring the fee so that it is based on the value of all of the assets of a group or a complex of funds rather than those of a single fund.

❖ NON-MANAGEMENT EXPENSES

Apart from the management fee, there are certain non-management expenses which most funds must pay. Some of the more significant (in terms of amount) non-management expenses are: transfer agent expenses (this is usually the person you get on the other end of the phone line when you want to purchase/sell shares of a fund), custodian expense (the fund's assets are kept in custody by a bank which charges a custody fee), legal/audit expense, fund accounting expense, registration expense (the SEC charges a registration fee when funds file registration statements with it), board of directors/trustees expense (the disinterested members of the board who oversee the fund are usually paid a fee for their time spent at meetings), and printing and postage expense (incurred when printing and delivering shareholder reports).

❖ 12B-1/NON-12B-1 SERVICE FEES

12b-1 service fees/shareholder servicing fees are contractual fees which a fund may charge to cover the marketing expenses of the fund. Non-12b-1 service fees are marketing/shareholder servicing fees which
do not fall under SEC rule 12b-1. While funds do not have to charge the full contractual 12b-1 fee, they often do. When investing in a front-end load or no-load fund, the 12b-1 fees for the fund are usually 0.250% (or 25 basis points). The 12b-1 fees for back-end and level-load share classes are usually between 50 and 75 basis points but may be as much as 100 basis points. While funds are often marketed as "no-load" funds, this does not mean they do not charge a distribution expense through a different mechanism. It is expected that a fund listed on an online brokerage site will be paying for the "shelf-space" in a different manner even if not directly through a 12b-1 fee.

❖ INVESTOR FEES AND EXPENSES

Fees and expenses borne by the investor vary based on the arrangement made with the investor's broker. Sales loads (or contingent deferred sales loads (CDSL)) are not included in the fund's total expense ratio (TER) because they do not pass through the statement of operations for the fund. Additionally, funds may charge early redemption fees to discourage investors from swapping money into and out of the fund quickly, which may force the fund to make bad trades to obtain the necessary liquidity. For example, Fidelity Diversified International Fund
(FDIVX) charges a 1 percent fee on money removed from the fund in less than 30 days.

❖ BROKERAGE COMMISSIONS

An additional expense which does not pass through the statement of operations and cannot be controlled by the investor is brokerage commissions. Brokerage commissions are incorporated into the price of the fund and are reported usually 3 months after the fund's annual report in the statement of additional information. Brokerage commissions are directly related to portfolio turnover (portfolio turnover refers to the number of times the fund's assets are bought and sold over the course of a year). Usually the higher the rate of the portfolio turnover, the higher the brokerage commissions. The advisors of mutual fund companies are required to achieve "best execution" through brokerage arrangements so that the commissions charged to the fund will not be excessive.

TYPES OF MUTUAL FUND SCHEMES

Wide variety of Mutual Fund Schemes exist to cater to the needs such as financial position, risk tolerance and return expectations etc. The
The table below gives an overview into the existing types of schemes in the Industry.

**TYPES OF MUTUAL FUND SCHEMES**

**BY STRUCTURE**
- *Open-Ended Schemes*
- *Close-Ended Schemes*
- *Interval Schemes*

**BY INVESTMENT OBJECTIVE**
- *Growth Schemes*
- *Income Schemes*
- *Balanced Schemes*
- *Money Market Schemes*

**OTHER SCHEMES**
- *Tax Saving Schemes*
- *Special Schemes*
  - Index Schemes
  - Sector Specific Schemes

1. **OPEN-END FUND**

The term mutual fund is the common name for what is classified as an open-end investment company by the SEC. Being open-ended means that, at the end of every day, the fund issues new shares to investors and buys back shares from investors wishing to leave the fund.

Mutual funds must be structured as corporations or trusts, such as business trusts, and any corporation or trust will be classified by the SEC as an investment company if it issues securities and primarily invests in
non-government securities. An investment company will be classified by the SEC as an open-end investment company if they do not issue undivided interests in specified securities (the defining characteristic of unit investment trusts or UITs) and if they issue redeemable securities. Registered investment companies that are not UITs or open-end investment companies are closed-end funds. Neither UITs nor closed-end funds are mutual funds (as that term is used in the US).

2. EXCHANGE-TRADED FUNDS

A relatively recent innovation, the exchange-traded fund or ETF, is often structured as an open-end investment company. ETFs combine characteristics of both mutual funds and closed-end funds. ETFs are traded throughout the day on a stock exchange, just like closed-end funds, but at prices generally approximating the ETF's net asset value. Most ETFs are index funds and track stock market indexes. Shares are issued or redeemed by institutional investors in large blocks (typically of 50,000). Most investors purchase and sell shares through brokers in market transactions. Because the institutional investors normally purchase and redeem in in kind transactions, ETFs are more efficient than traditional mutual funds (which are continuously issuing and redeeming securities and, to effect such transactions, continually buying and selling
securities and maintaining liquidity positions) and therefore tend to have lower expenses.

