**INTRODUCTION**

Investment is the employment of funds with the aim of achieving additional income or growth in value. The essential quality of an investment is that it involves ‘waiting’ for a reward. It involves the commitment of resources which have been saved or put away from current consumption in the hope that some benefits will accrue in future. The term ‘investment’ does not appear to be as simple as it has been defined. Investment has been further categorized by financial experts and economists. It has also often been confused with the term speculation. The following discussion will give an explanation of the various ways in which investment is related or differentiated from the financial and economic sense and how speculation differs from investment. However, it must be clearly established that investment involves long-term commitment. Investment may be defined as an activity that commits funds in any financial form in the present with an expectation of receiving additional return in the future. The expectations bring with it a probability that the quantum of return may vary from a minimum to a maximum. This possibility of variation in the actual return is known as investment risk. Thus every investment involves a return and risk.

Investment is an activity that is undertaken by those who have savings. Savings can be defined as the excess of income over expenditure. An investor earns/expects to earn additional monetary value from the mode of investment that could be in the form of financial assets.

The three important characteristics of any financial asset are:

* Return-the potential return possible from an asset.
* Risk-the variability in returns of the asset form the chances of its value going down/up.
* Liquidity-the ease with which an asset can be converted into cash.

Investors tend to look at these three characteristics while deciding on their individual preference pattern of investments. Each financial asset will have a certain level of each of these characteristics.

**Returns:**

A major purpose of investment is to set a return of income on the funds invested. On a bond an investor expects to receive interest. On a stock, dividends may be anticipated. The investor may expect capital gains from some investments and rental income from house property.

**Risk:**

In the investing world, the dictionary definition of risk is the chance that an investment’s actual return will be different than expected. Technically, this is measured in statistics by standard deviation. Risk means you have the possibility of losing some, or even all, of our original investment.

Risk consists of 2 components:

1. Systematic risk (uncontrollable risk) non-diversifiable risk
2. Unsystematic risk (controllable risk) diversifiable risk

**Systematic risk:**

The risk that affects the entire market, the factors are beyond the control of the corporate and the investor. They cannot be avoided by the investor. It is sub-divided into.

1. Market risk
2. Interest rate risk
3. Purchase power risk

**Unsystematic risk of diversifiable risk:**

It is unique to the firm or industry. It stems from managerial inefficiency, technological changes, consumer preferences, labour problems etc. The magnitude and nature differs from firm to firm, industry to industry.

It can be classified into 2 types

1. **Business risk**
* Internal risk
* Fluctuations in sales
* Research and development
* Personal management
* External risk (p,e,s,t factors)
1. **Financial risk**

 It is associated with the capital structure of the company.

**Statement of the problem**

The problem undertaken to study in the present project work is to calculate returns and risk associated with the stocks of different telecommunication companies listed on stock exchange. Returns and risk are calculated to study the price movements in the stock market. After doing this project one can make decisions regarding the investment in which company one can expect.

**Need for the study**

Stock markets have existed in India for a very long time yet the professionals in the field of finance talking negatively about these instruments. The reason why I bring it up again is that it is very important to understand what the old system was verse the new the old system were based on trust. On the other hand, the modern market place of stock markets, having well developed risk management, transparent rules for entry and stringent regulation, is faceless. That the old type system had to transform into a new is definitely clear they have played a very important role in the past. In is merely that had to modern markets to keep up with the demand of the times. The need of the study is to identify the different types of investment alternatives available in the market and analyze their risk and return.

**Objectives of the study:**

1. To find expected rate of return & standard deviation of the selected companies scrips.
2. To observe the relation between returns and risk in the daily fluctuations in prices of equity securities.
3. To know the price fluctuations of the shares in the stock market for a particular period.
4. To know the importance of the risk analysis in trading.
5. To know the shares yielding highest return from the companies selected for the study.
6. To know risk level of various companies selected for the study.
7. To give an insight to the investor who are looking for low risk and better return trade off from the above analysis.

**Scope of the study:**

The present study has been undertaken to observe the risk and returns associated with selected telecommunication companies and to know the price fluctuations of the shares in the stock market for a particular period the study also includes finding the importance of the risk analysis in trading and to measure price volume relationship for individual stocks. The study also aims at knowing the shares yielding highest return from the companies selected for the study and to know risk level of various companies selected for the study. This will helpful to the investors while investing in the securities.

**Research methodology**

This research study has been based on descriptive and explanative and exploratory method. It describes securities market in India, and explains risk and returns involved in equity investment. Finally it explores various alternatives regarding equity investment.

**SOURCES OF DATA**

**PRIMARY SOURCE**

Primary data is the data or information collected directly from the respondents and concerned officials. It mainly includes questionnaire and interviews.

For this study, no primary data is used.

 **SECONDARY SOURCE**

To fulfill the information need of the study, the data is collected from secondary sources. The secondary data was collected on the basis of organizational file, official records, news papers, magazines, management books, preserved information in the company’s database and website of the company.

**Limitations of the study:**

1. This project covers only selected companies of telecommunication industry.
2. The study limited only to few selected stocks. The NSE nifty may consist of more scripts. So it does not truly reflect as a whole.
3. This project report data collected from secondary sources only.
4. This project analysis report may not be applicable in all equity markets.
5. The accuracy of the study is based on the accuracy of the data presented in the stock market listings.
6. Detailed study of topic was not possible due to limited size of the project. The time taken for the study is limited.

**INTRODUCTION TO THE INDIAN STOCK MARKET**

The Indian broking industry is one of the oldest trading industries that have been around even before the establishment of BSE in 1875

* **Inception**- The roots of a stock market in India began in the **1860s** during the American Civil War that led to a sudden surge in the demand for cotton from India resulting in setting up of a number of joint stock companies that issued securities to raise finance.
* **Bubble burst**- The early stock market saw a boom till 1865, and then in Jul 1865, what was then used to be called the share mania ended with burst of the stock market bubble. In the aftermath of the crash, banks, on whose building steps share brokers used to gather to seek stock tips and share news, disallowed them to gather there, thus forcing them to find a place of their own, which later turned into the **Dalal Street.** A group of about 300 brokers formed the stock exchange in Jul 1875, which led to the formation of a trust in 1887 known as the “**Native Share and Stock Brokers Association”.**
* **Beginning of a new phase**- A new phase in the Indian stock markets began in the 1970s, with the introduction of Foreign Exchange Regulation Act (FERA) that led to divestment of foreign equity by the multinational companies, which created a surge in retail investing.
* **Growth supporting factors**-The early 1980s witnessed another surge in stock markets when major companies such as Reliance accessed equity markets for resource mobilization that evinced huge interest from retail investors. A new set of economic and financial sector reforms that began in the early 1990s gave further impetus to the growth of the stock markets in India.
* **Setting up of SEBI**- the Securities and Exchange Board of India **(SEBI),** which was set up in 1988 as an administrative arrangement, was given statutory powers with the enactment of the SEBI Act, 1992. The broad objectives of the SEBI include-
	+ To protect the interests of the investors in securities.
	+ To promote the development of securities markets and to regulate the securities markets.
* **Incorporation of NSE**- NSE was incorporated in Nov 1992 as a tax paying company, the first of such stock exchanges in India, since stock exchanges earlier were trusts, being run on no-profit basis. NSE was recognized as a stock exchange under the Securities Contracts (Regulations) Act 1956 in Apr 1993. It commenced operations in wholesale debt segment in Jun 1994 and capital market segment (equities) in Nov 1994. The setting up of the National Stock Exchange brought to Indian capital markets several innovations and modern practices and procedures such as nationwide trading network, electronic trading, greater transparency in price discovery and process driven operations that had significant bearing on further growth of the stock markets in India.
* Despite passing through a number of changes in the post liberalization period, the industry has found its way towards sustainable growth. A stock broker is a regulated professional who buys and sells shares and other securities through market makers or agency only firms on behalf of investors. To work as a broker a certificate of registration from SEBI is mandatory after satisfying all the terms and conditions.

**FINANCIAL MARKETS**

The financial markets have been classified as

* Cash market (spot market) – largest traded, the spot market or cash market is a commodities or securities market in which goods are sold for cash and delivered immediately.
* Derivatives market – after cash market, the derivatives markets are the financial markets for derivatives. The market can be divided into two that for exchange traded derivatives and that for over-the-counter derivatives.
* Debt market - The bond market (also known as the debt, credit, or fixed income market) is a financial market where participants buy and sell debt securities.
* Commodities market – after commodities market, Commodity markets are markets where raw or primary products are exchanged. These raw commodities are traded on regulated [commodities exchanges, in](http://en.wikipedia.org/wiki/Commodities_exchange) which they are bought and sold in standardized contracts.

**NEED OF A BROKER**

A broker is a person or firm that facilitates trades between customers. It is advisable to conduct transactions through an intermediary. For example one needs to transact through a trading member of a stock exchange if they intend to buy or sell any security on stock exchanges. One needs to maintain an account with a depository if they intend to hold securities in demat form. You need to deposit money with a banker to an issue if you are subscribing to public issues. One gets guidance if you are transacting through an intermediary. A broker acts as a go between and, in doing so, does not assume any risk for the trade. The broker does, however, charge a commission. A broking firm acts as an intermediary between NSE and Client. Stock Brokers come under the category of Market Players. The membership in the stock exchange can be granted as individual membership and corporate membership.

CLIENT

NSE

BROKER

The market intermediaries play an important role in the development of Securities Market by providing different types of services. There are two major stock-exchanges NSE (composition of 50 stocks) and BSE (Composition of 30 stocks).

