CHAPTER III

RISK AND INFORMATION: SOME THEORETICAL ISSUES

The future is regarded as being not only largely unknown but also largely undecided. The future is thought to be open whereas the past is closed. When we look backwards, the stream of history seems to flow along a single channel but when we look forward, there seems to be any number of channels it can take.

The concept of risk started from the very beginning of the Universe because it is related to chance. "Risk is the possible loss of income or capital or unavailability or variability of expected return". Risk can thus be defined as a situation where the possible consequences of the decision are not known.

A major concern of contemporary finance is decision-making under conditions of risk. Frequently the decision problem is viewed as choosing among possible risk-return combinations and formulated as either maximising return for a given level of risk or minimising risk for a given level of return.

Though the outcome expected of an investment in securities is subjective to each investor, the general characteristics of the outcomes expected are ascertainable. In general, the investors expect to be "better off" by making the investment they in fact make than by not investing or by investing in any combination of known alternative investments. They expect that the future
flow of satisfactions resulting from a decision to invest will, when appropriately discounted to the present, exceed the satisfaction presently obtainable.²

Although all investors are interested in the safety of the purchasing power of their invested principal, investors individually may place different emphasis on other criteria like the size and regularity of the income to be received and the negotiability or marketability of their investments. For example, some investors are compelled by their circumstances to place emphasis on the regularity of future income. Others may seek primarily to safeguard the principal. And still others can afford to seek a large if fluctuating income, even at a greater risk to the safety to their principal.³ Some investors are prepared to invest for long periods, whereas some others wish to invest only for short periods, so that they have freedom to liquidate their investments promptly and without loss. The variety of securities with fixed income and variable income, short-term and long-term traded in the market enables investors to match the outcomes expected of particular security investments with their specific needs and preferences.

Each investor may ideally be supposed to take into account the different features of the securities in respect of which he may entertain the variety of outcomes best suited to his own individual circumstances and interest⁴. "Depending on his own status, needs and tastes, the thing purchased as an

³ Ibid.
investment may be marketable securities, life insurance, savings deposits, including land or blocks or producers goods or other commodities; may be newly created or long in existence; and may constitute either a net expansion of his investment assets or merely a replacement of other assets previously held. From the individual's point of view, all are 'investments'.

If his choice of investments is not oriented within the framework of his specific investment needs and ends, which is securing the maximisation of wealth, his capacity of alternative investments in terms of their potentials for achieving all non specific economic goals is needlessly scarified. There remains therefore, the necessity for a deliberate assessment for producing money for interest payments, dividends, and / or gains on the resale of securities.

The events causing uncertain investment returns are so numerous and varied that identifying each of the them presents a challenge to even the most experienced professional investor. For simplicity sake, it is useful to classify risks into broad groups according to their effects upon investments. For example, the risk that price inflation will erase away an investment's real return is actually an aggregate of an almost unlimited number of possible occurrences, including droughts, labour shortages, large increases in the money supply, declining exchange value of the currency in relation to foreign currencies, and so forth. And awareness about each possible risk cannot be taken for granted. But the person who invites investment is expected to bring to the notice of the prospective investor many such possibilities by way of information. Generalizing about the results of these events makes it possible
to develop a manageable set of alternatives that enable an investor to formulate a plan of action to control risk.

Studies show that for most Americans, a possible loss counts much more heavily than a potential gain. This research has helped shift attention toward an economic middle ground between the purely logical and the purely random - the realm of calculated risk taking.\(^5\)

Taking risk always implies taking responsibilities. Responsibility is a general partner in the joint venture between risk and opportunity. When a risk falters, risk takers move to fix it, analyze why and start scouting the next step. Risk avoiders tend to prefer freedom from choice and responsibility. Evidence of that comes from the realm of investment risk taking. Meir Statman suggests reasons why most individuals avoid risky investments: "When presented with freedom of choice, investors often behave in ways that reveal that what they really want is freedom from choice". Most investors display an aversion to responsibility... which is to say an aversion to risk.

Investment risk taking is particularly unruly because of the vast and growing amounts of information on investment markets. These data sky scrapers - available at the touch of a button on the computer - give the illusion that all is not chaos after all : That perhaps uncertainty's veil can be temporarily lifted by simply grabbing onto a few more facts or historical performance charts.

Information is sometimes a slippery, sometimes a deceptive commodity. With risk, information can be aggravating - the more you learn, the less you seem to know.

In investments, as in the other realms of risk taking, the risk is largely in the eyes of the risk taker. This can have both positive and negative ramifications. Boesky, who had been called "one of Wall Street’s best known risk takes" says there are no simple formulae. Good judgement plays a greater role than technical common sense and subjective analysis outweighs risk calculation. He may have had the theory right, but either didn’t believe it or chose to ignore it using illegal means to leapfrog the system and its inherent risks. Individuals must or can choose among alternatives that differ, among other things in the degree of risk to which the individual will be subject.

There is no standard measure of a willingness to take risks. But psychologists who have studied the risk taking mind conclude that effective risk-takers are best able to clearly establish in their own minds the link between risk and opportunity, between risk and achievement. They recognize both the potential gains and the potential losses, but are more willing to overlook the downside. They are the optimists who see the glass as half full. They focus on rewards over dangers and make their choices and take their actions based on where they see that opportunity. People who do not see the same opportunity do not take the same action. You can’t take a risk if you can’t see it.

Risk takers tend to be focused on the possibility of opportunity and gain as they evaluate and pursue their risks. A more risk averse person, on the other hand, is always concerned with avoiding losses. Risk takers are drawn to endeavours where they perceive the odds to be challenging but not overwhelming, where their wits and business skills can help them win that opportunity for themselves. Some people are over conditioned to avoid all risks. Risk in the business environment can be a positive sign indicating "opportunity ahead" and meant to spur action rather than quell it. By forgoing risk, people forgo the opportunity as well.

As psychologists have pointed out, motivations to take risks and overcome that process are complex, and risk takers often show a strong ability to deal with complex situations. They consistently excel in tests of abstract reasoning. Uncertain situations force risk takers to proceed without allocates - without having the lines of realism fully drawn. Risk takers must continuously employ a brand of abstract reasoning to span the inevitable gaps between what is known and what is sought out. Still other psychological research finds that risk takers have a high level, of what psychologists call, "need satisfaction". They have high aspirations and expectations that they are willing to take risks to satisfy. They would derive more satisfaction out of a smaller payoff obtained through risk taking than they would from a larger gain if it was obtained conservatively.

One of the major economic decisions of an individual in which risk plays an important role is investment. Alternative possible uses at his disposal can be classified into three broad groups according to the degree of risk involved:
a. those involving little or no risk like Government securities;
b. those involving a moderate degree of risk; and
c. those involving much risk with some possibility of extremely large gains or some of extremely large losses. eg. highly speculative stocks.

