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PORTFOLIO MANAGEMENT:
THE PROCESS AND ITS DYNAMICS

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PORTFOLIO MANAGEMENT: THE PROCESS AND ITS DYNAMICS

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ABSTRACT

Like many areas of business, portfolio management is both an art and a science. It is much more than the selection of securities from a catalog by a financial consultant or the application of a formula to a set of financial data input supplied by a security analyst. It is a dynamic decision-making process, one that is continuous and systematic but also one that requires large amounts of astute managerial judgment about the securities markets and the individual for whom portfolio is managed. The author in this article documents the processes involved in portfolio management and the considerations which are of paramount importance in constructing an individual's portfolio.

PORTFOLIO MANAGEMENT: THE PROCESS AND ITS DYNAMICS

In the past one decade, significant changes have taken place in investment climate in India. Portfolio management is becoming a rapidly growing area serving a broad array of investors - both individual and institutional- with investment portfolio ranging in asset size from thousands to crores of rupees. It is becoming important because of

i) Emergence of institutional investing on behalf of individuals. A number of financial institutions, mutual funds, and other agencies are undertaking the task of investing small investors' money on their behalf,

ii) growth in the number and size of investible funds - large part of household savings are being directed towards financial assets,

iii) increased market volatility - risk and return parameters of financial assets are continuously changing because of frequent changes in government industrial and fiscal policies, economic uncertainty, and instability ,

iv) greater use of computers for processing mass of data,

v) professionalization of the field and increasing use of analytical methods (e.g., quantitative techniques) in the investment decision making, and

vi) larger direct and indirect costs of errors or shortfalls in meeting portfolio objectives - increased competition and greater scrutiny by investors.

BACKGROUND

Despite its growing importance, the subject of portfolio management is new in our country and is largely misunderstood. In most cases, portfolio management has been practiced as an investment management counseling in which the investor has been advised to seek assets that would grow in value and/or provide income. Much of the portfolio advise from experts is based on a catalog approach, where investment is explained in terms of classes of assets matched with classes of investors on an almost ad hoc basis, without looking the investment process in its totality. Too much emphasis is put on rate of return and tax saving without specifying the inherent risk.

The Processes of Portfolio Management

The process of portfolio management is conceptually quite easy to understand. It involves a logical set of steps common to

any decision : planning, implementation and monitoring. Yet the application of these process to actual portfolios is quite difficult and opinions are divided as to how best to do so. However, certain basic principles can be applied to all portfolio decisions :

1. In portfolio management emphasis is put on identifying the collective importance of all investor's holdings. The emphasis shifts from individual assets selection to a more balanced emphasis on diversification and risk -return interrelationships of individual assets within the portfolio. Individual securities are important only to the extent they affect the aggregate portfolio. For example, a security's risk should not be based on the uncertainty of single security's return but, instead, on its contribution to the uncertainty of the total portfolio's return. In addition assets such as a person's career or likely inheritance should also be considered together with the security portfolio. In short, all decisions should focus on the impact which the decision will have on the aggregate portfolio of all the assets held.

2. Each portfolio should be tailored to the particular needs of its owner. People have varying tax rates, knowledge, transaction cost etc. Portfolio strategy should be molded to the unique needs and characteristics of the portfolio's owner.

3. Diversification across securities will reduce a portfolio's risk. If the risk and return are lower than the desired level, leverages (borrowing) can be used to achieve the desired level.

4. Larger portfolio returns come only with larger portfolio risk. The most important decision to make is the amount of risk which is acceptable. This is not an easy decision since it requires that the investor has some idea of the risk and expected returns available on many different classes of assets.

5. The risk associated with a security type depends on when the investment will be liquidated. A person who plans to sell in one year will find common stock return to be more risky than a person who plans to sell it in five years. Risk is reduced by selecting securities with a payoff close to when the portfolio is to be liquidated.

6. Competition for abnormal returns is extensive, so one has to be careful in evaluating the risk and return from to securities. Imbalances do not last long and one has to act fast to profit from exceptional opportunities.