Exchange-traded funds are also valuable for foreign investors who are often able to buy and sell securities traded on a stock market, but who, for regulatory reasons, are limited in their ability to participate in traditional U.S. mutual funds.

3. EQUITY FUNDS

Equity funds, which consist mainly of stock investments, are the most common type of mutual fund. Equity funds hold 50 percent of all amounts invested in mutual funds in the United States. Often equity funds focus investments on particular strategies and certain types of issuers.

4. INDEX FUNDS

An index fund maintains investments in companies that are part of major stock (or bond) indices, such as the S&P 500, while an actively managed fund attempts to outperform a relevant index through superior stock-picking techniques. The assets of an index fund are managed to closely approximate the performance of a particular published index. Since the composition of an index changes infrequently, an index fund
manager makes fewer trades, on average, than does an active fund manager. For this reason, index funds generally have lower trading expenses than actively managed funds, and typically incur fewer short-term capital gains which must be passed on to shareholders. Additionally, index funds do not incur expenses to pay for selection of individual stocks (proprietary selection techniques, research, etc.) and deciding when to buy, hold or sell individual holdings. Instead, a fairly simple computer model can identify whatever changes are needed to bring the fund back into agreement with its target index.\[^{11}\]

Certain empirical evidence seems to illustrate that mutual funds do not beat the market and actively managed mutual funds under-perform other broad-based portfolios with similar characteristics. One study found that nearly 1,500 U.S. mutual funds under-performed the market in approximately half of the years between 1962 and 1992.\[^{12}\] Moreover, funds that performed well in the past are not able to beat the market again in the future (shown by Jensen, 1968; Grimblatt and Sheridan Titman, 1989).\[^{13}\]

### 5. BOND FUNDS

Bond funds account for 18% of mutual fund assets.\[^{14}\] Types of bond funds include term funds, which have a fixed set of time (short-,
medium-, or long-term) before they mature. Municipal bond funds generally have lower returns, but have tax advantages and lower risk. High-yield bond funds invest in corporate bonds, including high-yield or junk bonds. With the potential for high yield, these bonds also come with greater risk.

6. MONEY MARKET FUNDS

Money market funds hold 26% of mutual fund assets in the United States. Money market funds entail the least risk, as well as lower rates of return. Unlike certificates of deposit (CDs), money market shares are liquid and redeemable at any time.

7. FUNDS OF FUNDS

Funds of funds (FoF) are mutual funds which invest in other underlying mutual funds (i.e., they are funds comprised of other funds). The funds at the underlying level are typically funds which an investor can invest in individually. A fund of funds will typically charge a management fee which is smaller than that of a normal fund because it is considered a fee charged for asset allocation services. The fees charged at the underlying fund level do not pass through the statement of operations, but are usually disclosed in the fund's annual report, prospectus, or
statement of additional information. The fund should be evaluated on the combination of the fund-level expenses and underlying fund expenses, as these both reduce the return to the investor.

Most FoFs invest in affiliated funds (i.e., mutual funds managed by the same advisor), although some invest in funds managed by other (unaffiliated) advisors. The cost associated with investing in an unaffiliated underlying fund is most often higher than investing in an affiliated underlying because of the investment management research involved in investing in fund advised by a different advisor. Recently, FoFs have been classified into those that are actively managed (in which the investment advisor reallocates frequently among the underlying funds in order to adjust to changing market conditions) and those that are passively managed (the investment advisor allocates assets on the basis of on an allocation model which is rebalanced on a regular basis).

The design of FoFs is structured in such a way as to provide a ready mix of mutual funds for investors who are unable to or unwilling to determine their own asset allocation model. Fund companies such as TIAA-CREF, American Century Investments, Vanguard, and Fidelity have also entered this market to provide investors with these options and take the "guess work" out of selecting funds. The allocation mixes usually vary by the time the investor would like to retire: 2020, 2030,
2050, etc. The more distant the target retirement date, the more aggressive the asset mix.

8. HEDGE FUNDS

Hedge funds in the United States are pooled investment funds with loose SEC regulation and should not be confused with mutual funds. Some hedge fund managers are required to register with SEC as investment advisers under the Investment Advisers Act.\[16\] The Act does not require an adviser to follow or avoid any particular investment strategies, nor does it require or prohibit specific investments. Hedge funds typically charge a management fee of 1% or more, plus a "performance fee" of 20% of the hedge fund's profits. There may be a "lock-up" period, during which an investor cannot cash in shares. A variation of the hedge strategy is the 130-30 fund for individual investors.