CATEGORIES OF RISK

The cases of uncertain investment returns can be grouped into two broad categories: events that affect virtually all investment assets and events that produce effects more applicable to specific investments or categories of investments. For example, inflation tends to influence the returns on virtually all investments. Even common stock, an asset frequently treated as an inflation hedge, provides returns that are affected by changes in the prices of goods and services. On the other hand, reliance on borrowed money is a function of an organization's management policy. Thus, the possible inability to meet financial obligations is a risk applicable to specific assets.

Investment media are subject to such hazards as systematic risk such as a market risk, interest rate risk and purchasing power risk, and to unsystematic risks such as business risk and financial risk.

Systematic risk is the portion of an asset's return variability that can be attributed to a common factor. It is also called undiversifiable risk or market risk. Systematic risk is the minimum level of risk that can be obtained for a portfolio by means of diversification across a large number of randomly chosen assets.
Certain kinds of events tend to affect all sectors of business, government, and virtually any other entity, and produce unavoidable effects for an investor. Universally applicable uncertainties fall under a common classification known as systematic risk. These risks can be influenced by an investor but cannot be completely eliminated. Two important systematic risks are the uncertain returns caused by uncertain purchasing power and uncertain interest rates. Uncertainties originating from both of these risks affect all investments to differing degrees.

The systematic portion of risk results from overall market influences like economic, political and sociological changes. The effect of these factors is to put the prices of nearly all individual common stocks to move together in the same direction. On the other hand, the unsystematic risks’ portion results from company and industry influences. Firms with high systematic risk tend to be those whose sales, profit and stock prices follow the level of economic activity and the level most firms that deal in basic industrial goods and raw materials. The portion of an asset’s return variability that can be diversified away is referred to as unsystematic risk. It is also called diversifiable risk or residual risk or company-specific risk. This is the risk that is unique to a company such as a (labour) strike or the outcome of unfavourable litigation. For example, the case of product tampering involving Tylenol capsules (manufactured by Johnson & Johnson Inc) in October 1982, or the chemical accident at the Union Carbide plant, Bhopal in December 1984. Both of these unexpected tragedies had negative impact on the stock prices of the two
companies involved.\textsuperscript{7} Factors like labour strike, consumer preferences, competition, management policies etc also cause unsystematic variability of return for a company's securities.

Quantifying Systematic Risk

Quantification of systematic risk can be accomplished by dividing security return into two parts: one perfectly correlated with and proportionate to the market return, and a second independent from the market. The first component of return is referred to as systematic return and the second as unsystematic or diversifiable return. Thus,

\[
\text{Security return} = \text{Systematic return} + \text{Unsystematic return}.
\]

As the systematic return is proportional to the market return, it can be expressed as the symbol beta ($\beta$) times the market return, $R_m$. This proportionality factor beta is a market sensitivity index, indicating how sensitive the security return is to changes in the market level.

The unsystematic return, which is independent of market returns, is represented by epsilon ($\varepsilon$).

Thus, the security return $R$, may be expressed as

\[
R = \beta R_m + \varepsilon
\]

Given measures of individual-security systematic risk, it is possible to compute the systematic risk of the portfolio. It is equal to the beta factor for the portfolio, $\beta_p$ times the risk of the market index, Std ($R_m$):

$$\text{Portfolio systematic risk} = \beta_p \text{ std } (R_m)$$

The systematic risk of a portfolio is thus, the market value-weighted average of the systematic risk of the individual securities. The $\beta$ for a portfolio consisting of all securities is 1.

The unsystematic risk of the portfolio is also a function of the unsystematic security risks, but with increasing diversification, this risk approaches zero.

This implies that the realized rates of return over long periods of time are related to the systematic as opposed to the total risk of securities. As the unsystematic risk is relatively easily eliminated, the market is not expected to offer investors a "risk premium" for bearing such risk.

The nature of the various type of risks are briefly described below:

i. Market Risk

The market risk is the loss of capital owing to changes in common stock prices.

It is the uncertainty of return caused by market cycles, sudden market movements, and changes in public preferences among investment alternatives. Although market risk is unique in that the uncertain return applies to a
particular investment or class of investments, it is a risk caused by factors that have little to do with the fundamentals of the investment.

Market risk is usually associated with the changes in investors' expectations about the prospects of a company. It is more a matter of investor psychology than a financial analysis. It comes and it goes, and nobody is able to consistently predict what it will affect, when it will start, and how long it will last. The only certain thing is that the cycles will start and will run their course.

An investor who acquires an asset as a long-term investment holding with only the remotest possibility that the asset will have to be sold on short notice, has much less to worry about with respect to market risk. Investors who purchase investments to meet long-term goals can afford to ride out market cycles in whatever asset they select.

Among long-term investments, those that provide owners with large cash flows tend to have a reduced amount of market risk. Short of total disaster, investments such as government and corporate bonds, preferred stocks, and income producing property continue to provide cash flows for period after period, regardless of what happens with respect to market conditions. As a large portion of the return from these investments is in current cash distributions, there will generally be considerably less valuation change from market fluctuations compared to investments expected to provide the majority

Ibid. p.17
of their return from price appreciation. Through diversification, market risk can be reduced but cannot be eliminated.

Amling has suggested two ways by which investors can protect themselves from the market risk.\(^9\) firstly, by observing, understanding and analysing the share price of the company whose share is to be purchased; secondly, determining the right time of sale and purchase of the security, selling the share when market or price index is at its peak, and buying when the market is at the tough stage.

\(\text{INTEREST RATE RISK}\)

Interest rate risk refers to "the fluctuations in market price of fixed-income securities owing to change in levels of interest rates"\(^{10}\).

Interest rate risk refers to the uncertain returns caused by uncertain market rates of interest. The risk to the investor is that an investment's return will be adversely affected by changes in interest rates during the period the investment is held. The more an investment's rate of return is influenced by changes in interest rates, the greater the uncertainty surrounding the return and the larger the interest-rate risk from owning that investment.

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Moderating Interest Rate Risk

Interest rate uncertainties produce two very different risks for investors, the risk of uncertain returns because of uncertain cash flows and the risk of uncertain returns because of uncertain market values.

The risk of uncertain income flows that are the result of interest rate changes can best be avoided by selecting investments that guarantee fixed cash payments over long time periods. If the payments to be received by an investor are not a function of interest rates (other than at the time that the investment is acquired) then interest rate changes, regardless of their direction or size, will have no effect on income flows provided by the investment.

The risk from potential changes in investment values caused by fluctuations in interest rates are best avoided by selecting long-term investments with payments altered to reflect market rates of interest or by restricting investment acquisitions to assets with short-term maturities. Of the two, short-term investments are in plentiful supply and a more appropriate alternative for most investors.

Investments with intermediate and long maturities can protect investors from value changes as a result of interest rate changes if payments from the asset respond directly to interest rate movements. For example, an asset that provides increased payments when interest rates rise and decreases payments when interest rates fall will protect an investor against changes in the market value of the investment when interest rates change. Essentially, this type of investment provides an income stream nearly identical to the flow of current
income accruing to the owners of the short-term investments. Both types of investments provide fluctuating income keyed to the current level of interest rates.