Step in Portfolio Management

Portfolio management which is an ongoing process, generally, consists of the following steps :

1) Specification and quantification of investor objectives, constraints, and preferences in the form of an investment policy statement.

2) Determination and quantification of capital market expectations for the economy, market sectors, industries, and individual securities.

3) Allocation of assets and determination of appropriate portfolio strategies for each asset class and selection of individual securities.

4) Performance measurement and evaluation to insure attainment of investor objectives.

5) Monitoring portfolio factors and responding to changes in investor objectives, constraints and/or capital market expectations.

6) Rebalancing the portfolio when necessary by repeating the asset allocation, portfolio strategy, and security selection.

PORTFOLIO MANAGEMENT FOR AN INDIVIDUAL INVESTOR

Portfolio decisions for an individual investor are influenced by a wide variety of factors. Individuals differ greatly in their circumstances, and therefore, a financial programme well-suited to one individual may be inappropriate for another. Ideally, an individual's portfolio should be tailor made to fit one's individual needs.

Generally speaking, very few investors compute with any degree of precision the amount of surplus funds that can be put into securities stock market, but a decision must be made about the size of the portfolio. This can be decided only by the investor himself, regardless of how much advice he may obtain from others. For a particular individual it may be nothing or a very large sum depending upon his circumstances. From their current income, individuals have only limited funds at their disposal after meeting their living expenses, but they may have large accumulated savings or inherited wealth which could form their portfolios. Once the size of a portfolio is determined, certain broad generalizations are possible concerning what securities should be purchased and when such purchases should be timed. Accumulated wealth can be invested in a number of outlets, such as fixed deposits with banks, investments in UTI schemes, life insurance, debentures, bonds, shares in mutual funds, shares and bonds of business corporations, bullion, real estate, etc. In planning a portfolio strategy for an individual, it is necessary that individual characteristics are considered.

Investor's Characteristics

An analysis of an individual's investment situation requires a study of his personal characteristics such as age, health conditions, personal habits, family responsibilities, business or professional situation, and tax status, all of which affect the investor's willingness to assume risk. Some of the important characteristics which would affect portfolio decisions are as follows:

Stage in the Life Cycle

One of the most important factors affecting the individual's investment objective is his stage in the life cycle. A young person may put greater emphasis on growth and lesser emphasis on liquidity. He can afford to wait for realization of capital gains as his time horizon is large. However, the young investor should not take very large risk since he is new at the game and would be quite distressed by the loss of a significant share of initial, hard-earned capital accumulation.

As the person moves in his 30s and 40s, he accumulates sufficient capital, and become financially more secure and sophisticated. It is during this period that funds can be used more aggressively. The whole gamut of investment possibilities can be considered. At this age of his life cycle, he also becomes conscious of increasing tax bite from his current income, and desires to accumulate capital on a tax-advantage basis. As the person advances further in his age, reduction of current taxes, marrying of children, buying of home and retirement planning dominates his investment planning. He becomes more cautious and generally prefers to keep his investment in a fairly liquid form, emphasizing income and safety of principal instead of growth. In old age, it makes less sense to take speculative chances in the pursuit of capital gains and high returns. However, where each individual fixes his risk-return trade-off at the various stages of his life cycle depends on individual circumstances and individual's risk taking attitude.

Family Responsibilities

The investor's marital status and his responsibilities towards other members of the family can have a large impact on his investment needs and goals. The number and age of dependents and their potential educational, marital and other requirements can have a significant impact on investment planning. Higher the family responsibilities, more conservative an individual tends to be and would be less likely to speculate.

Investor's Experience

The success of portfolio depends upon the investor's knowledge and experience in financial matters. If an investor has an

aptitude for financial affairs, he may wish to be more aggressive in his investments. If he has talent in other fields, he may like to invest in the stock market moderately and use his time more productively in his profession. If his portfolio is large, he may like to entrust it with some investment counselor. However, it may be mentioned here, that if one has business and finance experience, it does not automatically guarantee success in the market, all it means is that he has more mature abilities to understand and evaluate the risk involved.