9. GROWTH FUNDS VS. VALUE FUNDS

Another distinction is made between growth funds, which invest in stocks of companies that have the potential for large capital gains, and value funds, which concentrate on stocks that are undervalued. Value stocks have historically produced higher returns; however, financial theory states this is compensation for their greater risk. Growth funds
tend not to pay regular dividends. Income funds tend to be more conservative investments, with a focus on stocks that pay dividends. A balanced fund may use a combination of strategies, typically including some level of investment in bonds, to stay more conservative when it comes to risk, yet aim for some growth.

❖ MUTUAL FUNDS VS. OTHER INVESTMENTS

Mutual funds offer several advantages over investing in individual stocks. For example, the transaction costs are divided among all the mutual fund shareholders, which allows for cost-effective diversification. Investors may also benefit by having a third party (professional fund managers) apply expertise and dedicate time to manage and research investment options, although there is dispute over whether professional fund managers can, on average, outperform simple index funds that mimic public indexes. Whether actively managed or passively indexed, mutual funds are not immune to risks. They share the same risks associated with the investments made. If the fund invests primarily in stocks, it is usually subject to the same ups and downs and risks as the stock market.
SHARE CLASSES

Many mutual funds offer more than one class of shares. For example, you may have seen a fund that offers "Class A" and "Class B" shares. Each class will invest in the same pool (or investment portfolio) of securities and will have the same investment objectives and policies. But each class will have different shareholder services and/or distribution arrangements with different fees and expenses. These differences are supposed to reflect different costs involved in servicing investors in various classes; for example, one class may be sold through brokers with a front-end load, and another class may be sold direct to the public with no load but a "12b-1 fee" included in the class's expenses (sometimes referred to as "Class C" shares). Still a third class might have a minimum investment of $10,000,000 and be available only to financial institutions (a so-called "institutional" share class). In some cases, by aggregating regular investments made by many individuals, a retirement plan (such as a 401(k) plan) may qualify to purchase "institutional" shares (and gain the benefit of their typically lower expense ratios) even though no members of the plan would qualify individually. As a result, each class will likely have different performance results.

A multi-class structure offers investors the ability to select a fee and expense structure that is most appropriate for their investment goals.
(including the length of time that they expect to remain invested in the fund). \[19\]

❖ LOAD AND EXPENSES

A front-end load or sales charge is a commission paid to a broker by a mutual fund when shares are purchased, taken as a percentage of funds invested. The value of the investment is reduced by the amount of the load. Some funds have a deferred sales charge or back-end load. In this type of fund an investor pays no sales charge when purchasing shares, but will pay a commission out of the proceeds when shares are redeemed depending on how long they are held. Another derivative structure is a level-load fund, in which no sales charge is paid when buying the fund, but a back-end load may be charged if the shares purchased are sold within a year.

Load funds are sold through financial intermediaries such as brokers, financial planners, and other types of registered representatives who charge a commission for their services. Shares of front-end load funds are frequently eligible for breakpoints (i.e., a reduction in the commission paid) based on a number of variables. These include other accounts in the same fund family held by the investor or various family
members, or committing to buy more of the fund within a set period of
time in return for a lower commission "today".

It is possible to buy many mutual funds without paying a sales
charge. These are called no-load funds. In addition to being available
from the fund company itself, no-load funds may be sold by some
discount brokers for a flat transaction fee or even no fee at all. (This does
not necessarily mean that the broker is not compensated for the
transaction; in such cases, the fund may pay brokers' commissions out of
"distribution and marketing" expenses rather than a specific sales charge.
The purchaser is therefore paying the fee indirectly through the fund's
expenses deducted from profits.)

No-load funds include both index funds and actively managed
funds. The largest mutual fund families selling no-load index funds are
Vanguard and Fidelity, though there are a number of smaller mutual fund
families with no-load funds as well. Expense ratios in some no-load
index funds are less than 0.2% per year versus the typical actively
managed fund's expense ratio of about 1.5% per year. Load funds usually
have even higher expense ratios when the load is considered. The
expense ratio is the anticipated annual cost to the investor of holding
shares of the fund. For example, on a $100,000 investment, an expense
ratio of 0.2% means $200 of annual expense, while a 1.5% expense ratio
would result in $1,500 of annual expense. These expenses are before any sales commissions paid to purchase the mutual fund.

Many fee-only financial advisors strongly suggest no-load funds such as index funds. If the advisor is not of the fee-only type but is instead compensated by commissions, the advisor may have a conflict of interest in selling high-commission load funds.