On the other hand, some firms can actually experience an increase in profits because of higher market rates of interest. The increased earnings and dividends may partially or completely offset any tendency for higher interest rates to decrease the firm's market value (or the market value of its common stock). Companies that have accumulated large cash positions may be able to increase their own profits when interest rates rise. These firms will be able to reinvest their short-term funds at higher interest rates and produce a larger current income for owners. Likewise, companies involved in lending money may discover that they can increase their cost of funds. Rising interest rates would produce higher profits for these firms.

PURCHASING POWER RISK

The purchasing power risk is "the probability ... a deterioration in the value of the security medium relative to an index of consumer purchasing power."\(^{11}\) Purchasing power risk refers to the impact of inflation or deflation on an investment. Generally, purchasing power risk is identified with inflation which can be cost push or demand pull inflation.

The purchasing power risk associated with securities is dependent upon the probable future direction of movement in consumer prices. During the periods of inflation, many common stocks, investment company shares etc.,

offer hedge against inflation. Other securities like saving accounts with banks and savings and loan associations, conversely, offer some hedge against deflation.

Investors who fear the effects of inflation usually invest a part of their investing funds in variable return investments with the hope that they will minimise the risk in value over time.

The risk to an investor is that periodic income from sources such as dividends, interest, and rent payments, along with the funds eventually received when the investment is sold will be depleted in real value by increased prices for goods and services.

Some companies are able to take advantage of an inflationary period to pass along price increases to customers. The increased revenues that result are likely to produce additional profits and dividends to stockholders. This ability of companies to increase profits during inflation is not universal, however, so that common stocks and direct ownership of businesses are not always good inflation hedges.

As a rule, long-term, fixed-payment investments have substantial amounts of purchasing-power risk. These investments have an expected level of inflation built into the original price.
BUSINESS RISK

Business risk refers to the inability of a company to maintain its competitive position and the growth or stability of its earnings.\textsuperscript{12} It is a function of the operating conditions faced by a firm and the variability in these operating conditions injected into operating income and expected dividends. Further, it is the degree of variation from the expected trend which would measure business risk\textsuperscript{13}.

Business risk can be divided into two broad categories: internal and external risk. The internal risk is largely associated with the operational efficiency of a firm. It is of different degrees in each firm and the degree to which each firm achieves its goals and attainment level is reflected in its operating efficiency.

External risk, on the other hand, is the result of operating conditions imposed upon the firm by circumstances beyond its control. Some of the external factors like business cycle, demographic changes, political policies, monetary and fiscal policies of the Government and the general economic environment of the economy influence the costs and revenues of the firm.

Business risk refers to uncertain returns to an investment's because of the uncertain business environment in which the organization operates. Its poor performance may be the result of unwise management decisions or


inefficiencies in its functioning. It may also be caused by events external to the entity, such as a change in the value of the rupee relative to other currencies, which makes it difficult for a firm to compete. And there is always the possibility that a new competitor will emerge and knock the stocks off a company that has been operating in a sheltered environment.

Business risk tends to be reduced through the ownership of short-term investments. The sooner money is to be returned, the less time there is for conditions to change sufficiently to affect an investor's rate of return. For example, a business firm with a single major product is unlikely to experience a steep decline in the demand for that product in a short period of time.

For a business, the reduction in business risk over short periods may be more beneficial to the firm's creditors than to its owners. Even the public's impression that the demand for a product is declining can have a major impact on the market value of a firm's ownership. This altered impression is of some consequence to creditors but not nearly to the same degree. A reduction in the market value of a business may occur well before the decline in demand makes itself felt in the form of reduced revenues. The tremendous importance of investors' perceptions when they place a market value on the ownership of a business and the sudden changes in these perceptions are major factors in making ownership so risky.
Financial risk refers to "the uncertainty of the income stream flowing to the capital suppliers, both debt and equity". Financial risk in a company is associated with the method through which it plans its capital structure. If the capital structure of a company tends to make earnings unstable, the company may fail financially. Debt financing provides a low cost source of funds to a company and, at the same time, provides financial leverage for the common stockholders. As long as the earnings of the company are higher than the cost of borrowed funds the earnings per share of common stock are increased. But large amount of debt financing also increases the variability of the returns of the common stockholders and thus increase their risk. Financial risk refers to an investor's uncertain rate of return because an organization may be unable to meet its financial obligations. These obligations generally consists of interest and principal payments on borrowed funds. Investments in organizations that are heavily in debt tend to subject their owners to greater uncertainty of return because of financial risk.

Unlike other forms of risk that can result from numerous sources, financial risk is caused by a single factor incurring fixed financial obligations. These obligations may result from a desire to acquire more assets or from a need to obtain funds to meet current spending requirements. These obligations generally result from debt, although leases can be equally burdensome and produce financial risk. The more money an organization owes relative to its size and the higher the rate of interest that must be paid on the loans, the

more likely that interest and principal obligations will become a problem for the organization and the more likely that the market value of investments in the organization will fluctuate.

Short-term borrowing is more risky than long-term debt of the same amount. There are two reasons for the greater risk. First, the interest rate on short-term debt is subject to change either during the term the loan is outstanding or as and when the loan is renewed. An organization using short-term borrowing on a medium- or long-term basis assumes the very real risk that the interest rate on the loan will rise, thereby increasing the burden of the debt. Second, if the organization needs to refinance the loan, there is no way of knowing or certain if either the existing lender or any other lender will be willing to provide the needed funds. If the borrowing organization’s fortunes deteriorate significantly between the time the original loan is made and the time the refinancing is required, the possibility exists that no lender will be located.

The surest way for an investor to reduce his or her exposure to financial risk is to invest in sure things or something akin to them. The less money an organization owes relative to the size of its revenues and assets, the lower the degree of financial risk to which it subjects investors. If a company has no debt and no long-term lease then investors in the company don’t have to concern themselves about fixed financial obligations.
LIQUIDITY RISK

Liquidity risk refers to an investor's uncertain return because of the potential difficulty in liquidating the asset. The more difficult an asset is to sell without having to offer a large price concession, the greater the degree of liquidity risk in owning the asset.

Liquidity includes both the ability to turn an asset into cash and to do so without being required to significantly reduce the price below its current level. Virtually anything can be sold at some price. However, if the price obtainable is very low compared to what should be received under normal circumstances, owning the asset entails considerable risk.

Liquidity risk is of particular concern when there is some reason to believe an asset may be sold on short notice. Investments with an active secondary market have the least liquidity risk.

The liquidity of an asset tends to decline as the cost of transferring ownership increases. The price bid for an asset is partially determined by costs that the buyer must incur to take possession. For example, if significant transfer fees are imposed on the buyer by some government agency or by the institution that effects the transfer the potential users can be expected to reduce the price that is offered for the asset.