Attitude towards Risk

A person's psychological make-up and financial position dictate his ability to assume the risk. Different kinds of securities have different kinds of risks. The higher the risk, the greater the opportunity for higher gain or loss. Since risks are always present, the investor should understand their nature, be willing to accept them, and make necessary provisions against them.

The investor's temperament is an important consideration in choosing an appropriate portfolio. An investor's temperament could have a significant effect upon the performance of selected securities. Often investments are dictated by emotions. Some investors get considerably worried with a slight fluctuation in the stock market, while others can take it stoically. Some investors eagerly accept large risk, others are not emotionally prepared to accept risk. People who cannot bear the risk emotionally or financially should avoid stock markets. For people who worry considerably, less volatile securities, such as fixed income securities , may be preferable over common stocks, even though fixed income securities may not give high returns.

Liquidity Needs

Liquidity needs vary considerably among individual investors. Investors with regular income from other sources may not worry much about instantaneous liquidity, but individuals who depend heavily upon investment for meeting their general or specific needs must plan portfolio to match their liquidity needs.

Liquidity can be obtained in two ways : 1) by allocating an appropriate percentage of the portfolio to bank deposits, and 2) by requiring that bonds and equities purchased be highly marketable. Which one of the two is more reasonable would depend on why liquidity is needed. If quick access to cash is needed, then bank deposits are best, because transaction costs are low and funds are easily available. If cash needs can be anticipated sufficiently in advance, investment in debentures with buy-back arrangements and investment in stock market may be better. Furthermore, if most of the other assets held have poor marketability, such as real estate, or securities (debentures or equity) in

which often there is no trading, liquidity needs should be carefully estimated and planned for. Portfolio should be designed in such a way that accrual of cashflows can be matched with anticipated obligations.

Tax Considerations

Since different individuals, depending upon their incomes, are subjected to different marginal rates of taxes, tax considerations become most important factors in the individual's portfolio strategy. There are differing tax treatments for investment in various kinds of assets. Income from some assets are tax-sheltered, investment in some assets are tax deductible and then there are different components of total return (for example, interest or dividend income versus capital gains) which are taxed differently. In India, the government has designated a number of investments, in which the total amount or a large part of the investment are deductible from taxable income (till last year Section 80C and Section 80 CC). In some other cases, investment is deductible from current year's income but is taxable when withdrawn (Section 80 CCA and Section 80 CCB). Then there are a number of investments, income from which attracts special tax benefits (investments in UTI, Mutual funds, bank deposits, dividend income etc. under Section 80 L), while on some other investments, tax rebate (reduction in tax liability computed on other income) upto 20 % of the investment is available (Section 88 and 88A). These investments are important segments of any portfolio designed for an individual in India.

Investors in high marginal tax brackets are faced with complex portfolio decisions, High tax bracket investors are interested in investments that are designed to postpone a tax, or to reduce tax or to avoid paying taxes. They would like to invest in tax-exempt securities, if their taxable equivalent expected return exceeds the expected return on taxable securities in the same risk category. Such investors would also like to have most of their return in capital gains form rather than current dividend or interest income, since tax on capital gains (particularly of long term nature) are significantly lower than current income (Section 48). However, one must not forget that there may be investment on which after-tax income is more than tax-free income and falls in the same risk category.

Time Horizon

In Investment planning, time horizon become an important consideration. It, too, is highly variable from individual to individual. Individuals in their young age have long time horizon for planning, they can smooth out and absorb the ups and downs of risky combinations. Individuals who are old have smaller time horizon, they generally tend to avoid volatile portfolios. They become more interested in estate planning and their investment decisions accordingly gets considerably modified. In India,

where family members rights in parental properties are legally binding, estate planning and smooth division of assets among heirs may become primary consideration. In old age, the planning horizon gets reduced considerably, because division of assets may involve liquidation.