**IMPORTANCE OF MUTUAL FUNDS**

The advantages of investing in a Mutual Fund are:

- Professional Management
- Diversification
- Convenient Administration
- Return Potential
- Low Costs
- Liquidity
- Transparency
- Flexibility
- Choice of schemes
- Tax benefits
- Well regulated
INTRODUCTION & HISTORICAL BACKGROUND OF STOCK TRADING

DEFINITION OF STOCK

A *share* (also referred to as equity shares) of *stock* represents a share of ownership in a corporation.

TYPES OF STOCK

Stock typically takes the form of shares of common stock (or voting shares). As a unit of ownership, common stock typically carries voting rights that can be exercised in corporate decisions. Preferred stock differs from common stock in that it typically does not carry voting rights but is legally entitled to receive a certain level of dividend payments before any dividends can be issued to other shareholders. Convertible preferred stock is preferred stock that includes an option for the holder to convert the preferred shares into a fixed number of common shares, usually anytime after a predetermined date. Shares of such stock are called "convertible preferred shares" (or "convertible preference shares" in the UK).

Although there is a great deal of commonality between the stocks of different companies, each new equity issue can have legal clauses
attached to it that make it dynamically different from the more general cases. Some shares of common stock may be issued without the typical voting rights being included, for instance, or some shares may have special rights unique to them and issued only to certain parties. Note that not all equity shares are the same.

❖ STOCK TRADER

A stock trader or a stock investor is an individual or firm who buys and sells stocks or bonds (and possibly other financial assets) in the financial markets.

❖ STOCK TRADER VS STOCK INVESTOR

Individuals or firms trading equity (stock) on the stock markets as their principal capacity are called stock traders. Stock traders usually try to profit from short-term price volatility with trades lasting anywhere from several seconds to several weeks. The stock trader is usually a professional. A person can call himself a full or part-time stock trader/investor while maintaining other professions. When a stock trader/investor has clients, and acts as a money manager or adviser with the intention of adding value to his clients finances, he is also called a financial advisor or manager. In this case, the financial manager could be
an independent professional or a large bank corporation employee. This may include managers dealing with investment funds, hedge funds, mutual funds, and pension funds, or other professionals in equity investment, fund management, and wealth management. Several different types of stock trading exist including day trading, swing trading, market making, scalping (trading), momentum trading, trading the news, and arbitrage.

On the other hand, stock investors purchase stocks with the intention of holding for an extended period of time, usually several months to years. They rely primarily on fundamental analysis for their investment decisions and fully recognize stock shares as part-ownership in the company. Many investors believe in the buy and hold strategy, which as the name suggests, implies that investors will hold stocks for the very long term, generally measured in years. This strategy was made popular in the equity bull market of the 1980s and 90s where buy-and-hold investors rode out short-term market declines and continued to hold as the market returned to its previous highs and beyond. However, during the 2001-2003 equity bear market, the buy-and-hold strategy lost some followers as broader market indexes like the NASDAQ saw their values decline by over 60%.
METHODOLOGY

Stock traders/investors usually need a stock broker such as a bank or a brokerage firm to access the stock market. Since the advent of Internet banking, an Internet connection is commonly used to manage positions. Using the Internet, specialized software, and a personal computer, stock traders/investors make use of technical analysis and fundamental analysis to help them in the decision-making process. They may use several information resources.

EXPENSES, COSTS AND RISK

Trading activities are not free. They have a considerably high level of risk, uncertainty and complexity, especially for unwise and inexperienced stock traders/investors seeking for an easy way to make money quickly. In addition, stock traders/investors face several costs such as commissions, taxes and fees to be paid for the brokerage and other services, like the buying/selling orders placed at the stock exchange. According to each National or State legislation, a large array of fiscal obligations must be respected, and taxes are charged by the State over the transactions, dividends and capital gains. However, these fiscal obligations may vary from jurisdiction to jurisdiction because, among
other reasons, it could be assumed that taxation is already incorporated into the stock price through the different taxes companies pay to the state, or that tax free stock market operations are useful to boost economic growth. Beyond these costs, the opportunity costs of money and time, the currency risk, the financial risk, and all the Internet Service Provider, data and news agency services and electricity consumption expenses must be added.

❖ STOCK PICKING

Although many companies offer courses in stock picking, and numerous experts report success through Technical Analysis and Fundamental Analysis, many economists and academics state that because of Efficient market theory it is unlikely that any amount of analysis can help an investor make any gains above the stock market itself. In a normal distribution of investors, many academics believe that the richest are simply outliers in such a distribution (i.e. in a game of chance, they have flipped heads twenty times in a row).

For this reason most academics and economists recommend that investors invest in funds that follow an index in the market, i.e. long-term and well-diversified investments.
**STOCK DERIVATIVE**

A stock derivative is any financial instrument which has a value that is dependent on the price of the underlying stock. Futures and options are the main types of derivatives on stocks. The underlying security may be a stock index or an individual firm's stock, e.g. single-stock futures.