Another factor influencing the liquidity of an asset is the relative size of an investor's holdings. An asset generally considered to be quite liquid may present difficulties to an investor wishing to dispose of an unusually large
position in a short time. (e.g., of 1,000 shares or 100,000 as the case may be) An active secondary market may be able to support moderate transactions on a continuous basis but be unable to support very large transactions without having the price significantly altered.

REINVESTMENT RISK

Reinvestment risk refers to an investor's uncertainty concerning the return that will be earned on the reinvestment of funds from an existing investment. These funds may result from periodic cash payments made to the investor, or they may result from a return of an investment's principal. Unless the returns from an investment are used for consumption, cash flows must be reinvested at whatever rate of return exists at the time the reinvestment is made. Because there is no way of knowing in advance what the reinvestment rate will be, considerable reinvestment risk is involved in owning most investments.

Reinvestment risk is a special concern for someone who invests to generate a stream of periodic income payments.

Even an investor who invests to achieve long-term goals must be concerned with reinvestment risk. For example, a risk-averse investor may attempt to meet his financial needs by limiting investments to low-risk, short-term assets. Cash flows are then reinvested as principal and is returned in succeeding periods of short duration. Here the reinvestment risk stems from the possibility that rates may fall so that the investor is unable to earn a high enough return to achieve the goal.
Reinvestment risk from security ownership can be reduced by acquiring securities that offer the largest proportion of expected returns in the form of price increases as opposed to current income.

There are certain other types of risks, generally referred to as social political and regulatory risks.

The Interaction of Investment Risk

It is challenging enough that investors must concern themselves with identifying all of the individual risks applicable to the tremendous variety of investments available for purchase. A second and equally important aspect of risk analysis is how risks frequently interact with one another and how the interaction affects rates of return.

Some types of risk tend to operate independently of other risks, so that analyzing the effect of the uncertainties on a investment's rate of return is a relatively straightforward matter. For example, liquidity risk is an uncertainty unique even to different investments of the same general type.

Other risks act in concert to affect the rates of return on certain investments. The collective force of these risks acting together frequently produces a different result than would be expected on the basis of a single risk. Suppose two risks tend to simultaneously affect the rate of return on a particular investment. If the risks influence the investment's return in a similar manner (i.e., in either a positive manner or a negative manner) then the two risks reinforce one another and increase the volatility of the
investment's return. On the other hand, if two risks affect an investment's return in an opposing manner (i.e. one in a positive manner and the other in a negative manner) the net result is that one tends to cancel the other.

As an example of risk interaction, consider the positive relationship between inflation and interest rate changes. With virtually all investments being influenced by both risks, the interaction between the two becomes an important consideration for any investor. The two risks reinforce one another to produce exaggerated changes in the return of some investments. For other investments the two risks tend to produce opposing forces.

The bottom line is that when two risks interact to cancel the effects of one another for a particular investment, then the overall risk exposure to investors holding that investment is reduced. On the other hand, if two risks interact to amplify the effects of one another, then the overall risks exposure in owning that investment is increased. Shareholders and creditors are two prominent groups in business world with legitimate and direct interests in the quality of investments they make. The choice of an investment breaks down into two components. The first is how much to consume now, versus, how much to invest (the savings decision). The second is selection of opportunities, in which to place investable funds (the portfolio decision). The portfolio concept is generally referred to equity or debt investments.

RISK AND RETURN

Return, in most instances indicate the return on an investment over a particular span of time called holding period return. Return is measured by the
sum of change in the market price of a security plus any income received over a holding period divided by the price of a security at the beginning of the holding period.\textsuperscript{15}

The factors that affect risk and the variability of returns include:

1. The maturity period of an instrument - the longer the maturity the more risky it is.
2. The risk characteristics and credit worthiness of the issuer or guarantor of the investment.
3. The nature and priority of the claims the investment has on income and assets.
4. The liquidity of the instrument and the type of market in which it is traded.

If risk is related to these elements, then measures of risk such as the variability of returns should be related to these same factors.

The history of annual returns over the 1926-1993 period for short-term Treasury bills, long-term Treasury bonds, and common stock is plotted in Fig. 1. Examination of the graph makes it clear that Treasury bonds have a more variable return pattern than Treasury bills due to the longer maturity of the claim. Common stocks show even more variability because the issuer has a higher risk and because the claims on income and are more junior in nature.

Figure 1

RATES OF RETURN VERSUS TIME FOR MAJOR SECURITY TYPES

There appears to be a direct correlation between risk and return. The higher the reward, the higher is the risk. But seeking excessive risk does not ensure excessive return. At a given level of return, each security has a different degree of risk. If high and stable income is required by an investor then capital growth is given up. If greater current income or greater capital appreciation is needed then greater risk is to be assumed. The final selection regarding the portfolio depends upon the trade-off between risk and return. Though it is not easy to establish a relationship between risk and return, Amling has suggested that value judgement must be made by an investor in regard to the relationship between the perceived level of return. All rational investors want a substantial return from their investment, but they are not always willing to accept the risks associated with the high returns desired. The risk in holding securities is that the actual realised returns might be less than the expected returns. The investor attempts to secure the largest possible rate of return at the lowest level of risk that he is willing and able to assume. While risk is the uncertainty about the size of future returns on a principal amount of money invested, rate of return is the relationship between the total return realised and the principal amount originally invested and expressed as an annual percentage rate.

The investor has to estimate the highest level of risk that he is able to assume. Any such estimate is essentially subjective. The relationship between the amount of risk assured and the amount of expected return is depicted in the diagram. (Fig 2)


Figure 2

POSITIVE RELATIONSHIP BETWEEN RISK AND RETURN

Risk is measured along the vertical axis Y and rises from bottom to top. Expected rate of return is measured on the horizontal axis X and increases from left to right. The line from point O to X, is generally called the rate of return on riskless investments like treasury bills. The diagonal line from $X_1$, to ER illustrates the concept of expected rates of return increasing as levels of risk increase.

An investor, to be successful in the long run, must have access to pertinent, timely information on which to base investment decisions. All financial decisions that an individual makes should be based on fundamental data from reliable sources that, if properly understood and applied, can greatly increase an investor’s chances for success.

In some way, technological advances in one industry can affect another industry. The jute industry went into decline when alternate and cheaper packing materials began to be used. The popularity of cotton clothes in the West affected the synthetic textile industry. An investor must therefore examine the industry in which a company operates because this can have a tremendous effect on its results, and even its existence. Even if a company’s management is superior and its balance sheet is strong, the investor loses if the company has not diversified and the industry within which it operates is in a depression.
It is generally believed that diversification reduces portfolio risk without sacrificing return. Diversification results from combining securities whose returns are less than perfectly correlated in order to reduce portfolio risk. The portfolio return is simply the weighted average of the individual security returns, irrespective of the number of securities in the portfolio. Therefore, diversification will not affect the portfolio return, but will reduce the variability of the return. In general, the less the correlation among security returns, the greater the impact of diversification on reducing variability. This is true no matter how risky the securities of the portfolio are, when considered in isolation. While portfolio risk can be reduced substantiably by diversification, it cannot be eliminated entirely.