**Exchange-wise Stock Brokers Registered with SEBI (As on March 31, 2008)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S NO.** | **STOCK EXCHANGE** | **TOTAL NO. OF STOCK BROKERS** | **NO.OF CORPORATE BROKERS** | **CORPORATE BROKERS AS A % OF TOTAL STOCK BROKERS** |
| **1.** | Ahmadabad | 321 | 157 | 48.91 |
| **2.** | Bangalore | 256 | 124 | 48.44 |
| **3.** | BSE | 946 | 767 | 81.08 |
| **4.** | Bhubaneswar | 214 | 19 | 8.88 |
| **5.** | Calcutta | 957 | 204 | 21.32 |
| **6.** | Cochin | 435 | 80 | 18.39 |
| **7.** | Coimbatore | 135 | 48 | 35.56 |
| **8.** | Delhi | 374 | 213 | 56.95 |
| **9.** | Gauhati | 103 | 3 | 2.91 |
| **10.** | ISE | 935 | 345 | 36.90 |
| **11.** | Jaipur | 488 | 18 | 3.69 |
| **12.** | Ludhiana | 297 | 85 | 28.62 |
| **13.** | MPSE | 174 | 34 | 19.54 |
| **14.** | Madras | 181 | 71 | 39.23 |
| **15.** | NSE | 1,129 | 1,039 | 92.03 |
| **16.** | OTCEI | 719 | 551 | 76.63 |
| **17.** | Pune | 188 | 55 | 29.26 |
| **18.** | UPSE | 354 | 78 | 22.03 |
| **19.** | Vadodara | 311 | 64 | 20.58 |

**AN INTRODUCTION TO EDELWEISS**

Edelweiss capital was started by two IIM graduates Mr. Rashesh Shah and Mr. Venkat Ramaswamy. The Company is operating in India as an Integrated Investment Banking Company. Edelweiss strives to be a thinking organization, trying to be innovative and imaginative. The policy of the company ensures transparency and greater opportunities for all its clients.

**SNAPSHOT**

**Approach**

Client Focus, Execution orientation, Culture, Professional Integrity, Research Driven.

**Aim**

Building long term relationships with the clients and equipping the clients about the market knowledge so that they can address the day by day fast growing opportunities.

**USP**

The single minded focus on thought leadership and relentless pursuit of the ‘new’ and ‘different’ is it in products, services or people, model of employee ownership.

**Culture**

Entrepreneurial and result driven emphasizing confidentiality and integrity.

**Operations**

**S**tock broking, research services, distribution of financial products, depository services, and proprietary trading, 47 per cent of its revenue is from treasury and wholesale financing.

**Research (POD)**

90 researchers, covers over **200 stocks** across **19 sectors** that accounts for about **70%** of the total market capitalization.

**Offices**

Operates from 56 offices in 21 Indian cities, employs over 1600 employees.

**Major clients**

ESL focuses on the wholesale equity segment, providing broking services to Institutional and corporate clients and high net worth individuals.

**Market Capitalization**- Rs 5,500 crore (Rs 55 billion),

**Equity Base**- over Rs 2,000 crores

**Website**- www.edelcap.com,

 www.edelweiss.in

**HIGHLIGHTS**

* EBL has a strong equity research team, which covers approximately 50 - 60 companies within 6 industry categories, with a focus on large and medium cap stocks.
* The company’s Equities Broking division has now expanded to include 215 stocks in 19 sectors accounting for 70 percent of market capitalization.
* Alternate Asset Management’s total asset value currently stands at $625 million.
* Wholesale Financing division soared to Rs. 141 crore in FY08 from Rs. 7 crore in the previous year.
* Edelweiss is amongst the largest institutional broking firm, enjoying a healthy 5% plus market share in the institutional broking segment.
* Edelweiss is also in the process of widening its product portfolio by penetrating into product specific and sector specific niches, which will broaden and strengthen its entire institutional business.
* Asset base of over INR 800 cr. In lending business.
* It is empanelled with over 40 leading FIIs, FIs, Mutual Funds, Banks and Insurance companies.
* Listing in various stock exchanges NSE: EDELWEISS, BSE: 532922, Bloomberg: EDEL.IN.
* Awarded as “Best Merchant Banker” by the Outlook Money NDTV Profit Awards, 2008.
* Ranked among the top ten players in Annual Bloomberg and Annual Thomson- Reuters.
* Present Chairman and CEO- Mr. Raskesh Shah.
* Well respected Brand with strong position in relevant market segments.

**STRENGTHS OF THE COMPANY**

* Has an integrated business model, which specializes in providing a wide range of financial products and services such as investment banking, institutional equities, wealth management, and wholesale finance.
* Is well positioned to leverage the growing financial sector in India and become a significant market player, especially in areas like investment banking, institutional equities etc.
* Has a strong research platform with research products, such as fundamental and alternative research, catering to institutions and HNWIs and retails. The fundamental research covers 190 companies which represent ~69% of the market capitalization of all the companies listed on BSE as on August, 2008. On the other hand alternative research utilizes quantitative techniques to identify short term and medium term investment opportunities in the capital market.
* The company has a strong internal controls and risk management system employed throughout the firm to access and monitor risk across various business line. The Risk exposure is monitored and controlled through a variety of separate but complementary financial, credit and operational reporting system.
* Is an established brand with strong track record of high growth and profitability?
* Is strongly focused on nurturing & maintaining strong business relationships with corporate & institutional clients. Well positioned to utilize the immense opportunities in the Indian financial sector.

**RECENT APPROACH**

Edelweiss is a premium broking firm whose targets were only HNWI clients. The company is providing the same research facility to its retail clients as it provided to its premium clients. It is offering an online platform to the clients which will increase transparency and make business hassle free for the clients. The company is making a shift from ESL (Edelweiss Securities limited) to EBL (Edelweiss Broking Limited).

**The benefits offered by the company to its clients are:-**

* Online Platform.
* News alert through Mobile messages and e-mail.
* Dealer support.
* Portfolio Doctor (Turtle).
* Toll Free Number (Helpline Services).

Thus the company is customer focused and protects the wealth of its customers through its innovative ideas. The company is repositioning itself from a niche marketer to a mass marketer and is aiming at Brand Repositioning.

**THE PRODUCTS AND SERVICES OFFERED BY EDELWEISS ARE AS FOLLOWS**

Capital based.

Agency based.

**SERVICES**

Recent initiatives/high growth areas.

**Investment Banking**:

This includes services such as M&A advisory, transaction execution relating to structured finance, equity markets, real estate, and infrastructure.

**Institutional Equities**

Edelweiss’ Institutional equities business comprises institutional equity sales, sales-trading, and research.

**Private Client Brokerage**

These services are targeted at high net worth and other individuals who actively invest and trade in the equity market.

**Wealth Management**

Wealth management involves providing investment advisory, planning & asset deployment services to high net-worth individuals.

**Asset Management**

This involves both asset management as well as investment advisory services. Under this, the company advises three funds with an aggregate corpus of over USD 330 mn.

**Insurance Brokerage**

Edelweiss has also entered the non-life insurance brokerage business as an IRDA registered broker in 2005 and it distributes insurance products through its subsidiary, Edelweiss Insurance Brokers Limited.

**Treasury**

The internal treasury operations manage the excess capital funds by investing the same in low risk strategies to achieve risk-adjusted returns.

**Wholesale financing**

Wholesale business provides the high net worth individual and corporate clients with facilities such as loans against shares, loans to finance IPO subscriptions, and loans against mutual fund units. This is done through a subsidiary, ECL Finance Limited.

 **PRODUCTS**

* **Advisory Based Broking (ABB)** – an asset management service.
* **Margin Funding**-

The Company provides funds to people who wish to invest large amount in stock market but are lacking in fund. Fund is provided against securities. The company has a policy of ‘hair cut’ which means that the assets that are kept as securities, they are valued less than their original price. Fund is provided for investing in only those stocks that are listed in the stock broker’s list of the company. This is to save the company from loss as company has those stocks in the list that are less volatile and whose market value is good.

* **Structured Product**

As such, structured products were created to meet specific needs that cannot be met from the standardized financial instruments available in the markets.

Structured products can be used as an alternative to a direct investment, as part of the asset allocation process to reduce risk exposure of a [portfolio, or](http://en.wikipedia.org/wiki/Portfolio_%28finance%29) to utilize the current market trend.

* **Mutual Fund**

This is a product offered by the company that takes money from the investors and invests it in the stock market on their behalf as customers are not fully aware of the stock market. They take money from many customers and collectively invest in the stock market.

* **Insurance**

Another product offered by the company in which the agent gets commission on every insurance policy done by him.

* **Arbitrage**

Arbitrage, or true arbitrage, involves buying and selling a security and taking advantage of prices differences that may exists on different markets. While rare, this does happen from time to time

* **Portfolio Management Services**- this product comes under wealth management.
* Customers are advised where they should invest their total investment savings.
* **Initial Public Offering (IPO)** - This product invites public to participate in the bidding process.
* **Demat account**

It refers to Dematerialized Account. It is necessary to sell and buy stocks. So it is just like a bank account where actual money is replaced by shares. One has to approach the DPs, to open his demat account. So, one doesn’t have to possess any physical certificates showing that you own these shares. They are all held electronically in the account. As one buys and sells the shares, they are adjusted in their account. Just like a bank passbook or statement, the DP provides with periodic statements of holdings and transactions.

* **Commodity market**- In this market metals and agricultural products are traded.
* MCX for metal products and NCDEX for agricultural products.

**INTRODUCTION OF TELECOMMUNICATION INDUSTRY**

Telecommunication is the transmission of messages over significant distances for the purpose of communication. In the modern age of electricity, telecommunications has involved the use of electric means such as the telegraph and telephone, the use of microwave communications and the use of fiber optics.

The telecom industry plays an important role in the world economy approximately 20% of the world population has access to the Internet. The telecom industry is vast and offers a wide range of career opportunities on both the hardware and software fronts. These prospects include functional jobs in mobile telephony, internet protocol media systems, wireless communications, GSM, GPRS and CDMA technology, VoIP, data networks and optical networks amongst others.