Stock futures are contracts where the buyer is long, i.e., takes on the obligation to buy on the contract maturity date, and the seller is short, i.e., takes on the obligation to sell. Stock index futures are generally not delivered in the usual manner, but by cash settlement.

A stock option is a class of option. Specifically, a call option is the right (not obligation) to buy stock in the future at a fixed price and a put option is the right (not obligation) to sell stock in the future at a fixed price. Thus, the value of a stock option changes in reaction to the underlying stock of which it is a derivative. The most popular method of valuing stock options is the Black Scholes model. Apart from call options granted to employees, most stock options are transferable.

**HISTORY**

During Roman times, the empire contracted out many of its services to private groups called publicani. Shares in publicani were
called "socii" (for large cooperatives) and "particulae" which were analogous to today's Over-The-Counter shares of small companies. Though the records available for this time are incomplete, Edward Chancellor states in his book Devil Take the Hindmost that there is some evidence that a speculation in these shares became increasingly widespread and that perhaps the first ever speculative bubble in "stocks" occurred.

The first company to issue shares of stock after the Middle Ages was the Dutch East India Company in 1606. The innovation of joint ownership made a great deal of Europe's economic growth possible following the Middle Ages. The technique of pooling capital to finance the building of ships, for example, made the Netherlands a maritime superpower. Before adoption of the joint-stock corporation, an expensive venture such as the building of a merchant ship could be undertaken only by governments or by very wealthy individuals or families.

Economic historians find the Dutch stock market of the 1600s particularly interesting: there is clear documentation of the use of stock futures, stock options, short selling, the use of credit to purchase shares, a speculative bubble that crashed in 1695, and a change in fashion that unfolded and reverted in time with the market (in this case it was headdresses instead of hemlines). Dr. Edward Stringham also noted that
the uses of practices such as short selling continued to occur during this time despite the government passing laws against it. This is unusual because it shows individual parties fulfilling contracts that were not legally enforceable and where the parties involved could incur a loss. Stringham argues that this shows that contracts can be created and enforced without state sanction or, in this case, in spite of laws to the contrary.

❖ SHAREHOLDER

A shareholder (or stockholder) is an individual or company (including a corporation) that legally owns one or more shares of stock in a joint stock company. Companies listed at the stock market are expected to strive to enhance shareholder value.

Shareholders are granted special privileges depending on the class of stock, including the right to vote (usually one vote per share owned) on matters such as elections to the board of directors, the right to share in distributions of the company's income, the right to purchase new shares issued by the company, and the right to a company's assets during a liquidation of the company. However, shareholder's rights to a company's assets are subordinate to the rights of the company's creditors.
Shareholders are considered by some to be a partial subset of stakeholders, which may include anyone who has a direct or indirect equity interest in the business entity or someone with even a non-pecuniary interest in a non-profit organization. Thus it might be common to call volunteer contributors to an association stakeholders, even though they are not shareholders.

Although directors and officers of a company are bound by fiduciary duties to act in the best interest of the shareholders, the shareholders themselves normally do not have such duties towards each other.

However, in a few unusual cases, some courts have been willing to imply such a duty between shareholders. For example, in California, USA, majority shareholders of closely held corporations have a duty to not destroy the value of the shares held by minority shareholders.

The largest shareholders (in terms of percentages of companies owned) are often mutual funds, and especially passively managed exchange-traded funds.
The owners of a company may want additional capital to invest in new projects within the company. They may also simply wish to reduce their holding, freeing up capital for their own private use.

By selling shares they can sell part or all of the company to many part-owners. The purchase of one share entitles the owner of that share to literally share in the ownership of the company, a fraction of the decision-making power, and potentially a fraction of the profits, which the company may issue as dividends.

In the common case of a publicly traded corporation, where there may be thousands of shareholders, it is impractical to have all of them making the daily decisions required to run a company. Thus, the shareholders will use their shares as votes in the election of members of the board of directors of the company.

In a typical case, each share constitutes one vote. Corporations may, however, issue different classes of shares, which may have different voting rights. Owning the majority of the shares allows other shareholders to be out-voted - effective control rests with the majority shareholder (or shareholders acting in concert). In this way the original owners of the company often still have control of the company.
SHAREHOLDER RIGHTS

Although ownership of 51% of shares does result in 51% ownership of a company, it does not give the shareholder the right to use a company's building, equipment, materials, or other property. This is because the company is considered a legal person, thus it owns all its assets itself. This is important in areas such as insurance, which must be in the name of the company and not the main shareholder.