Studies have shown that for the average NYSE common stock, systematic risk is about 30%, while unsystematic risk is about 70% of return variance. In contrast, the co-efficient of determination for a well-diversified portfolio of stocks will typically exceed 90% indicating that unsystematic risk is less than 10% of total portfolio return variance. This is graphically presented in Fig 3.


\footnote{Frank J. Fabozzi and Franco Modigliani. op cit. p.199.}
Figure 3
SYSTEMATIC AND UNSYSTEMATIC RISK

Standard deviation of portfolio return

Unsystematic or diversifiable risk

Total risk

Systematic or market-related risk

Number of holdings

Source: Donald E. Vaughn, Survey of Investments, Illinois: The Dryden Press, 1974, p.72
Capital Asset Pricing Model (CAPM)

The CAPM model predicts the expected return that an investor should require in order to acquire an asset, given the assumptions about the behaviour and expectations of investors. It also provided an answer to the question of what risk premium an investor should require. If the expected cash flow and the expected returns are known, the investor can determine the theoretical value of an asset.

The capital market theory is an abstraction of the real world and is based on assumptions which are grouped as - assumptions about investor behaviour and assumptions about capital markets.²⁰

Assumptions about Investor Behaviour

The assumptions about the behaviour of investors in constructing a portfolio of risky assets are as follows:

1. Investors make investment decisions based on two parameters: the expected return and the variance of returns. The specific behaviour they are assumed to follow is that in order to accept greater risk, they must be compensated by the opportunity of realising a higher return. If an investor faces a choice between two portfolios with the same expected return, he will select the portfolio with lower risk.

2. The investor will ascribe to the methodology of reducing portfolio risk by combining assets with counter balancing correlations.

3. All investors make investment decisions over some single-period investment horizon.

²⁰ Frank Fabozzi and Franco Modigliani. op cit. p.188.
4. The homogeneous expectations assumption is that the same expectations with respect to the inputs that are used to derive the Markowitz efficient portfolios: asset returns, variances, and correlations.

Assumptions about Capital Market

The assumptions about the characteristics of the capital market in which investors transact are as follows:

1. The capital market is assumed to be perfectly competitive. That is the number of buyers and sellers is sufficiently large, and all investors are small enough relative to the market, so that no individual investor can influence an asset's price.

2. There are no transaction costs or impediments that interfere with the supply and demand for an asset.

3. It is assumed that there is a risk-free asset in which investors can invest. It is also assumed that investors can not only invest in such an asset but can borrow funds at the same interest rate offered on that risk-free asset.

Banerjee\(^2\) gives a list of eight assumption and that, more than being assumptions, they are statements that describe the model and its meaning. The following list describes the logical sequence of these assumptions:

i. Risk is the variance of expected portfolio returns.

ii. Risk can be broken into two components: diversifiable (unsystematic) risk and non-diversifiable (systematic) risk.

iii. Proper diversification can reduce unsystematic risk.

iv. Beta is the relevant measure of risk for investors with diversified portfolios.

v. Risk and return are linearly related by beta - that is, risk and return are in equilibrium.

vi. Return is total return.

vii. An investor holds portion of two portfolios - the risk-free asset and the market portfolio.

viii. The return that an investor actually receives is derived only from two sources: risk proportional market return plus non-systematic random return. No other factor is consistent in its effects on security returns.

If all these assumptions were to hold true, the CAPM would reduce the situation to an extreme case. Every investor can device an appropriate strategy and determine a set of efficient risky portfolios, but everyone would obtain the same set a combination of all securities, each in proportion to market value called the market portfolio.

The market would thus come into equilibrium when:

i. there is consistency between the total amount one group of investors wishes to borrow and another group wishes to lend.

ii. the preferred combination of risky securities contains every such security, each in proportion to its market value.
MAJOR CONSIDERATIONS IN PREDICTING INDUSTRY PERFORMANCE

In analysing the performance of any industry, several factors are essential because they provide important indications of how well the industry is likely to perform in the future.

1. **Product Stability:** The degree of product stability within an industry is also to be considered. Though historical data indicates the past demand for the industry's product, the nature of the product and its technological sophistication must be examined to determine whether future demand will remain stable or change rapidly. For eg. industries based on fad products will vanish quickly whereas more stable industries such as steel or chemical industry have long established product demands.

2. **Competitive Influence:** The level of competition among various companies in an industry is another factor to be considered. Competition within an industry initially leads to efficiency, product improvements and innovations. As competition increases even more, cut throat price wars set in resulting in lower margins, smaller profits, and finally, some companies begin to make losses. The more inefficient companies even close down.

3. **Patterns of industrial performance:** An investor should be aware that industries often exhibit identifiable and somewhat predictable patterns of growth and decline over varying periods.
Even though it may be impossible to predict the exact magnitude and timing of major changes, knowledge of their existence will at least help the investor to identify the current stages of industrial development and to understand the dynamics involved.

4. **Industrial Life Cycle:** Every industry displays a distinct growth pattern over its history called the industrial life cycle. This cycle is divided into four primary stages, namely entrepreneurial or infancy stage, expansion or growth stage, stabilisation or maturity stage and decline stage.

**Infancy or Entrepreneurial Stage**

During this stage, demand for the product increases rapidly. New firms enter the market to seek their share of profit. Competition is heavy and prices tend to be unstable. As the number of firms increase, prices and profits tend to fall with higher levels of production. Many inefficient or less efficient firms fail because of heavy start-up costs and price competition. Consequently, only a few firms remain and some may begin to dominate the industry as the infancy period comes to an end. On account of the high risk of failure, speculators rather than investors tend to supply the needed capital during this period.

**Growth or Expansion Stage**

During this stage, growth continues but at a slower, more orderly rate than during the infancy period. The market tends to be dominated by the firms that emerged from the infancy period with a reasonable amount of marketing
and financial strength. These firms are often larger and usually display stronger and more stable capital structures that allow these to begin to pay regular dividends and expand their operation. Competition continues, but the established firms have generally demonstrated their ability to compete, survive and grow.

Stabilization or Maturity Stage

During stabilization or maturity stage, the industry's rate of growth declines to a more moderate level. In some cases, growth may also cease as the industry loses its capacity to grow. The final transition of the maturity stage will be difficult to discern over a short period of time, but in general, an investor will want to withdraw funds when this stage begins.

Decline Stage

In this stage, the industry finally declines. The risk at this time is high but the returns are low, some times even negative.

Although these four stages are generalizations and do not apply in every circumstance, they describe a sufficient number of industrial growth patterns to justify careful cautious consideration in selecting industries for investment.

5. **Labour Considerations**: An investor must also examine factors affecting the labour force. When labour performs a large or critical part of the production process, the investor must be concerned about the effect of a strike. A company that has a motivated, industrious work force has high productivity
and practically no disruption of work. On the other hand, bad labour relations will result in losing several mandays as a consequence of strikes and go slows. In 1992, Bata the giant shoe company, was closed due to strikes for nearly 4 months and as a consequence, its results in the year to 31st March 1993 were extremely bad. It is on account of the militancy of labour force that many companies are reluctant to invest in states such as Kerala and West Bengal.