The global leaders in the field are companies like AT&T, Vodafone, Verizon, SBC Communications and Qwest Communications, who are all trying to take the advantage of the industry’s spiraling growth. The focus of telecom companies going forward is likely to be on leveraging more sophisticated telecommunication platforms like broadband technologies, LAN-WAN inter networking, optical networking, voice over Internet protocol and wireless data service etc.

**WIRELESS MEDIA**

**Cellular Telephony:**

The technology that gives a person the power to communicate anytime anywhere has spawned an entire industry in mobile telecommunications. Mobile telephones have become a business/economy,

The equipment and handset vendors are keeping the growth story going. If two years ago, capacity enhancement cost over $100 per subscriber, it is under $40 now. Nokia is now getting increasingly aggressive in the Indian telecom equipment market. Recent data suggests that its equipment rates have come down to $25 per subscriber- once again, among the lowest in the world.

In just a decade, the Indian telecom sector has transformed itself from a musty tome of arcane into a growth story on steroids.

**CELLULAR WORLD**

Cellular telephones have revolutionized the communications arena, redefining how we perceive voice communications. Traditionally cellular phones remained out of hands of most consumers due to their high cost.

As a result, cell phone carriers have invested time and resources into finding ways to give the systems higher capacity and thus lower cost. Cell systems are benefiting from this research and starting to develop into large-scale consumer products.

Today, cellular phones are truly consumer electronics devices with over 75 million subscribers. Since cell phones have ceased to be an exclusive status symbol of high-powered lawyers and are now in the hands of millions of consumers. They are now incredibly cost sensitive. Specifically it is not the cost of the device that counts, but the cost of using the device. Today, more than ever, cellular companies are looking for ways to bring down the call cost to attain even higher market penetration, especially in metropolitan areas.

**PROFILE OF SELECTED COMPANIES FOR RISK RETURN ANALYSIS**

**AIRTEL**

Airtel comes to you from Bharti Tele-Ventures Limited - a part of the biggest private integrated telecom conglomerate, Bharti Enterprises. A consortium of giants in the telecommunication business. In it's six years of pursuit of greater customer satisfaction, Airtel has redefined the business through marketing innovations, continuous technological up gradation of the network, introduction of new generation value added services and the highest standard of customer care.

Bharti is the leading cellular service provider, with an all India footprint covering all 23 telecom circles of the country. It has over 12 million satisfied customers.

Cellular telephony was introduced in India during the early 1990s. At that time, there were only two major private players, **Bharti (Airtel) and Essar (Essar)** and both these companies offered only **post-paid services**. Initially, the cellular services market registered limited growth.

Moreover, these services were mostly restricted to the metros. Other factors such as lack of awareness among people, lack of infrastructural facilities, low standard of living, and government regulations were also responsible for the slow growth of cellular phone services in India.

Although the cellular services market in India grew during the late 1990s (as the number of players increased and tariffs and handset prices came down significantly) the growth was rather marginal. This was because the cellular service providers offered only post-paid cellular services, which were still perceived to be very costly as compared to landline communications.

**Bharti’s Mission**

To be globally admired for telecom services that delight customers**.**

We will meet global standards for telecom services that delight customers through:

* Customer Service Focus
* Empowered Employees
* Cost Efficiency
* Unified Messaging Solutions
* Innovative products and services
* Error- free service delivery

**Board of Directors**

The Board of Directors of the Company has an optimum mix of Executive and Non-Executive Directors, which consists of three Executive and fifteen Non-Executive Directors. The Chairman and Managing Director, Mr. Sunil Bharti Mittal, is an Executive Director and the number of Independent Directors on the Board is 50% of the total Board strength.

The independence of a Director is determined on the basis that such director does not have any material pecuniary relationship with the Company, its promoters or its management, which may affect the independence of the judgment of a Director.

The Board members possess requisite skills, experience and expertise required to take decisions, which are in the best interest of the Company.

**IDEA**

Idea Cellular is a part of the US $24 billion Aditya Birla Group and a leading GSM mobile services operator with licenses to operate in 13 telecom service areas in India. The company has operations in Delhi, Himachal Pradesh, Rajasthan, Haryana, Uttar Pradesh (W) & Uttaranchal, Uttar Pradesh (E), Madhya Pradesh & Chattisgarh, Gujarat, Maharashtra & Goa, Andhra Pradesh and Kerala with the planned expansion into Mumbai, Bihar & Jharkhand.

**MISSION**

**Our Circle**

The Indian telecommunications market for mobile services is divided into 23 “Circles”. There are four “metropolitan” Circles, covering the cities of Mumbai, Delhi, Kolkata and Chennai, and 19 Circles classified by the Government as category “A”, category “B” or category “C”, which cover the rest of India. These classifications are based principally on a Circle’s revenue generating potential, with metropolitan and category A Circles having the highest revenue potential.

**Established Circles**

We operate in the metropolitan Circle of Delhi, the category A Circles of Andhra Pradesh, Gujarat and Maharashtra, and the category B Circles of Haryana, Kerala, Madhya Pradesh and Uttar Pradesh (West).

Licenses for the Maharashtra and Gujarat Circles were awarded to us in December 1995, with network rollout and commercial launch achieved in 1997. Subsequently, in January 2000, we merged with Tata Cellular Limited, the mobile operator in the Andhra Pradesh Circle, and integrated its operations into ours by January 2001. In February 2001, we acquired RPG Cellcom Limited, the mobile operator in the Madhya Pradesh Circle, with full integration of this Circle with ours achieved by June 2001. We acquired the license for the Delhi Circle during the fourth mobile license auction in October 2001, with network rollout and commercial launch by November 2002. Escotel Mobile Communications Private Limited (“Escotel”), which we acquired in January 2004, was awarded the original licenses in the Circles of Haryana, Uttar Pradesh (West) and Kerala. We re-branded these Circles and integrated them with ours by June 2004.

**New Circles**

In connection with the acquisition of Escotel, we also acquired Escorts Telecommunications Limited (“Escorts”), which was awarded licenses for the New Circles. Due to certain existing license conditions we were unable to complete the transfer of shares of Escorts until June 2006. However, we ensured that Escorts met the first phase of network requirements for these New Circles in June 2005 in accordance with the relevant licenses (as amended following the payment of a penalty by us on behalf of Escorts).

Following significant investment by us in the roll-out of the network in the New Circles, amounting to approximately Rs. 4,678 million upto September 30, 2006, we were able to achieve full commercial launch of mobile services in the New Circles between September and November 2006 in a manner which also met the network roll-out requirements of the licenses which were to be completed by June 2007.

**Key People**

**Board of Directors –**

Mr. Kumar Mangalam Birla (Chairman)

Smt. Rajashree Birla

Mr. M.R. Prasanna

Mr. Saurabh Misra

Mr. Sanjeev Aga (Managing Director)

Mr. Arun Thiagarajan

Ms. Tarjani Vakil

Mr. Mohan Gyani

Mr. Biswajit Anna Subramanian

Mr. Gian Prakash Gupta

**Management Team –**

**Corporate Leadership Team**

Mr. Sanjeev Aga, Managing Director

Mr. Anil J. Jhala, Chief Financial Officer

Mr. Anil K. Tandan, Chief Technology Officer

Mr. Prakash K. Paranjape, Chief Information Officer

Mr. Pradeep Shrivastava, Chief Marketing Officer

Mr. Amar Babu R K, Chief Service Delivery Officer

Mr. Vinay K. Razdan, Chief Human Resource Officer

Mr. Rajat K. Mukarji, Chief Corporate Affairs Officer

Mr. Rajesh K. Srivastava, Chief Materials & Procurement Officer

Mr. Ambrish Jain, Chief Operating Officer, Corporate

Mr. Himanshu Kapania, Chief Operating Officer, Corporate

**RELIANCE**

Reliance Communications is the flagship company of the Anil Dhirubhai Ambani Group (ADAG) of companies. It is listed on the National Stock Exchange and the Bombay Stock Exchange, and is India’s leading integrated telecommunication company with over 30 million customers. The business encompasses a complete range of telecom services covering mobile and fixed line telephony. It includes broadband, national and international long distance services and data services along with an exhaustive range of value-added services and applications with a constant endeavor to achieve customer delight by enhancing the productivity of the enterprises and individuals.

It is ranked among **Asia's 6 Topmost Valuable Telecom Companies** andis India's foremost truly integrated telecommunications service provider. The company's customer base of over 31 million including close to 1 million individual overseas retail customers, and is rated among the **Top 10 Asian Telecom companies**. Reliance Communications corporate clientele includes 600 Indian and 250 multinational corporations, and over 200 global carriers.

The company has established a pan-India, next generation, integrated (wireless and wire line), convergent (voice, data and video) digital network that is capable of supporting best-of-class services spanning the entire Infocomm value chain, covering over 6000 towns and 3,00,000 villages. Reliance Communications owns and operates **World's largest next generation IP enabled connectivity infrastructure**, comprising over 150,000 kilometers of fiber optic cable systems in India, USA, Europe, Middle East and the Asia Pacific region. The company's subsidiary, FLAG Telecom owns **World's largest private undersea cable system**, spanning 65,000 kilometers connects the top business centers in developed and emerging markets across 6 continents.

##  Vision

“We will leverage our strengths to execute complex global-scale projects to facilitate leading-edge information and communication services affordable to all individual consumers and businesses in India.

We will offer unparalleled value to create customer delight and enhance business productivity.

We will also generate value for our capabilities beyond Indian borders and enable millions of India's knowledge workers to deliver their services globally.”

## Structure


#### Structure of Organization

**VODAFONE**

**Vodafone Group Plc** is a British [multinational](http://en.wikipedia.org/wiki/Multinational_corporation) telecommunications company headquartered in [London](http://en.wikipedia.org/wiki/London) and with its registered office in [Newbury, Berkshire](http://en.wikipedia.org/wiki/Newbury%2C_Berkshire). It is the [world's second-largest mobile telecommunications company](http://en.wikipedia.org/wiki/List_of_mobile_network_operators) measured by both subscribers and 2011 revenues (in each case behind [China Mobile](http://en.wikipedia.org/wiki/China_Mobile)), and had 439 million subscribers as of December 2011.