Even though the board of directors runs the company, the shareholder has some impact on the company's policy, as the shareholders elect the board of directors. Each shareholder typically has a percentage of votes equal to the percentage of shares he or she owns. So as long as the shareholders agree that the management (agent) are performing poorly they can elect a new board of directors which can then hire a new management team. In practice, however, genuinely contested board elections are rare. Board candidates are usually nominated by insiders or by the board of the directors themselves, and a considerable amount of stock is held and voted by insiders.

Owning shares does not mean responsibility for liabilities. If a company goes broke and has to default on loans, the shareholders are not liable in any way. However, all money obtained by converting assets into cash will be used to repay loans and other debts first, so that shareholders
cannot receive any money unless and until creditors have been paid (most often the shareholders end up with nothing).

❖ TRADING

A stock exchange is an organization that provides a marketplace for either physical or virtual trading shares, bonds and warrants and other financial products where investors (represented by stock brokers) may buy and sell shares of a wide range of companies. A company will usually list its shares by meeting and maintaining the listing requirements of a particular stock exchange. In the United States, through the inter-market quotation system, stocks listed on one exchange can also be bought or sold on several other exchanges, including relatively new so-called ECNs (Electronic Communication Networks like Archipelago or Instinet).

In the USA stocks used to be broadly grouped into NYSE-listed and NASDAQ-listed stocks. Until a few years ago there was a law that NYSE listed stocks were not allowed to be listed on the NASDAQ or vice versa.

Many large non-U.S companies choose to list on a U.S. exchange as well as an exchange in their home country in order to broaden their investor base. These companies have then to ship a certain number of
shares to a bank in the US (a certain percentage of their principal) and put it in the safe of the bank. Then the bank where they deposited the shares can issue a certain number of so-called American Depositary Shares, short ADS (singular). If someone buys now a certain number of ADSs the bank where the shares are deposited issues an American Depositary Receipt (ADR) for the buyer of the ADSs.

Likewise, many large U.S. companies list themselves at foreign exchanges to raise capital abroad.

❖ ARBITRAGE TRADING

Although it makes sense for some companies to raise capital by offering stock on more than one exchange, a keen investor with access to information about such discrepancies could invest in expectation of their eventual convergence, known as an arbitrage trade. In today's era of electronic trading, these discrepancies, if they exist, are both shorter-lived and more quickly acted upon. As such, arbitrage opportunities disappear quickly due to the efficient nature of the market.

A stock exchange, share market or bourse is a corporation or mutual organization which provides "trading" facilities for stock brokers and traders, to trade stocks and other securities. Stock exchanges also provide facilities for the issue and redemption of securities as well as
other financial instruments and capital events including the payment of income and dividends. The securities traded on a stock exchange include: shares issued by companies, unit trusts and other pooled investment products and bonds. To be able to trade a security on a certain stock exchange, it has to be listed there. Usually there is a central location at least for recordkeeping, but trade is less and less linked to such a physical place, as modern markets are electronic networks, which gives them advantages of speed and cost of transactions. Trade on an exchange is by members only. The initial offering of stocks and bonds to investors is by definition done in the primary market and subsequent trading is done in the secondary market. A stock exchange is often the most important component of a stock market. Supply and demand in stock markets is driven by various factors which, as in all free markets, affect the price of stocks (see stock valuation).

There is usually no compulsion to issue stock via the stock exchange itself, nor must stock be subsequently traded on the exchange. Such trading is said to be off exchange or over-the-counter. This is the usual way that bonds are traded. Increasingly, stock exchanges are part of a global market for securities.
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.

The house of the Beurze family on Vlamingstraat Bruges was the site of the world’s first stock Exchange, circa 1415. The term Bourse is believed to have derived from the family name Beurze.

In the middle of the 13th century, Venetian bankers began to trade in government securities. In 1351, the Venetian Government outlawed spreading rumors 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.
IMPORTANCE OF STOCK EXCHANGES

Stock exchanges have multiple roles in the economy, this may include the following:

❖ RAISING CAPITAL FOR BUSINESSES

The Stock Exchange provides companies with the facility to raise capital for expansion through selling shares to the investing public.

❖ MOBILIZING SAVINGS FOR INVESTMENT

When people draw their savings and invest in shares, it leads to a more rational allocation of resources because funds, which could have been consumed, or kept in idle deposits with banks, are mobilized and redirected to promote business activity with benefits for several economic sectors such as agriculture, commerce and industry, resulting in a stronger economic growth and higher productivity levels and firms.

❖ FACILITATING COMPANY GROWTH

Companies view acquisitions as an opportunity to expand product lines, increase distribution channels, hedge against volatility, increase its market share, or acquire other necessary business assets. A takeover bid
or a merger agreement through the stock market is one of the simplest and most common ways for a company to grow by acquisition or fusion.