6. **The Political Equation:** A stable political environment is necessary for steady, balanced growth. If a country is ruled by a stable government which takes decision for the long-term development of the country, industries and companies will prosper. On the other hand, instability causes insecurity, especially if there is the possibility of a government being ousted and replaced by another that holds diametrically different political and economic beliefs.

   International events also have an impact on industries and companies. For eg. when the USSR, one of India's biggest purchasers, broke up into the Confederation of Independent States Indian exports declined and this affected the profitability of companies who had to search for other markets. Wars also have a similar effect since it is expensive and wasteful. It is estimated that the gulf war cost India nearly $ 1.5 billion due to higher prices of petroleum products and other opportunity costs.

7. **Foreign Exchange Reserves:** A country needs foreign exchange reserves to meet the commitments, pay for the imports and service foreign debts. Without foreign exchange, a country would not be able to import materials or goods for its development and there is also a loss of international confidence in such a country. For instance in 1991, India was forced to devalue
the rupee as our foreign exchange reserves were very low, barely enough for a few week's imports. The crisis was averted at that time by an IMF loan, the pledging of gold, and the devaluation of the rupee.

8. **Government intervention:** An investor must evaluate the government's policy toward the particular industry under examination because government involvement can greatly influence the industry in a number of ways. It can promote the industry through research grants, favourable tax legislation, tariffs designed to restrict foreign competition and a number of additional legislative and executive actions that protect the industry, reduce its costs and stimulate investment in it. On the other hand, the government may burden an industry with restrictive regulations concerning the ecology, safety, size of firms and pricing.

9. **Management of the Company:** An important factor one should consider when investing in a company is its management. It is upon the quality, competence and vision of the management that the future of the company rests. Metal box was a name known and respected, the bluest of blue chips. After a series of occurrences including a diversification that went wrong, the company was forced to close all its factories. Similarly Killick Nixon was one of the most respected names in Western India, which it no longer is; on the other hand, there are numerous success stories of prosperity that resulted due to the foresight and vision of management. Mr.Haksar diversified ITC into hotels and his successor diversified into agro based industries. These have been successes. The success of Videocon could probably be attributed to Venugopal
Dhoot, Bajaj Auto's growth and profitability is due to Rahul Bajaj, and Reliance empire due to Dhirubhai Ambani.

In India, the management can be broadly divided into two types:

- Family Management

- Professional Management

Family managed companies are those, that have at the helm a member of the controlling family. The Chairman or the Chief Executive Officer is usually a member of the ruling family and the Board of Directors are peopled either by members of the family or their friends. On such cases, all policy decisions are taken by the controlling family and some of the policies may not necessarily be in the shareholders best interest. For eg. a few years ago, Kirloskar Pneumatic was quoting at Rs.36 per share. At that time, Kirloskar Tractors was not doing well. The controlling family merged the two companies and the price of Kirloskar Pneumatic fell to Rs.10. It was probably good for the family and for the shareholders of Kriloskar Tractors, but the merger was disastrous for the shareholder of Kirloskar Pneumatics. In short, decisions are often made with family interest in view.

Mr.T.Thomas, a former chairman of Hindustan Lever Ltd. describes the family business structure most eloquently in the memoir, 'To challenge and to change'. He speaks of an Indian family business having a series of concentric
circles emanating from a core - the core being made up of the founder and his brothers or sons. The next circle is the extended family of cousins and relatives followed by people from the same religion or caste group. The fourth circle comprises of people from the same language group and the outermost circle has people from the same religion. Mr. Thomas says that to go beyond this was like going out of orbit, unthinkably risky.

There has however, been some changes in the way family controlled business have been managed. In the beginning, these were often orthodox, autocratic, traditional, rigid and averse to change. For the past two decades, the sons and grandsons of the founding fathers have been educated at the best business schools and they have been exposed to modern methods. Consequently in many family managed companies, although the man at the helm is a scion of the family his subordinates are graduates of business schools. To an extent, this combines the best of two worlds and many such business are very successful.

Professionally managed companies are those that are managed by employees. In such companies, the chief executive officer often does not even have a financial stake in the company. He is at the helm of affairs because of his ability and experience.
Professional managers are result-oriented and aware of the latest trends in management philosophy and tries to introduce those. As a result, professionally organised business are usually well organised, growth oriented and good performers. Investors are the recipients of regular dividends and bonus issues. Some examples of such companies are ITC, Colgate and Hindustan Lever.

But, it would be unfair to state that investors should invest only in professionally managed companies or family managed companies. There are well managed, profitable companies in both categories. Therefore, the most important aspect the investor should look for is the integrity of the management. One should also check who the major shareholders of the company are.

Another point to consider is proven competence (i.e.) the past record of the management. An investor must, before he risks his money, decide whether he feels confident with the management of a company.
The investor's objective is to obtain the highest possible total rate of return at the highest acceptable levels of risk. The problem of determining one's ability to assume risk is difficult. The problem cannot be solved adequately by taking a quick look at an investor and determining whether he is a speculator or an ultraconservative investor. The problem of estimating risk and the constraints on an investor can be solved adequately only by examining all the principal conditions that affect the ability of people and institutions to absorb the impact of low rates of return and loss of principal.

Risk and return bear a definite relationship with each other. The higher the risk assumed by the investor, the higher the expected gain or loss should be. Many investors forget the "or loss." The return, whether it is in the form of dividends, interest, or appreciation in the value of the security over any period of time, is the investor's compensation for the degree and type of risks.

An investor might reason that he could achieve greater returns by assuming more risk. The individual may not have the financial stability, psychological makeup, or knowledge and experience to withstand increased risk. In such a case, increased risk may lead to financial disaster. When an investor evaluates the risks inherent in a security, he must know how these risks will affect him and how he will respond to such risks. The investor's ability to accept risk is called investor constraint.
FINANCIAL CONSTRAINTS

For an investor to evaluate the impact of various risks on his financial circumstances, he must understand the budget restrictions on his long-range overall financial plan. The investor's budget should contain an estimate of the amount of funds, if any, that can be appropriated from savings for investment. If investment funds are accumulated each year for important future family obligations, such as children's college education, then the degree of risk that can be assumed may be less than if the funds had no significant requirement.

PSYCHOLOGICAL CONSTRAINTS

An individual's temperament affects the ability to withstand risk. The higher the risk, the more volatile the market performance of a security, and greater the opportunity for high gain or loss. Although all investors try to maximize their returns with the least amount of risk and, therefore, tend to be risk averters, some are never able to make rational decisions about risky investments. The following diagram (Fig 4) illustrates the small investor syndrome.