Vodafone owns and operates networks in over 30 countries and has partner networks in over 40 additional countries.[[7]](http://en.wikipedia.org/wiki/Vodafone#cite_note-7) Its [Vodafone Global Enterprise](http://en.wikipedia.org/wiki/Vodafone_Global_Enterprise)division provides telecommunications and IT services to corporate clients in over 65 countries. Vodafone also owns 45% of [Verizon Wireless](http://en.wikipedia.org/wiki/Verizon_Wireless), the largest mobile telecommunications company in the [United States](http://en.wikipedia.org/wiki/United_States) measured by subscribers.

Vodafone has a primary listing on the [London Stock Exchange](http://en.wikipedia.org/wiki/London_Stock_Exchange) and is a constituent of the [FTSE 100 Index](http://en.wikipedia.org/wiki/FTSE_100_Index). It had a [market capitalisation](http://en.wikipedia.org/wiki/Market_capitalisation) of approximately £89.1 billion as of 6 July 2012, the third-largest of any company listed on the London Stock Exchange. It has a secondary listing on[NASDAQ](http://en.wikipedia.org/wiki/NASDAQ).

## Name

The name Vodafone comes from **vo**ice **da**ta **fone**, chosen by the company to "reflect the provision of voice and data services over mobile phones".

## History

The evolution of 'Vodafone' brand started in 1982 with the establishment of 'Racal Strategic Radio Ltd' subsidiary of [Racal Electronics plc](http://en.wikipedia.org/wiki/Racal_Electronics_plc) - UK's largest maker of military radio technology. The same year, Racal Strategic Radio Ltd formed a joint venture with [Millicom](http://en.wikipedia.org/wiki/Millicom%22%20%5Co%20%22Millicom) called 'Racal Vodafone', which would later evolve into the present day Vodafone.

**TATADOCOMO**

**TATA DoCoMo** is an Indian cellular service provider on the [GSM](http://en.wikipedia.org/wiki/GSM) and platform-arising out of the strategic joint venture between [Tata Teleservices](http://en.wikipedia.org/wiki/Tata_Teleservices)(subsidiary of Indian conglomerate [Tata Group](http://en.wikipedia.org/wiki/Tata_Group)) and Japanese telecom giant [NTT Docomo](http://en.wikipedia.org/wiki/NTT_Docomo) (subsidiary of [Nippon Telegraph and Telephone](http://en.wikipedia.org/wiki/Nippon_Telegraph_and_Telephone)) in November 2008. It is the country's [sixth largest operator](http://en.wikipedia.org/wiki/List_of_mobile_network_operators_of_India) in terms of subscribers (including both GSM and CDMA).

## History

Tata DoCoMo is part of the Indian conglomerate Tata Group. The company received licenses to operate GSM services in nineteen telecom circles and was allotted spectrum in eighteen of these circles and launched GSM services on 24 June 2009. It began operations first in [South India](http://en.wikipedia.org/wiki/South_India) and currently operates GSM services in eighteen of twenty two telecom circles. It has licences to operate in [Delhi](http://en.wikipedia.org/wiki/Delhi) but has not been allocated spectrum from the Government. Docomo provides services throughout India. Tata DOCOMO offers both [prepaid](http://en.wikipedia.org/wiki/Prepaid_mobile_phone%22%20%5Co%20%22Prepaid%20mobile%20phone)and postpaid [cellular phone](http://en.wikipedia.org/wiki/Cellular_phone) services. It has become very popular with its one second pulse especially in semi-urban and rural areas.

On 5 November 2010, Tata DOCOMO became the first private sector telecom company to launch [3G](http://en.wikipedia.org/wiki/3G) services in India. Tata DOCOMO had about 42.34 million users at the end of December 2010.

**Rebranding**

On 20 October 2011, Tata DoCoMo brought its brands - CDMA, GSM, Walky (Fixed Wireless Phone), Photon, INTERNET - under the Tata Docomo name. All subscribers to these services were migrated to the Docomo brand on 20 October 2011. The companies other brands - Virgin Mobile and T24 - are not part of the rebranding and will retain their names.

## CDMA

Tata Docomo CDMA offers services in [Assam](http://en.wikipedia.org/wiki/Assam), [Delhi](http://en.wikipedia.org/wiki/Delhi), [Uttar Pradesh](http://en.wikipedia.org/wiki/Uttar_Pradesh), [North-East](http://en.wikipedia.org/wiki/Northeast_India) and [Jammu and Kashmir](http://en.wikipedia.org/wiki/Jammu_and_Kashmir) while GSM service remains unavailable in these telecom circles.

## 3G

On 19 May 2010, the 3G spectrum auction in India ended. Tata Docomo ltd paid  5864.29 crores for spectrum in 12 circles. The circles it will provide 3G in are [MadhyaPradesh](http://en.wikipedia.org/wiki/Madhya_Pradesh%22%20%5Co%20%22Madhya%20Pradesh), [Gujarat](http://en.wikipedia.org/wiki/Gujarat), [Haryana](http://en.wikipedia.org/wiki/Haryana),  [Karnataka](http://en.wikipedia.org/wiki/Karnataka),  [Kerala](http://en.wikipedia.org/wiki/Kerala),  [Maharashtra](http://en.wikipedia.org/wiki/Maharashtra)  & [Goa](http://en.wikipedia.org/wiki/Goa),  [Punjab](http://en.wikipedia.org/wiki/Punjab%2C_India),  [Rajasthan](http://en.wikipedia.org/wiki/Rajasthan), [Uttar Pradesh (West)](http://en.wikipedia.org/wiki/Western_Uttar_Pradesh),  [Chennai](http://en.wikipedia.org/wiki/Chennai),  [Bihar](http://en.wikipedia.org/wiki/Bihar) and  [Jharkhand](http://en.wikipedia.org/wiki/Jharkhand). On 5 November 2010, Tata DOCOMO became the first private sector telecom company (third overall) to launch 3G services in India, with a 20 city launch. The company will be investing USD 500 million in network roll out nationally.

Tata Docomo's [HSPA+](http://en.wikipedia.org/wiki/Evolved_HSPA) 3G network, set up with the assistance of [NTT Docomo](http://en.wikipedia.org/wiki/NTT_Docomo), supports high-speed internet access with speeds of up to 21.1 Mbit/s. The network also supports high definition voice for superior quality voice calls. On July 19, 2011, Docomo and [Aircel](http://en.wikipedia.org/wiki/Aircel%22%20%5Co%20%22Aircel) entered into a roaming agreement for 3G services to jointly roll out 3G networks in the circles where they both have spectrum. In the spectrum auction held last year, Aircel won 3G spectrum in 13 of India's 22 circles (service areas), while TATA DOCOMO was awarded 3G licenses in nine circles. This deal would give both companies 3G coverage in 19 telecom circles of India. They will not have coverage on 3 circles - Delhi, Himachal Pradesh and Mumbai. The companies have three circles in common - Karnataka, Kerala and Punjab.

On December 14, 2011, Docomo ended its agreement with Aircel. Both operators ended the deal after the Department of Telecom said that such 3G arrangements were illegal, as the pacts violate licence terms and conditions.

Docomo had about 1.5 million 3G subscribers as of May 2011. Docomo Has Launched 3G Internet Access Devices 3G e-Sticks and 3G Wi-Fi Hubs .

**INTRODUCTION**

 Any rational investor, before investing his or her invertible wealth in the stock, analyses the risk associated with particular stock. The actual return he receives from a stock may vary from his expected return and the risk is expressed in terms of variability of return. The down side risk may be caused by several factors, either common to all stock or specific to a particular stock. Investor in general would like to analyze the risk factors and a through knowledge of the risk help him to plan his portfolio in such a manner so as to minimize the risk associated with the investment.

**RISK & RETURN**

Investment decisions are influenced by various motives. Some people invest in a business to acquire control & enjoy the prestige associated with in. some people invest in expensive yachts & famous villas to display their wealth. Most investors, however, are largely guided by the pecuniary motive of earning a return on their investment. For earning returns investors have to almost invariably bear some risk. In general, risk & return go hand in hand.

Sometimes the best investments are the ones you don't make. This is a maxim which best explains the complexity of making investments. There are many investment avenues available for investors today.

In financial planning, the investment goal must be considered in defining risk. If your goal is to provide an acceptable amount of retirement income, you should construct an investment portfolio to generate an expected return that is sufficient to meet your investment goal. But because there is uncertainty that the portfolio will earn its expected long-term return, the long-term realized return may fall short of the expected return. This raises the possibility that available retirement funds fall short of needs - that is, the investor might outlive the investment portfolio. This is an example of "shortfall risk." The magnitude and consequences of the potential shortfall deserve special consideration from investors. [[3]](http://www.bogleheads.org/wiki/Risk_and_return%3A_an_introduction#cite_note-3) However, since the uncertainty of return could also result in a realized return that is higher than the expected return, the investment portfolio might "outlive" the investor. Therefore, considerations of shortfall risk are subsumed by considering risk as theuncertainty of investment return.

Different people have different motives for investing. For most investors their interest in investment is an expectation of some positive rate of return. But investors cannot overlook the fact that risk is inherent in any investment. Risk varies with the nature of return commitment. Generally, investment in equity is considered to be more risky than investment in debentures & bonds. A closer look at risk reveals that some are uncontrollable (systematic risk) and some are controllable (unsystematic risk).

**RETURN**

Return is the primary motivating force that drives investment. It represents the reward for undertaking investment. Since the game of investing is about returns (after allowing for risk), measurement of realized (historical) returns is necessary to assess how well the investment manager has done.

In addition, historical returns are often used as an important input in estimating future prospective returns.

**Components of Return**

 The return of an investment consists of two components.

**Current Return:**

The first component that often comes to mind when one is thinking about return is the periodic cash flow, such as dividend or interest, generated by the investment. Current return is measured as the periodic income in relation to the beginning price of the investment.