❖ REDISTRIBUTION OF WEALTH

Stocks exchanges do not exist to redistribute wealth. However, both casual and professional stock investors, through dividends and stock price increases that may result in capital gains, will share in the wealth of profitable businesses.

❖ 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. Consequently, it is alleged that public companies (companies that are owned by shareholders who are members of the general public and trade shares on public exchanges) tend to have better management records than privately-held companies (those companies where shares are not publicly traded, often owned by the company founders and/or their families and heirs, or otherwise by a small group of investors). However, some well-documented cases are known where it is
alleged that there has been considerable slippage in corporate governance on the part of some public companies (Pets.com (2000), Enron Corporation (2001), One.Tel (2001), [Sunbeam Products Sunbeam] (2001), Webvan (2001), Adelphia (2002), MCI WorldCom (2002), or Parmalat (2003), are among the most widely scrutinized by the media).

❖ CREATING INVESTMENT OPPORTUNITIES FOR SMALL INVESTORS

As opposed to other businesses that require huge capital outlay, investing in shares is open to both the large and small stock investors because a person buys the number of shares they can afford. Therefore the Stock Exchange provides the opportunity for small investors to own shares of the same companies as large investors.

❖ GOVERNMENT CAPITAL-RAISING FOR DEVELOPMENT PROJECTS

Governments at various levels may decide to borrow money in order to finance infrastructure projects such as sewage and water treatment works or housing estates by selling another category of securities known as bonds. These bonds can be raised through the Stock Exchange whereby members of the public buy them, thus loaning money
to the government. The issuance of such bonds can obviate the need to
directly tax the citizens in order to finance development, although by
securing such bonds with the full faith and credit of the government
instead of with collateral, the result is that the government must tax the
citizens or otherwise raise additional funds to make any regular coupon
payments and refund the principal when the bonds mature.

❖ BAROMETER OF THE ECONOMY

At the stock exchange, share prices rise and fall depending,
largely, on market forces. Share prices tend to rise or remain stable when
companies and the economy in general show signs of stability and
growth. An economic recession, depression, or financial crisis could
eventually lead to a stock market crash. Therefore the movement of share
prices and in general of the stock indexes can be an indicator of the
general trend in the economy.
### MAJOR STOCK EXCHANGES

Twenty Major Stock Exchanges In The World: Market Capitalization & Year-to-date Turnover at the end of October 2007.

<table>
<thead>
<tr>
<th>Region</th>
<th>Stock Exchange</th>
<th>Market Value (trillions of US dollars)</th>
<th>Total Share Turnover (trillions of US dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>JSE Securities Exchange</td>
<td>$0.940</td>
<td>$0.349</td>
</tr>
<tr>
<td>Americas</td>
<td>NASDAQ</td>
<td>$4.39</td>
<td>$12.4</td>
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<tr>
<td>Americas</td>
<td>São Paulo Stock Exchange</td>
<td>$1.40</td>
<td>$0.476</td>
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<tr>
<td>Americas</td>
<td>Toronto Stock Exchange</td>
<td>$2.29</td>
<td>$1.36</td>
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<tr>
<td>Americas/Europe</td>
<td>NYSE Euronext</td>
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<td>$28.7</td>
</tr>
<tr>
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<td>Australian Securities Exchange</td>
<td>$1.45\textsuperscript{3}</td>
<td>$1.00\textsuperscript{3}</td>
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<td>Bombay Stock Exchange</td>
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<td>Asia-Pacific</td>
<td>Korea Exchange</td>
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</tr>
<tr>
<td>South Asia</td>
<td>National Stock Exchange</td>
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<td>Asia-Pacific</td>
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<tr>
<td>Europe</td>
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<tr>
<td>Europe</td>
<td>London Stock Exchange</td>
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<td>Europe</td>
<td>Madrid Stock Exchange (Bolsas y Mercados Españoles)</td>
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<td>Europe</td>
<td>Milan Stock Exchange (Borsa Italiana)</td>
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<tr>
<td>Europe</td>
<td>Moscow Interbank Currency Exchange (MICEX)</td>
<td>$0.965\textsuperscript{2}</td>
<td>$0.488\textsuperscript{2}</td>
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<tr>
<td>Europe</td>
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<tr>
<td>Europe</td>
<td>Swiss Exchange</td>
<td>$1.33</td>
<td>$1.58</td>
</tr>
</tbody>
</table>

**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

**Note 3:** Latest data available is at the end of September 2007
LISTING REQUIREMENTS

Listing requirements are the set of conditions imposed by a given stock exchange upon companies that want to be listed on that exchange. Such conditions sometimes include minimum number of shares outstanding, minimum market capitalization, and minimum annual income.