It shows how emotions enter the investment picture and cause the investor to make a wrong decision.
Figure 4

THE SMALL INVESTOR SYNDROME


How much to invest and in what securities, are in part, a function of people's preferences and tastes. Given adequate present requirements and consumption, more wealth (future consumption) is generally preferred to less. Increase in wealth beyond a certain level, apparently brings about lesser amounts of satisfaction. Another feature of investor behaviour is that, other things being equal, most investors prefer less uncertainty about wealth to more uncertainty. They are thus "risk averse" in their choice behaviour.

To be successful over the long run, an investor must have access to pertinent, timely information on which to base investment decisions. All financial decisions that an individual makes should be based on fundamental data from reliable sources that, if properly understood and applied, can greatly increase an investor's chances for success. The one factor contributing to the failure of investors in the stock market has been a lack of proper investigation of available information.22

Investor capability in acquiring and processing information is an important issue to the accounting profession in the light of accounting regulators' perceived mandate to protect small, less sophisticated investors. The AICPA in its 1973 Report of Financial statements, states: "An objective of financial statements is to serve primarily those users who have limited authority, ability or resources to obtain information and who rely on financial statements as their principal source of information about an enterprises

economic activities. Though it is not very costly to obtain a firm's financial statements, understanding their implications may be quite costly in terms of time, effort and other investor resources. Accordingly, a financial statement in viewed as information only after it has been analysed. In a corporate world characterized by the separation of ownership and control, firm disclosures can serve as a monitoring mechanisms for the agency relationship between a manager and the share holders.

HIERARCHY OF QUALITIES

Qualitative characteristics or qualities necessary for information are viewed as a hierarchy of qualities, with usefulness for decision-making of paramount importance. These qualities serve a major supporting role in the decision usefulness, decision model approach to accounting theory. They make information a desirable commodity, and guide the selection of preferred accounting policies and methods from among available alternatives. It is those qualities that distinguish, more useful accounting information from less useful information.

The primary qualities are that information shall be relevant and reliable. If either of those qualities is completely missing, the information will not be useful. Relevance and reliability can be further analysed, into a number of components. To be relevant, information must be timely, and it must have predictive value or feedback value or both. To be reliable, information must have representational faithfulness, and it must be verifiable and neutral.

Comparability, including consistency, is a secondary quality that interacts with relevance and reliability, to contribute to the usefulness of information. Information can be useful and yet be too costly, to justify providing it. To be useful and worth providing, the benefits of information should not exceed its cost.

**Decision-makers and their characteristics**

Each decision-maker judges what information is useful and the decision-maker's capacity (alone or with professional help) to process the information. The optimal information for one user will not be optimal for another.

The better informed the decision-makers are, the less likely it is that any new information can add, materially, to what they already know. That may make the new information less useful, but it does not make it less relevant to the situation. For that reason, relevance is generally defined in terms of the capacity of information to make a difference (to someone who does not already have it), rather than in terms of the difference it actually does make.

Similarly, information cannot be useful to a person who cannot understand it. However, information may be relevant to a situation, even though it cannot be understood by the person who confronts the situation. Its relevance will depend on its capacity to reduce uncertainty about the situation, even though it may call for more understanding to interpret it than its prospective user can command.
QUALITY OF INVESTMENT INFORMATION

The qualitative characteristics that have been found wider acceptance and recognition for making investment information useful are as follows:

1. Relevance

Relevance is closely and directly related to the concept of useful information. Relevance implies that all those items of information should be reported, that may aid the users in making decisions and/or predictions. In general, information that is given greater weight in decision-making, is more relevant. American Accounting Association’s Committee to Prepare A Statement of Basic Accounting Theory defines relevance as "the primary standard and requires that information must bear upon or be usefully associated with actions it is designed to facilitate or results desired to be produced". Financial Accounting Standards Board in its Concept No.1 (para 47, 1978) comments:

"Relevant Accounting information must be capable of making a difference in a decision by helping users to form predictions about the outcomes of past, present and future events or to confirm or correct expectations".

The question of relevance arises after identification and recognition of the purpose for which the information will be used. It means that information relevant for one purpose, may not necessarily be relevant for other purposes. A necessary test of the relevance of reportable data, is the ability to predict

events of interest to statement users. Predictive value, here, means values as
an input into a predictive process, not value directly as a prediction.

2. Reliability

Reliable information is required to form judgements about the earning
potential and financial position of a business firm. Reliability differs from item
to item. Some items of information, presented in an annual report, may be
more reliable than others. For example, information regarding plant and
machinery may be less reliable, than certain information about current assess,
because of differences in uncertainty of realisation. FASB Concept No.2
concludes:

"The reliability of a measure rests on the faithfulness with which it
represents what it purports to represent, coupled with an assurance for the
user that it has that representational quality. To be useful, information must
be reliable as well as relevant. Degrees of reliability must be recognised. It is
hardly ever a question of black or white, but rather of more reliability or less.
Reliability rests upon the extent to which the accounting description or
measurement is verifiable and representationally faithful. Neutrality of
information also interacts with those two components of reliability to affect the
usefulness of the information." 25

FASB (USA) finds, that it is not always easy to maintain a clear distinction between relevance and reliability, yet it is important to try to keep the two concepts apart. To explain this point, the FASB (Concept No.2) illustrates further.26

"Two different meanings of reliability can be distinguished and illustrated by considering what might be meant by describing a drug as reliable. It could mean that the drug can be relied on to cure or alleviate the condition for which it was prescribed, or it could mean that a dose of the drug can be relied on to conform to the formula shown on the label. The first meaning implied that the drug is effective at doing what it is expected to do. The second meaning implies nothing about effectiveness but does imply a correspondence between what is represented on the label and what is contained in the bottle".

It has also been argued that there is no conflict between relevance and reliability concepts, when applied to financial accounting and reporting by companies. For example, Stanga27 concludes in his study that financial accounting concepts of relevance and reliability are complementary rather than conflicting in nature. That is, increase in relevance tend to be associated with increases in reliability and vice-versa.


3. Understandability

Understandability, is the quality of information that enables users to perceive its significance. The benefits of information, may be increased by making it more understandable, and hence useful to a wider circle of users. Presenting information which can be understood only by sophisticated users and not by others, creates a bias which is inconsistent with the standard of adequate disclosure. Presentation of information should not only facilitate understanding, but also avoid wrong interpretation of financial statements. Thus, understandable financial accounting information, presents data that can be understood by users of the information, and is expressed in a form and with terminology adopted to the user’s range of understanding. The Corporate Report observes: "Understandability does not necessarily mean simplicity, or that information must be presented in elementary terms, for that may not be consistent with the proper description of complex economic activities".

4. Timeliness

Timeliness, means having information available to decision-makers, before it loses its capacity to influence decisions. Timeliness is an ancillary aspect of relevance. If, information is either not available when it is needed, or becomes available so long after the reported events that it has no value for future action, it lacks relevance and is of little or no use. Timeliness alone, can


not make information relevant, but a lack of timeliness, can rob information of relevance it might otherwise have had.30

5. Neutrality

Neutrality is also known as the quality of "freedom from bias" or objectivity. Neutrality means that, in formulating or implementing standards, the primary concern should be the relevance and reliability of the information that results, not the effect that the new rule may have on a particular interest of user(s). A neutral choice between accounting alternatives, is free from bias towards a predetermined result. The objectives of (general purpose) financial reporting, serve many different information users who have diverse interests, and no single predetermined result is likely to suit all users' interests and purposes.