**Capital Return:**

The second component of return is reflected in the price change called the capital return­­­- it is simply the price appreciation (or depreciation) divided by the beginning price of the asset. For assets like equity stocks, the capital return predominates.Thus, the total return for any security (or for that matter any asset) is defined as:

**Total Return = Current return + Capital return**

**RISK AND RETURN ANALYSIS**

**RISK**

Investor cannot talk about investment returns without talking about risk because investment decisions invariably involve a trade-off between the risk & return. Risk refers to the possibility that the actual outcome of an investment will differ from its expected outcome.

More specifically, most investors are concerned about the actual outcome being less than the expected outcome. The wider range of possible outcomes, the greater the risk. Investments have two components that create risk. Risks specific to a particular type of investment, company, or business are known as unsystematic risks. Unsystematic risks can be managed through portfolio diversification, which consists of making investments in a variety of companies & industries. Diversification reduces unsystematic risks because the prices of individual securities do not move exactly together. Increases in value & decreases in value of different securities tend to cancel one another out, reducing volatility. Because unsystematic risk can be eliminated by use of a diversified portfolio, investors are not compensated for this risk.

Systematic risks, also known as market risk, exist because there are systematic risks within the economy that affect all businesses. These risks cause stocks to tend to move together, which is why investors are exposed to them no matter how many different companies they own.

 Investors who are unwilling to accept systematic risks have two options. First, they can opt for a risk-free investment, but they will receive a lower level of return. Higher returns are available to investors who are willing to assume systematic risk. However, they must ensure that they are being adequately compensated for this risk. The Capital Asset Pricing Model theory formalizes this by stating that companies desire their projects to have rates of return that exceed the risk- free rate to compensate them for systematic risks & that companies desire larger returns when systematic risks are greater. The other alternative is to hedge against systematic risk by paying another entity to assume that risk. A perfect hedge can reduce risk to nothing except for the costs of the hedge.

**The market tends to move in cycles. A John Train says:**

“You need to get deeply into your bones the sense that any market, & certainly the stock market, moves in cycles, so that you will infallibly get wonderful bargains every few years, & have a chance to sell again at ridiculously high prices a few years later.”

**Systematic Risk**

Systematic Risk, as the name suggests is the risk inherent in the economic system. Macro factors such as domestic as well as international policies, employment rate, the rate and momentum of inflation and general level of consumer confidence etc. are what constitute systematic risk. Generally, investors cannot hedge or diversify against this risk as it affects all kinds of asset classes and affects the entire economy as such.

The systematic risk is further subdivided into three types.

1. Market risk
2. Interest rate risk
3. Purchasing power risk

**1. Market Risk:**

This is the possibility that the financial markets will drop in value and create a ripple effect in your portfolio. For example, if the stock market as a whole loses value, chances are your stocks or stock funds will decrease in value as well until the market returns to a period of growth. Market risk exposes you to potential loss of principal, since some companies don't survive market downturns. But the greater threat is the loss of principal that can result from selling when prices are low.

**2. Interest rate risk:**

 This is the possibility that interest rates will go up. If that happens, inflation increases, and the value of existing bonds and other fixed-income investments declines, since they're worth less to investors than newly issued bonds paying a higher rate. Rising interest rates also usually mean lower stock prices, since investors put more money into interest-paying investments because they can get a strong return with less risk.

**3. Purchasing power risk:**

Variations in the return are caused also by the loss of the purchasing power of currency. Inflation is the reason behind the loss of the purchasing power. Purchasing power risk is probable loss in the purchasing power of returns to be received.

 Inflation may be demand pull or cost push inflation. On demand pull inflation the demand for goods and services are in excess of their supply. At full employment level of factors of production, economy would not be able to supply more goods in short run and the demand for the products pushes the price upwards. The equilibrium between the demand and the supply is attained at the higher price.

The cost push inflation as the name itself indicates that the inflation or the raise in the price is caused by the increase in the cost. The increase in the cost of raw material, labour and equipment makes the cost of production high and ends in high price level. Thus the cost inflation has a spiraling effect on the price level.

**Unsystematic Risk**

This is the risk inherent in a particular asset class. The best way to combat this risk is by diversification. However, one must remember that the diversification must be in the class of asset and not the asset itself. An example of the above is evenly distributing your portfolio in bank deposits, Reserve Bank of India (RBI) bonds, real estate and equities. That way if a certain unsystematic risk affects let's say the real estate market (say the prices crashes), then the presence of other classes of assets in your portfolio saves you from a total washout. However, note that diversifying within the same asset class (buying different equity shares) is not strictly combating unsystematic risk.

Unsystematic risk can be classified into five types.

1. Business Risk 2. Financial Risk 3. Regulation Risk 4. Reinvestment Risk 5. International Risk

**1. Business Risk:**

It is that portion of unsystematic risk caused by operating environment of the business. Business risk arises from the inability of the firm to maintain its competitive edge and the growth of the stability of the earning variation that occurs in the operating environment is reflected in the operating income and expected dividends. It indicates business risk. Business risk is any risk that can lower a business’s net assets or net income that could, in turn, lower the return of any security based on it. Some business risks are sector risks that can affect every company in a particular sector, while some business risks affect only a particular company.

**2. Financial Risk:**

It refers to the variability of the income to the equity capital due to debt capital. Financial risk in a company is associated with the capital structure of the company. Capital structure of the company consists of equity funds and borrowed funds. The presence of debt and preference capital results in commitment of paying interest or prefixed rate of dividend.

This arises due to changes in the capital structure of the company. It is also known as leveraged risk and expressed in the terms of debt-equity ratio. Excess of debt over equity in the capital structure of a company indicates that the company is highly geared even if the per capital earnings of such company may be more. Because of highly dependence on borrowings exposes to the risk of winding up for its inability to honour its commitments towards lenders and creditors. So the investors should be aware of this risk and portfolio manager should also be very careful.

**3. Regulation Risk:**

Some investment can be relatively attractive to other investments because of certain regulations or tax laws that give them an advantage of some kind. Municipal bonds, for example pay interest that is exempt from local, state and federal taxation. As a result of that special tax exemption, municipal can price bonds to yield a lower interest rate since the net after-tax yield may still make them attractive to investors. The risk of a regulatory change that could adversely affect the stature of an investment is a real danger. In 1987, tax laws changes dramatically lessened the attractiveness of many existing limited partnership that relied upon special tax considerations as part of their total return. Prices for many limited partnership tumbled when investors were left with different securities, in effect, than what they originally bargained for. To make matter worse, there was not an extensive secondary market for these liquid securities and many investors found themselves unable to sell those securities at anything but "fire sale" prices if at all.

**4. Reinvestment Risk:**

It is important to understand that YTM is a promised yield, because investors can earn the indicated yield only if the bond is held to maturity and the coupons are reinvested at the calculated YTM (yield to maturity). Obviously, no trading can be done for a particular bond if the YTM is to earned. The investor simply buys and holds. Reinvestment risk the YTM calculation assumes that the investor reinvests all coupons received from a bond at a rate equal to computed YTM at the bond, thereby earning interest over interest over the life of the bond at the computed YTM rate in effect, this calculation assumes that the reinvestment rate is the yield to maturity. If the investor spends the coupons, or reinvest them at a rate different from the assumed reinvestment rate of 10 percent, the realized yield that will actually be earned at the termination of the investment in the bond will differ from the promised YTM. And, in fact-coupons almost always will be reinvested at rates higher or lower than the computed YTM, resulting in a realized yield that differs from the promised yield. This gives rise to reinvestment rate risk. This interest-on-interest concept significantly affects the potential dollar return. The exact impact is a function of coupon and time of maturity, with reinvestment becoming more important as either coupon or time to maturity, or both, rises specifically.

1. Holding everything else constant, the longer maturity of a bond, the greater the reinvestment risks. Holding everything else constant, the higher the coupon rate, the greater the dependence of the total dollar returns from the bond on the reinvestment of the coupon payments.

In fact, for long-term bonds the interest-on-interest component of the total realized yield may account for more than three-fourths of the bond's total dollar return.

5. **International Risk:**

International risk can include both country risk and exchange rate risk.

**i. Exchange Rate Risk:**

All investors who invest internationally in today's increasingly global investment arena face the prospect of uncertainty in the returns after they convert the foreign gain back to their own currency. Unlike the past when most U.S. investors ignored international investing alternatives, investors today must recognize and understand exchange rate risk, which can be defined as the variability in returns on securities caused by currency fluctuations. Exchange rate risk is sometimes called currency risk. Currency risk affects international mutual funds, global mutual funds, closed-end single country funds, American depository receipts, foreign stocks and foreign bonds. For example, a U.S. investor who buys a German stock denominated in marks must ultimately convert the returns from this stock back to dollars. If the exchange rate has moved against the investor, losses from these exchange rate movements can partially or totally negate the original return earned.

**ii. Country Risk:**

Country risk, also referred to as political risk, is an important risk for investors today. With more investors investing internationally, both directly and indirectly, the political, and therefore economic, stability and viability of a country's economy needs to be considered. The United States has the lowest country risk, and other countries can be judged on a relative basis using the United States as a benchmark. Example of countries that needed careful monitoring in the 1990s because of country risk included the former Soviet Union and Yugoslavia, China, Hong Kong and South Africa.

**iii. Liquidity risk**

Liquidity risk is the risk associated with particular secondary market in which a security trades. An investment that can be bought or sold quickly and without significant price concession is considered liquid. The more uncertainty about the time element and the price concession, the greater the liquidity risks. A treasury bill has little or no liquidity risk, whereas a small OTC stock may have substantial liquidity risk. \

**RISK AVOIDANCE:**

 Investment planning is almost impossible without a thorough understanding of risk. There is a risk/return trade off. That is, the greater risk is accepted, and the greater must be the potential return as reward for committing one’s fund to an uncertain outcome. Generally, as the level of risk rises, the rate of return should also rise, and vice versa. One way to handle risk is to avoid it. Risk avoidance occurs when one chooses to completely avoid the activity the risk is associated with. In the investment world, avoidance of some risk is deemed to be possible through the act of investing in “risk-free” investments. Stock market risk can be completely avoided by one choosing to have no exposure to it by not investing in equity securities.