Once the characteristics of an individual investor are well understood and the size of his portfolio is determined, it is important that his financial objectives are very well defined. Financial objectives are goals that are generally defined in terms of return requirements and risk tolerance. It is generally believed that fixed income securities provides large current income with no possibility of growth in capital, while equity investment provides little current income but possibilities of substantial capital appreciation. However, equity securities are more risky than the fixed income securities. The mix of these two kinds of securities would depend upon the objectives set by the individual.

Individual's Financial Objectives

In the initial stages, the primary objective of an individual could be to accumulate wealth via regular monthly savings and have an investment program to achieve long term capital gains. Once a decent size portfolio is established, the objectives can be defined more formally. For example, primary objective could be stability of principal coupled with generous current income. In some other cases, primary objective could be appreciation of capital and current income could be secondary. Some of the objectives are as follows:

Safety of Principal

The protection of the rupee value of the investment is of prime importance to most investors. The original investment can be recovered only if the security can be readily sold in the market without much loss of value. Further, safety of principal means more than just maintaining the original value of the investment. It also means protecting the purchasing power of the funds. Therefore, the investor is expected to invest in such securities which would increase in value proportionate to the inflation to protect from purchasing power loss of the rupee. Fixed income securities are poor inflation-hedge, while it is believed that equity provides a better inflation-hedge. The relative importance of safety of principal has bearing on the degree of the risk an investor is willing to take.

Assurance of Income

Different investors have different current income needs. If an individual is dependent on its investment income for current consumption, then income received now in the form of dividend and

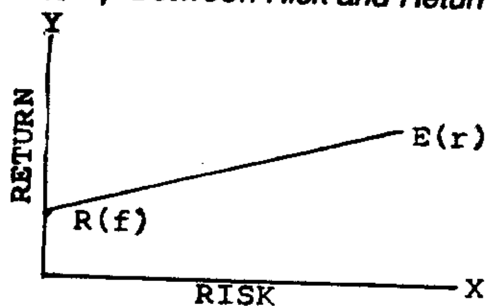
interest payments becomes primary objective. However, if current needs are met with by other means, the investor may look for price appreciation of the investment. An investor who requires an assured income should select safe securities to provide the level of income he desires. In this case, emphasis is usually placed on fixed income securities, but some common stocks that pay a high yield but lack strong growth prospects may also be appropriate for such an investor.

Investment Risk

All investment decisions revolve around the trade-off between risk and return. All rational investors want a substantial return from their investment, but they are not always willing to accept the risk associated with the high return desired. An ability to understand, measure, and properly manage investment risk is fundamental to any intelligent investor or a speculator. Frequently, the risk associated with security investment is ignored, and only the rewards are emphasized. An investor who does not fully appreciate the risks in security investments will find it difficult to obtain continuing positive results.

There is a positive relationship between the amount of risk assumed and the amount of expected return. That is, the greater the risk, the larger the expected return and the larger the chances of substantial loss. One of the most difficult problem for an investor is to estimate the highest level of risk he is able to assume. Any such estimate is essentially subjective, although attempts to quantify the willingness of an investor to assume various levels of risk can be made. The relationship between the amount of risk assumed in managing a portfolio of securities and the amount of expected return can be graphed as following :

Relationship Between Risk and Return



Risk is measured along the horizontal axis and increases from left to right. Expected rate of return is measured on the vertical axis and rises from bottom to top. The line from 0 to R(f) is called the rate of return on risk less investments commonly associated with the yield on government securities. The diagonal line from R(f) to E(r) illustrates the concept of expected rate of return increasing as level of risk increases. The example shows a linear relationship between risk and return, but

it need not be linear. Most of the theoretical work on portfolio management assumes a linear relationship between risk and return which may be true for an efficiently run competitive market in developed economies, but in developing countries like ours with administered interest rates and many other restrictive regulations, this linear relationship generally does not hold.

For an average investor, different forms of risk such as purchasing power risk, interest rate risk, business risk, and market risk are the more usual concerns while planning a portfolio.