REQUIREMENTS BY STOCK EXCHANGE

Companies have to meet the requirements of the exchange in order to have their stocks and shares listed and traded there, but requirements vary by stock exchange:

❖ **London Stock Exchange**: The main market of the London Stock Exchange has requirements for a minimum market capitalization (£700,000), three years of audited financial statements, minimum public float (25 per cent) and sufficient working capital for at least 12 months from the date of listing.

❖ **NASDAQ Stock Exchange**: To be listed on the NASDAQ a company must have issued at least 1.25 million shares of stock worth at least $70 million and must have earned more than $11 million over the last three years.[21]
New York Stock Exchange: To be listed on the New York Stock Exchange (NYSE), for example, a company must have issued at least a million shares of stock worth $100 million and must have earned more than $10 million over the last three years.[22]

Bombay Stock Exchange: Bombay Stock Exchange (BSE) has requirements for a minimum market capitalization of Rs.250 Million and minimum public float equivalent to Rs.100 Million.

OWNERSHIP

Stock exchanges originated as mutual organizations, owned by its member stock brokers. There has been a recent trend for stock exchanges to demutualize, where the members sell their shares in an initial public offering. In this way the mutual organization becomes a corporation, with shares that are listed on a stock exchange. Examples are Australian Securities Exchange (1998), Euronext (merged with New York Stock Exchange), NASDAQ (2002), the New York Stock Exchange (2005), Bolsas y Mercados Españoles, and the São Paulo Stock Exchange (2007).
OTHER TYPES OF EXCHANGES

In the 19th century, exchanges were opened to trade forward contracts on commodities. Exchange traded forward contracts are called futures contracts. These commodity exchanges later started offering future contracts on other products, such as interest rates and shares, as well as options contracts. They are now generally known as futures exchanges.

THE FUTURE OF STOCK EXCHANGES

The future of stock trading appears to be electronic, as competition is continually growing between the remaining traditional New York Stock Exchange specialist system against the relatively new, all Electronic Communications Networks, or ECNs. ECNs point to their speedy execution of large block trades, while specialist system proponents cite the role of specialists in maintaining orderly markets, especially under extraordinary conditions or for special types of orders.

The ECNs contend that an array of special interests profit at the expense of investors in even the most mundane exchange-directed trades. Machine-based systems, they argue, are much more efficient, because

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they speed up the execution mechanism and eliminate the need to deal with an intermediary.

Historically, the 'market' (which, as noted, encompasses the totality of stock trading on all exchanges) has been slow to respond to technological innovation. Conversion to all-electronic trading could erode/eliminate the trading profits of floor specialists and the NYSE's "upstairs traders."

William Lupien, founder of the Instinet trading system and the OptiMark system, has been quoted as saying "I'd definitely say the ECNs are winning... Things happen awfully fast once you reach the tipping point. We're now at the tipping point."

Congress mandated the establishment of a national market system of multiple exchanges in 1975. Since then, ECNs have been developing rapidly.

One example of improved efficiency of ECNs is the prevention of front running, by which manual Wall Street traders use knowledge of a customer's incoming order to place their own orders so as to benefit from the perceived change to market direction that the introduction of a large order will cause. By executing large trades at lightning speed without manual intervention, ECNs make impossible this illegal practice, for which several NYSE floor brokers were investigated and severely fined
in recent years. Under the specialist system, when the market sees a large trade in a name, other buyers are immediately able to look to see how big the trader is in the name, and make inferences about why s/he is selling or buying. All traders who are quick enough are able to use that information to anticipate price movements.

ECNs have changed ordinary stock transaction processing (like brokerage services before them) into a commodity-type business. ECNs could regulate the fairness of initial public offerings (IPOs), oversee Hambrecht's OpenIPO process, or measure the effectiveness of securities research and use transaction fees to subsidize small- and mid-cap research efforts.

Some, however, believe the answer will be some combination of the best of technology and "upstairs trading" — in other words, a hybrid model.

Trading 25,000 shares of General Electric stock (recent quote: $34.76; recent volume: 44,760,300) would be a relatively simple e-commerce transaction; trading 100 shares of Berkshire Hathaway Class A stock (recent quote: $139,700.00; recent volume: 850) may never be. The choice of system should be clear (but always that of the trader), based on the characteristics of the security to be traded.
Even with ECNs forming an important part of a national market system, opportunities presumably remain to profit from the spread between the bid and offer price. That is especially true for investment managers that direct huge trading volume, and own a stake in an ECN or specialist firm. For example, in its individual stock-brokerage accounts, "Fidelity Investments runs 29% of its undesignated orders in NYSE-listed stocks, and 37% of its undesignated market orders through the Boston Stock Exchange, where an affiliate controls a specialist post."

Fidelity says these arrangements are governed by a separate brokerage "order-flow management" team, which seeks to obtain the best possible execution for customers, and that its execution is highly rated.
REFERENCES