1. Risk transfer:

 Another way to handle risk is to transfer the risk. Risk transfer in investing can be done where one may choose to purchase a municipal bond that is insured. One may purchase a put option on a stock, which allows the person to “put to” or sell to someone his or her stock at a set price, regardless of how much lower the stock may drop. There are many examples of risk transfer in the area of investing.

1. The Risk Averse Investor:

 Do investors dislike risk? In economics in general, and investments in particular, the standard assumption is that investors are rational. Rational investors prefer certainty to uncertainty. A risk-averse investor is one who will not assume risk simply for its own sake and will not incur any given level of risk unless there is an expectation of adequate compensation for having done so. In fact, investors cannot reasonably expect to earn larger returns without assuming larger risks. Investors deal with risk by choosing (implicitly or explicitly) the amount of risk they are willing to incur. Some investors choose to incur high level of risk with expectation of high levels of return. Other investors are unwilling to assume much risk, and they should not expect to earn large returns.

**MEANING OF RETURN:**

Return is one of the primary objectives of investment, which acts as a driving force for investment. Risk is inevitable and it is positively correlated with expected return. Return to an investor is of two types, current yield and capital appreciation. Current yield is the return, which is got in the form of individuals/interest whereas capital appreciation is the return, which we get after liquidation of shares.

Return = Current yield (dividend/interest) + Capital

Appreciation/ Capital Gain

**TYPES OF RETURN**

**1. HISTORICAL RETURNS**

Return calculated are on past data which has already occurred is called as historical return. Historical return is a post-mortem analysis of investment, which lacks insight for future. Historical return is less risky and more accurate compared to expected return since it does not involve prediction of interest or dividend or closing price. Historical return is also called as post return or actual return.

**Return = Cash payment + Closing price - Beginning price**

**Beginning Price**

**2. EXPECTED RETURN**

Return calculated based or future estimates and calculation is called as expected return.

**Expected Return = Expected Dividend + Capital Gain (expected)**

**Beginning price**

**RISK MEASUREMENT**

Understanding the nature of risk is not adequate unless the investor or analyst is capable of expressing it in some quantitative terms. Expressing the risk of a stock in quantitative terms makes it comparable with other stocks. Measurement cannot be assured of cent percent accuracy because risk is caused by numerous factors such as social, political, economic and managerial efficiency. Measurement provides and approximates qualification of risk.

**1. Volatility:**

Of all the ways to describe risk, the simplest and possibly most accurate is "the uncertainty of a future outcome". The anticipated for some future period is known as expected return. The actual return over some past period is known as the realized return. The simplest fact that dominates investing is that the realized return on an asset with any risk attached to it may be different from what was expected. Volatility may be described as the range of movement (or price fluctuation) from the expected level of return. The more a stock. For example, goes up and down in price, the more volatile that stock is. Because wide price swings create more uncertainty of an eventual outcome, increased volatility can be equated with increased risk. Being able to measure and determine the past volatility of a security is important in that it provides some insight into the riskness of that security as an investment.

**2. Standard Deviation:**

Investors and analyst should be at least familiar with study of probability distributions. Since the return, an investor will earn from investing is not known, it must be estimated.

In [statistics](http://en.wikipedia.org/wiki/Statistics) and [probability theory](http://en.wikipedia.org/wiki/Probability_theory), **standard deviation** (represented by the symbol sigma, [σ](http://en.wikipedia.org/wiki/Sigma)) shows how much variation or "[dispersion](http://en.wikipedia.org/wiki/Statistical_dispersion)" exists from the average ([mean](http://en.wikipedia.org/wiki/Mean), or expected value). A low standard deviation indicates that the data points tend to be very close to the [mean](http://en.wikipedia.org/wiki/Mean); high standard deviation indicates that the data points are spread out over a large range of values.

The standard deviation of a [random variable](http://en.wikipedia.org/wiki/Random_variable), [statistical population](http://en.wikipedia.org/wiki/Statistical_population), data set, or [probability distribution](http://en.wikipedia.org/wiki/Probability_distribution) is the [square root](http://en.wikipedia.org/wiki/Square_root) of its [variance](http://en.wikipedia.org/wiki/Variance). It is [algebraically](http://en.wikipedia.org/wiki/Algebra) simpler though practically less [robust](http://en.wikipedia.org/wiki/Robust_statistics) than the [average absolute deviation](http://en.wikipedia.org/wiki/Average_absolute_deviation). A useful property of standard deviation is that, unlike variance, it is expressed in the same units as the data.

**FORMULA**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**PROCEDURE TO CALCULATE STANDARD DEVIATION**

1. Calculate the mean of your data set.
2. Subtract the mean from each of the data values and list the differences.
3. Square each of the differences from the previous step and make a list of the squares.
	* In other words, multiply each number by itself.
	* Be careful with negatives. A [negative times a negative](http://math.about.com/od/prealgebra/ht/PostiveNeg.htm) makes a positive.
4. Add the squares from the previous step together.
5. Subtract one from the number of data values you started with.
6. Divide the sum from step four by the number from step five.
7. Take the [square root](http://math.about.com/od/squareroots/Square_Roots.htm) of the number from the previous step. This is the standard deviation.
	* You may need to use a basic calculator to find the square root.
	* Be sure to use significant figures when rounding your answer.

**Probability Distribution:**

Probability represents the likelihood of various outcomes and are typically expressed as a decimal (sometimes fractions arc used). The sum of the probabilities of all possible outcomes must be 1.0, because they must completely describe all the (perceived) likely occurrences. Probability distribution can be either discrete or continuous. With a discrete probability, a probability is assigned to each possible outcome. With a continuous probability distribution an infinite number of possible outcomes exist. The most familiar continuous distribution is the normal distribution depicted by the well-known bell shaped curve often used in statistics. It is a two-parameter distribution in that the mean and the variance fully describe it. To describe the single most likely outcomes from a particular probability distribution, it is necessary to calculate its expected value. The expected value is average of all possible return outcomes, where each outcome is weighted by its respective probability of occurrence. For investors, this can be described as the expected return. To calculate the total risk associated with the expected return, the variance or standard deviation is used. Since variance, volatility and risk can in this context be used synonymously, the larger the standard deviation, the more uncertain the outcome.

Calculating a standard deviation using probability distributions involves making subjective estimates of the probabilities and the likely returns. However, we cannot avoid such estimates because future returns are uncertain. The prices of securities are based on investors' expectations about the future. The relevant standard deviation in this situation is the ex-ante standard deviation and not the ex-post based on realized returns. Although standard deviations are based on realized returns are often used as proxies for ex-ante standard deviations, investors should be careful to remember that the past cannot always be extrapolated into the future without modifications. Ex-post standard deviations may be convenient, but they are subject to errors. One important point about the estimation of standard deviation is the distinction between individual securities and portfolios. Standard deviation is a measure of the total risk of an asset or a portfolio, including therefore both systematic and unsystematic risk. It captures the total variability in the assets or portfolio's return, whatever the sources of that variability. In summary, the standard deviation of return measures the total risk of one security or the total risk of a portfolio of securities.

The historical standard deviation can be calculated for individual securities or portfolios of securities using total returns for some specific period of time. This ex-post value is useful in evaluating the total risk for a particular historical period and in estimating the total risk that is expected to prevail over some future period.

3. Beta:

Beta is a measure of the systematic risk of a security that cannot be avoided through diversification. Beta is a relative measure of risk-the-risk of an individual stock relative to the market portfolio of all stocks. If the security's returns move more (less) than the market's return as (he latter changes, the security's returns have more (less) volatility (fluctuations in price) than those of the market. It is important to note that beta measures a security's volatility, or fluctuations in price, relative to a benchmark, the market portfolio of all stocks. Beta is useful for comparing the relative systematic risk of different stocks and, in practice, is used by investors to judge a stock's riskiness. Stocks can be ranked by their betas. Because the variance of the market is a constant across all securities for a particular period, ranking stocks by beta is the same as ranking them by their absolute systematic risk. Stocks with high betas are said to be high-risk securities.

**OPERATIONAL DEFINITION OF CONCEPTS**

**Portfolio:** In finance, a portfolio is a collection of investments held by an institution or a private individual. Holding a portfolio is part of an investment and risk-limiting strategy called diversification. By owning several assets, certain types of risk (in particular specific risk) can be reduced. The assets in the portfolio could include stocks, bonds, options, warrants, gold certificates, real estate, futures contracts, production facilities, or any other item that is expected to retain its value.

**Portfolio Management:**

Portfolio management involves deciding what assets to include in the portfolio, given the goals of the portfolio ow;ner and changing economic conditions. Selection involves deciding what assets to purchase, how many to purchase, when to purchase them, and what assets to divest.

These decisions always involve some sort of performance measurement, mostly expected return on the portfolio, and the risk associated with this return (i.e. the standard deviation of the return). Typically the expected return from portfolios comprised of different asset bundles is compared.

**Risk:**

The chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. Risk is usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment.

A fundamental idea in finance is the relationship between risk and return. The greater the amount of risk that an investor is willing to take on. the greater the potential return.

The reason for this is that investors need to he compensated for taking on additional risk.

Return:

The gain or loss of a security in a particular period. The return consists of the income and the capital gains relative on an investment. It is usually quoted as a percentage. The general rule is that the more risk you take, the greater the potential for higher return - and loss.

**Risk-Free Rate of Return:**

The theoretical rate of return of an investment with zero risk. The risk-free rate represents the interest an investor would expect from an absolutely risk-free investment over a specified period of time. The risk-free rate is the minimum return an investor expects for any investment because he or she will not accept additional risk unless the potential rate of return is greater than the risk-free rate.