6. Comparability

An economic decision requires making a choice from among several possible courses of actions. In making decisions, the decision-maker will compare alternatives, aided or facilitated by financial information. Comparability implies, to have like things reported in a similar fashion, and unlike things reported differently. Hendriksen,31 observes that the "primary objective of comparability should be to facilitate the making of predictions and financial decisions by creditors, investors and others". He defines comparability

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as "the quality or state of having enough like characteristics to make comparisons appropriate". *FASB (USA) Concept No.2 (para 115, 1980)* defines comparability" ....as the quality or state of having certain characteristics in common, and comparison is normally a quantitative assessment of the common characteristics. Clearly, valid comparison is possible only if the measurement used - the quantities or ratios - reliably represent the characteristics that is the subject of comparison". Information, if comparable, will assist the decision-marker to determine relative financial strengths and weaknesses and prospects for the future, between two or more firms or between periods in a single firm.

7. **Consistency**

Consistency of method over a period of time, is a valuable quality that makes accounting numbers more useful. Consistent use of accounting principles from one accounting period to another enhances the utility of financial statements to users, by facilitating analysis and understanding of comparative accounting data. It is relatively unimportant to the investor what precise rules or conventions are adopted by a company in reporting its earnings, if he knows what method is being followed and is assured that it is followed consistently from year to year. Lack of consistency produces lack of comparability. The value of inter-company comparisons is substantially reduced, when material differences in income are caused by variations in accounting practices.
8. Materiality

The concept of materiality permeates the entire field of accounting and auditing. The materiality concept implies that, not all financial information needs to be or should be, communicated in accounting reports - only material information should be reported. Immaterial information may and probably should be omitted. Only that information should be disclosed in the annual report, which is likely to influence economic decisions of the users. Information that meets this requirement is material.

Generally, the decision-makers see materiality in relation to actual assets or income. Investors see materiality in terms of the rate of change, or change in the rate of change. What seems not to be material in business may turn out to be very important in the investment market. Neumann\(^3\) has established that the effect on earnings was the primary standard to evaluate materiality in a specific case.

9. Economic realism

Economic realism is a concept, that seems easy to understand but hard to define because perceptions of reality differ. In essence, economic reality means an accurate measurement of the business operations, that is, economic costs and benefits generated in business activity. The definitional problem arises from cash vs accrual accounting, or the principle of matching costs with revenues. Accrual accounting is necessary for complex

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organisations, of course, but, where accruals and estimates have a considerable degree of uncertainty as to amount or timing, cash accounting would seem to come closer to economic realism.

10. Verifiability

The quality of verifiability contributes to the usefulness of accounting information, because the purpose of verification is to provide a significant degree of assurance that accounting measures represent, what they purport to represent. Verification does not guarantee the suitability of method used, much less the correctness of the resulting measure. It does convey some assurance that the measurement rule used, whatever it was, was applied carefully and without personal bias on the part of the measurer. Verification contributes little or nothing toward insuring that measures used are relevant to the decisions for which the information is intended to be useful.\textsuperscript{33} The Accounting Principles Board defined verifiability as:

"Verifiable financial accounting information provides results that would be substantially duplicated by independent measurers using the same measurement methods".\textsuperscript{34}

\textsuperscript{33} Financial Accounting Standards Board, Concepts No.2, Ibid p.34.

\textsuperscript{34} Accounting Principles Board, Statement No.4, Ibid, para 90.
11. Conservatism

Conservatism is generally referred to as a convention that many accountants believe to be appropriate in making accounting decisions. According to APB Statement 4:

"Frequently, assets and liabilities are measured in a context of significant uncertainties. Historically, managers, investors, and accountants have generally preferred that possible errors in measurement be in the direction of understatement rather than overstatement of net income and net assets. This has led to the convention of conservatism".\textsuperscript{35}

There is a place for a convention, such as conservatism - meaning prudence - in financial accounting and reporting, because business and economic activities are surrounded by uncertainty, but it needs to be applied with care.\textsuperscript{36}

\textsuperscript{35} Accounting Principles Board, Statement No.4, Ibid, para 171.

\textsuperscript{36} Financial Accounting Standards Board, Concepts No.2, pp 38-40.
Financial Accounting Standards Board of USA further comments:

"The best way to avoid the injury to investors that imprudent reporting creates, is to try to ensure that what is reported represents what it purports to represent. The reliability of financial reporting may be enhanced by disclosing the nature and extent of the uncertainty surrounding events and transactions reported to stock-holders and others.

In assessing the prospect that as yet uncompleted transactions will be concluded successfully, a degree of skepticism is often warranted. The aim must be to put the users of financial information in the best possible position to form their own opinion of the probable outcome of the events reported.

Prudent reporting based on a healthy skepticism builds confidence in the results and, in the long run, best serves all of the divergent interests that are represented by the constituents".37

Finally, it can be concluded that there are likely to be trade-offs between qualitative characteristics in many circumstances. In a particular situation, the importance attached to one quality in relation to the importance of other qualities of accounting information will be different for different information users, and their willingness to trade one quality for another will also differ.

It has been suggested that, "to be useful, financial information must have each of the qualities (mentioned) to a minimum degree. Beyond that, the rate at which one quality can be sacrificed in return for a gain in another quality without making the information less useful overall will be different in different situations".38

A Review

As may be observed from the various theoretical aspects regarding risk and information, both are in a way too involved, technical and academic. Description and articulation of the ‘risk’ involved or the direct relationship between risk and return and how even an approximate quantification is possible is so technical for the small / occasional investor. And when internal events have made the risk still bigger, these investors might find that it is all beyond their comprehension and the effort to understand is also not worth it for the return he is planning.

Again, as may be observed from the quality of information it is a nice academic description but if all the qualities are considered together it is not known what - quality will emerge! Quality may be multidimensional but for the understanding by the small / occasional investor it has to be in one or two dimension to be effective and practical.

Quality and refinement grow at a pace and they need not be the same to all viz the professional portfolio investor in the USA and the present sample.

It is also worth noting that the theoretical descriptions are based mostly on investors in the secondary market - where the shares are already listed and have a market price. In India a large number of companies entered the primary market for the first time during the early 1990s which made the subject important but in the later part share market itself, leave alone the portfolio investors, shrinked.

This development (decline) cannot be ignored while attempting to understand the small and occasional investor.
The brief reference to the assumption of the CAPM serves the purpose of understanding the measurement of risk - return equilibrium whereas the present study goes back to the perception of risk itself on the basis of information.

The purpose served by the present exercise, then, seems to be updating ones academic awareness and the awareness that the data analysis must confine itself to the core parts of the theoretical issues to makes it meaningful.