These decisions always involve some sort of performance measurement, most y expected return on the portfolio, and the risk associated with this return (i.e. the standard deviation of the return). Typically the expected return from portfolios comprised of different asset bundles is compared.

**Risk:**

The chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. Risk is usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment.

A fundamental idea in finance is the relationship between risk and return. The greater the amount of risk that an investor is willing to take on. the greater the potential return.

The reason for this is that investors need to be compensated for taking on additional risk.

**Return:**

The gain or loss of a security in a particular period. The return consists of the income and the capital gains relative on an investment. It is usually quoted as a percentage. The general rule is that the more risk you take, the greater the potential for higher return - and loss.

Risk-Free Rate of Return:

The theoretical rate of return of an investment with zero risk. The risk-free rate represents the interest an investor would expect from an absolutely risk-free investment over a specified period of time. The risk-free rate is the minimum return an investor expects for any investment because he or she will not accept additional risk unless the potential rate of return is greater than the risk-free rate.

**Risk-Return Tradeoff**

The principle thai potential return rises with an increase in risk. Low levels of uncertainty (low risk) are associated with low potential returns, whereas high levels of uncertainty (high risk) are associated with high potential returns. According to the risk-return tradeoff, invested money can render higher profits only if it is subject to the possibility of being lost.



**DATA ANALYSIS**

**IDEA RETURNS FOR THE YEAR 2011**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Price at beginning** | **Price at ending** | **Returns** | **Avg. Ret** | **Deviation** | **(Deviation)2** |
| **January** | 454 | 485.15 | 0.068612335 | 0.054568 | 0.014044335 | 0.000197243 |
| **February** | 471.05 | 367.2 | -0.22046492 | 0.054568 | -0.27503292 | 0.075643106 |
| **March** | 370 | 426.7 | 0.153243243 | 0.054568 | 0.098675243 | 0.009736804 |
| **April** | 426.15 | 487 | 0.142790097 | 0.054568 | 0.088222097 | 0.007783138 |
| **May** | 490 | 650.95 | 0.328469388 | 0.054568 | 0.273901388 | 0.07502197 |
| **June** | 666 | 778.4 | 0.168768769 | 0.054568 | 0.114200769 | 0.013041816 |
| **July** | 780 | 700.6 | -0.10179487 | 0.054568 | -0.15636287 | 0.024449348 |
| **August** | 695 | 758.7 | 0.091654676 | 0.054568 | 0.037086676 | 0.001375422 |
| **September** | 764.95 | 784.45 | 0.025491862 | 0.054568 | -0.02907614 | 0.000845422 |
| **October** | 785.1 | 769.55 | -0.01980639 | 0.054568 | -0.07437439 | 0.00553155 |
| **November** | 745.35 | 741.05 | -0.0057691 | 0.054568 | -0.0603371 | 0.003640566 |
| **December** | 749.4 | 767.1 | 0.023618895 | 0.054568 | -0.0309491 | 0.000957847 |
|  **Total**  | **0.654813979** |  |  | **0.218224232** |
| **Standard Deviation** | **0.134853** |

**CALCULATIONS:**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**Calculation of risk and returns for Idea for the year 2011**

Avg. Return = $\frac{Total of returns}{No.of months}$ = $\frac{0.654813979}{12}$ = 0.054568

Sum of deviation2 = 0.218224232

Variance = $\frac{0.218224232}{12}$ = 0.01815

Standard deviation = $\sqrt{0.01815}$ = 0.134853

**BHARTI AIRTEL RETURNS FOR THE YEAR 2011**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month**  | **Price at beginning** | **Price at ending** | **Returns** | **Avg. Ret** | **Deviation** | **(Deviation)2** |
| **January** | 715 | 633.95 | -0.11335664 | -0.0495 | -0.06385664 | 0.004077671 |
| **February** | 629.7 | 638.5 | 0.013974909 | -0.0495 | 0.063474909 | 0.004029064 |
| **March** | 632.7 | 625.75 | -0.01098467 | -0.0495 | 0.038515331 | 0.001483431 |
| **April** | 626.4 | 752.75 | 0.201708174 | -0.0495 | 0.251208174 | 0.063105547 |
| **May** | 765.35 | 820.15 | 0.071601228 | -0.0495 | 0.121101228 | 0.014665507 |
| **June** | 870 | 802.15 | -0.07798851 | -0.0495 | -0.02848851 | 0.000811595 |
| **July** | 803.15 | 410.1 | -0.48938554 | -0.0495 | -0.43988554 | 0.193499292 |
| **August** | 418 | 424.6 | 0.015789474 | -0.0495 | 0.065289474 | 0.004262715 |
| **September** | 418.65 | 418.75 | 0.000238863 | -0.0495 | 0.049738863 | 0.002473954 |
| **October** | 426 | 292.85 | -0.31255869 | -0.0495 | -0.26305869 | 0.069199872 |
| **November** | 292 | 299.55 | 0.025856164 | -0.0495 | 0.075356164 | 0.005678552 |
| **December** | 304.9 | 329.75 | 0.081502132 | -0.0495 | 0.131002132 | 0.017161559 |
|  **Total**  | **-0.5936031** |  |  | **0.380448759** |
| **Standard Deviation** | **0.1780563** |

**CALCULATIONS:**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**Calculation of risk and returns for Airtel for the year 2011**

Avg. Return = $\frac{Total of returns}{No.of months}$ = $\frac{-0.5936031}{12}$ = -0.0495

Sum of deviation2 = 0.380448759

Variance = $\frac{0.380448759}{12}$ = 0.03170

Standard deviation = $\sqrt{0.03170}$ = 0.1780563

**VODAFONE RETURNS FOR THE YEAR 2011**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Price at beginning** | **Price at ending** | **Returns** | **Avg.Ret** | **Deviation** | **(Deviation)2** |
| **January** | 1372 | 1320.8 | -0.03731778 | 0.049991 | -0.08730878 | 0.007622824 |
| **February** | 1315 | 1403.85 | 0.06756654 | 0.049991 | 0.01757554 | 0.0003089 |
| **March** | 1385 | 1510.55 | 0.090649819 | 0.049991 | 0.040658819 | 0.00165314 |
| **April** | 1520 | 1655.7 | 0.089276316 | 0.049991 | 0.039285316 | 0.001543336 |
| **May** | 1703.65 | 2178.15 | 0.278519649 | 0.049991 | 0.228528649 | 0.052225343 |
| **June** | 2134.6 | 2204.05 | 0.03253537 | 0.049991 | -0.01745563 | 0.000304699 |
| **July** | 2229 | 2230.3 | 0.000583221 | 0.049991 | -0.04940778 | 0.002441129 |
| **August** | 2250 | 2309.5 | 0.026444444 | 0.049991 | -0.02354656 | 0.00055444 |
| **September** | 2319 | 2328.85 | 0.00424752 | 0.049991 | -0.04574348 | 0.002092466 |
| **October** | 2301 | 2217.8 | -0.03615819 | 0.049991 | -0.08614919 | 0.007421683 |
| **November** | 2209.95 | 2243.75 | 0.015294464 | 0.049991 | -0.03469654 | 0.00120385 |
| **December** | 2249.75 | 2403.3 | 0.068252028 | 0.049991 | 0.018261028 | 0.000333465 |
|  **Total**  | **0.599893395** |  |  | **0.077705274** |
| **Standard Deviation** | **0.08047** |

**CALCULATIONS:**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**Calculation of risk and returns for Vodafone for the year 2011**

Avg. Return = $\frac{Total of returns}{No.of months}$ = $\frac{0.599893395}{12}$ = 0.049991

Sum of deviation2 = 0.077705274

Variance = $\frac{0.077705274}{12}$ = 0.006475

Standard deviation = $\sqrt{0.006475}$ = 0.08047

**TATA DOCOMO RETURNS FOR THE YEAR 2011**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Price at beginning** | **Price at ending** | **Returns** | **Avg.Ret** | **Deviation** | **(Deviation)2** |
| **January** | 187 | 191.95 | 0.026470588 | 0.05324 | -0.02676941 | 0.000716601 |
| **February** | 192 | 191.5 | -0.00260417 | 0.05324 | -0.05584417 | 0.003118571 |
| **March** | 188 | 220.05 | 0.170478723 | 0.05324 | 0.117238723 | 0.013744918 |
| **April** | 218.5 | 240.75 | 0.101830664 | 0.05324 | 0.048590664 | 0.002361053 |
| **May** | 243.05 | 222.8 | -0.08331619 | 0.05324 | -0.13655619 | 0.018647593 |
| **June** | 225 | 253.35 | 0.126 | 0.05324 | 0.07276 | 0.005294018 |
| **July** | 253.35 | 275.05 | 0.08565226 | 0.05324 | 0.03241226 | 0.001050555 |
| **August** | 277 | 270.85 | -0.02220217 | 0.05324 | -0.07544217 | 0.00569152 |
| **September** | 271 | 279.9 | 0.032841328 | 0.05324 | -0.02039867 | 0.000416106 |
| **October** | 283 | 287.1 | 0.014487633 | 0.05324 | -0.03875237 | 0.001501746 |
| **November** | 284.2 | 320 | 0.125967628 | 0.05324 | 0.072727628 | 0.005289308 |
| **December** | 315.1 | 335.05 | 0.063313234 | 0.05324 | 0.010073234 | 0.00010147 |
|  **Total**  | **0.638919535** |  |  | **0.057933459** |
| **Standard Deviation** | **0.0694823** |

**CALCULATIONS:**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**Calculation of risk and returns for Tata Docomo for the year 2011**

Avg. Return = $\frac{Total of returns}{No.of months}$ = $\frac{0.638919535}{12}$ = 0.05324

Sum of deviation2 = 0.057933459

Variance = $\frac{0.057933459}{12}$ = 0.004828

Standard deviation = $\sqrt{0.004828}$ = 0.0694823

**RELIANCE RETURNS FOR THE YEAR 2011**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Price at beginning** | **Price at ending** | **Returns** | **Avg.Ret** | **Deviation** | **(Deviation)2** |
| **January** | 116.5 | 116.1 | -0.00343348 | 0.1141 | -0.11753348 | 0.013814118 |
| **February** | 111.15 | 100.2 | -0.09851552 | 0.1141 | -0.21261552 | 0.045205359 |
| **March** | 98 | 102.05 | 0.041326531 | 0.1141 | -0.07277347 | 0.005295978 |
| **April** | 100.55 | 129.85 | 0.291397315 | 0.1141 | 0.177297315 | 0.031434338 |
| **May** | 130.55 | 166.9 | 0.27843738 | 0.1141 | 0.16433738 | 0.027006775 |
| **June** | 172 | 185.95 | 0.081104651 | 0.1141 | -0.03299535 | 0.001088693 |
| **July** | 186 | 241 | 0.295698925 | 0.1141 | 0.181598925 | 0.032978169 |
| **August** | 242 | 300 | 0.239669421 | 0.1141 | 0.125569421 | 0.01576768 |
| **September** | 299 | 340.8 | 0.139799331 | 0.1141 | 0.025699331 | 0.000660456 |
| **October** | 342 | 306.25 | -0.10453216 | 0.1141 | -0.21863216 | 0.047800023 |
| **November** | 302.5 | 337.1 | 0.114380165 | 0.1141 | 0.000280165 | 7.84926E-08 |
| **December** | 339.95 | 371.8 | 0.093690249 | 0.1141 | -0.02040975 | 0.000416558 |
|  **Total**  | **1.369022808** |  |  | **0.221468225** |
| **Standard Deviation** | **0.1358517** |
|  |  |  |  |  |  |  |

**CALCULATIONS:**

**Rate of Return =** $\frac{share price in the closing - share price at the opening}{Share price in the opening}$

**Deviation =** Return – Avg. Return

**Variance (σ2) =** $\frac{\sum\_{}^{}Deviation^{2}}{12}$

**Standard deviation σ =** $\sqrt{σ^{2}}$

**Calculation of risk and returns for Reliance for the year 2011**

Avg. Return = $\frac{Total of returns}{No.of months}$ = $\frac{1.369022808}{12}$ = 0.114085

Sum of deviation2 = 0.221468225

Variance = $\frac{0.221468225}{12}$ = 0.018456

Standard deviation = $\sqrt{0.018456}$ = 0.1358517

**SELECTED COMPANIES AVG. RISK & AVG. RETURN**

**for the year 2007**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the company** | **Avg. Returns** | **Avg. Risk** |
| 1 | IDEA | 0.046 | 0.077 |
| 2 | BHARATI AIRTEL | 0.050 | 0.108 |
| 3 | VODAFONE | 0.024 | 0.114 |
| 4 | TATA DOCOMO | -0.037 | 0.264 |
| 5 | RELIANCE | 0.003 | 0.069 |

**GRAPH**

**INTERPRETATION:**

From the above graph, it is clear that Bharati Airtel has high returns when compared to other companies i.e., 0.05. Tata Docomo has negative returns i.e., -0.037 and it has high risk i.e., 0.264 when compared to other companies. Reliance has less risk i.e., 0.069 when compared to other companies.

**SELECTED COMPANIES avg. RISK & avg. RETURNs**

**for the year 2008**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the company** | **Avg. Returns** | **Avg. Risk** |
| 1 | IDEA | 0.055 | 0.089 |
| 2 | BHARATI AIRTEL | 0.006 | 0.093 |
| 3 | VODAFONE | 0.049 | 0.113 |
| 4 | TATA DOCOMO | 0.049 | 0.128 |
| 5 | RELIANCE | 0.037 | 0.096 |

**GRAPH**

**interpretation:**

By analyzing the above graph, we can says that Idea has high returns when compared to other companies i.e., 0.055. Bharti Airtel has low returns i.e., 0.006. Tata Docomo has high risk i.e., 0.128 when compared to other companies. Idea has less risk i.e., 0.089 when compared to other companies.

**SELECTED COMPANIES avg. RISK & avg. RETURN**

 **for the year 2009**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the company** | **Avg. Returns** | **Avg. Risk** |
| 1 | IDEA | 0.057 | 0.150 |
| 2 | BHARATI AIRTEL | 0.004 | 0.054 |
| 3 | VODAFONE | 0.035 | 0.108 |
| 4 | TATA DOCOMO | -0.010 | 0.208 |
| 5 | RELIANCE | 0.018 | 0.089 |

**GRAPH**

**interpretation:**

Above graph depicts that Idea has high returns when compared to other companies i.e., 0.057. Tata Docomo has negative returns i.e., -0.010. Tata Docomo has high risk i.e., 0.208 when compared to other companies. Bharti Airtel has less risk i.e., 0.054 when compared to other companies.

**SELECTED COMPANIES avg. RISK & avg. RETURN**

 **for the year 2010**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the company** | **Avg. Returns** | **Avg. Risk** |
| 1 | IDEA | -0.028 | 0.239 |
| 2 | BHARATI AIRTEL | 0.050 | 0.044 |
| 3 | VODAFONE | 0.043 | 0.191 |
| 4 | TATA DOCOMO | -0.014 | 0.072 |
| 5 | RELIANCE | -0.032 | 0.171 |

**GRAPH**

**INTERPRETATION:**

From the above table Bharti Airtel has high returns when compared to other companies i.e., 0.05. Idea, Tata Docomo and Reliance have negative returns i.e., -0.028, -0.014 and -0.032 respectively. Idea has high risk i.e., -0.208 when compared to other companies. Bharti Airtel has less risk i.e., 0.044 when compared to other companies.

**SELECTED COMPANIES avg. RISK & avg. RETURN**

**for the year 2011**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Name of the company** | **Avg. Returns** | **Avg. Risk** |
| 1 | IDEA | 0.055 | 0.13485 |
| 2 | BHARATI AIRTEL | -0.050 | 0.17806 |
| 3 | VODAFONE | 0.050 | 0.08047 |
| 4 | TATA DOCOMO | 0.053 | 0.06948 |
| 5 | RELIANCE | 0.114 | 0.13585 |

**GRAPH**

**INTERPRETATION:**

From the above graph, it can be inferred that Reliance has high returns when compared to other companies i.e., 0.114. Bharti Airtel has negative returns i.e., -0.05. Bharti Airtel has high risk i.e., 0.17806 when compared to other companies. Tata Docomo has less risk i.e., 0.06948 when compared to other companies.

**NSE INDEX**

|  |  |  |
| --- | --- | --- |
| **Year** | **Avg. Returns** | **Avg. Risk** |
| 2007 | 0.086 | 0.632 |
| 2008 | 0.196 | 0.519 |
| 2009 | 0.104 | 0.609 |
| 2010 | 0.019 | 0.717 |
| 2011 | 0.222 | 0.59871 |

**INTERPRETATION:**

By analyzing the above graph, NSE’s average risk and return are in fluctuating trend during the study period. The risk in the year 2006-07 is 0.632. After many fluctuations, the risk decreased to 0.59871. The return in the year 2006-07 is 0.086. It increased to 0.222 in the year 2010-11.

**FINDINGS**

After the data is analyzed the following facts have been observed.

**2007**: From risk-return analysis of 2007, it is found that risk of all companies is higher than their returns, but in comparison, returns of Idea and BHARTI AIRTEL have higher, where as Tata Docomo has negative returns.

**2008**: From the analysis, the risk of all companies is higher than their returns. In comparison, returns of Idea, Vodafone and Tata Docomo are higher. Tata Docomo performed well it got positive and higher returns when compared to previous negative returns.

**2009**: From the analysis, Idea is performing better than other companies. In this year, again Tata Docomo has negative returns and higher risks when compared to other companies, this is due to BANKRUPTCY.

**2010**: From the analysis, Bharti Airtel is performing better followed by Vodafone. In this year Telecom industry is not performing well because all the three industry giants like Idea, Tata Docomo and Reliance earned negative returns and higher risks.

**2011**: From the analysis, total telecom industry having started recovering, so their stocks were going along with their risk. This year was good as all the companies are doing well. This year Idea, Docomo and Reliance got positive and higher returns when compared to other market players. Reliance got highest returns for the year 2011.

**CONCLUSIONS**

The present project work has been undertaken to study the risk-return relationship of individual securities as well as nifty index to observe whether the stock prices have any relationship with risk and return. As this project work is done by studying five individual stocks of nifty and nifty index, there is not much scope for the analysis, interpretation and conclusion.

All the companies having fluctuating performances. But, Idea is performing better than all other telecommunication companies. Its average returns of all the five years is more than the other companies.

As the economy is fluctuations very badly, the stock prices are affected by these fluctuations and the market has become so volatile. In this situation investors should be very careful. The firm which is dealing the trading of share market should be caution enough so that investors may not suffer losses.

**SUGGESTIONS**

After observing the facts found out after the analysis and interpretations, the following suggestions are made to the investors.

1. When there is more risk, the return will also be high but this does not hold in all situations especially in the case of economic crisis.
2. The sentiments and emotions sometimes play a vital role in causing fluctuations in the stock markets. Therefore it is not advisable to invest at the time of crisis.
3. When markets are sliding down steeply, the investors will not be protected against the risk of investment. Therefore, it is not advisable to invest when the markets are very volatile.
4. Always it is felt that market position never stays for a long time. In this opinion Bullish and Bearish markets end after some time.
5. Therefore one can invest the time of Bearish and soon after they reach bullish trend they can sell them off.

**Bibliography**

1. Investing management By Puthi Sing.
2. Security analysis and portfolio management By Punithvathy Pandiyam

**Websites:**

1. www.nseindia.com
2. www.investopedia.com
3. www.glossary.reuters.com
4. www.capitalmarket.com
5. www.answers.com