Purchasing Power Risk

The typical investor seeks an investment which will give him current income and/or capital appreciation in addition to his original investment. Rupee being the measuring rod, all gains and losses are measured in rupee terms. However, real rupee does suffer from loss of purchasing power over time. If return on investment is measured in nominal rupees only, it is possible that an investor may receive a lesser amount of purchasing power than was committed originally. For an example, in Indira Vikas Patra, one's investment doubles in five years, and if over the same period general price level rises more than 100 per cent, the investment made in Indira Vikas Patra would result in loss in real terms.

For certain investors, purchasing power risk is extremely important. Individuals and institutions that use their income to buy goods and services are greatly concerned over any changes in the purchasing power of their income. Other investors, mostly institutional such as commercial banks, mutual funds, life insurance companies whose chief concern is to meet rupee liabilities, will wish to achieve stable rupee values rather than be primarily concerned about purchasing power risk. Traditionally, investors who want protection from purchasing power risk usually invest part of their funds in a variable return investment with the hope that those investments would rise in value over time. The investors who are not concerned with purchasing power loss would tend to invest in fixed-income securities and would prefer to avoid variability in return. The extent to which inflation governs the individual investor's policy will determine where funds should be invested.

Interest Rate Risk

Interest rate risk is the risk of loss of principal brought about by changes in the interest rate paid on new securities currently being issued. When interest rates rise, the new securities with higher coupon rates become more attractive and the existing low coupon securities decline in the prices. This would happen because existing low coupon securities holders would like to sell current holdings and invest in new securities to earn higher interest. As a result, supply of low coupon securities

would increases and prices of such securities would decline. Similarly, if interest rates decline, investors of fixed-income securities will find the prices of their holding rising. An inverse relationship exists between interest rates and prices of existing securities. It should also be noted that the shorter the period of time until a bond matures, the less susceptible the owner will be to interest rate risk. An investor must be aware of this risk while making investment in fixed-income securities.

Business risk

The volatility in stock prices due to factors intrinsic to the company itself is known as business risk. Changes in company's business fortunes, would result in price fluctuation of its security. The inability of a company to maintain its competitive position and the growth or stability of its earning is called business risk. Business risk is determined by the operating conditions of a company and by the quality of its management. Investor may choose to assume different level of business risk. He has a choice between stable industries (Utilities) or cyclical industries (shipping etc.).

Market Risk

One would notice that when the stock market surges up, most stocks post higher price. On the other hand, when the market falls sharply, most common stocks will drop. It is not uncommon to find stock prices falling from time to time while a company's earnings are rising, and vice versa. The price of a stock may fluctuate widely within a short time even though earnings remain unchanged or relatively stable. The cause of this phenomena may be varied, but usually it is the result of investor's psychology and/or changes in economic conditions at macro level. This phenomena is known as market risk. All investors of common stocks are subject to market risk, regardless of the financial condition of the particular firm or earning growth rates.

Thus, many forces contribute to the variations in the total return of securities. Factors external to the company that cannot be controlled and that affect a large number of securities create **systematic risk**. Factors internal to the company that can be controlled to a large extent and that are somewhat peculiar to industries and/or firms create **unsystematic risk.**

Conceptually and statistically, total variability in a security's return can be split into two parts - systematic and unsystematic risk. Systematic risk, also known as market risk. is caused by the factors affecting the price of all securities of like kind. Economic, policies, business, interest rates, inflation changes are sources of systematic risk. Their effect is to cause prices of all like securities to move together in the same manner. Such companies generally tend to be those companies whose sales, profits, and stock prices follow the level of economic

activity and the level of securities markets. Unsystematic risk is the portion of total risk that is unique to a company or industry such as management's capability, labor difficulties, changes in consumers' preferences, government fiscal and industrial policy with regard to company specific product or industry.

RISK AND EXPECTED RETURN IN PORTFOLIO MANAGEMENT

Investors are generally risk averse. If odds of winning or loosing are identical, they are likely to reject the gamble. Why anyone would want to expose himself to a risk without a corresponding return. A rational investor would have some degree of risk aversion, he would accept the risk if he is compensated adequately for it. The greater the risk, the greater the compensation one would require. This compensation is in the form of increased rate of return. Investments which carry low risks, such as high grade bonds, will offer a lower expected rate of return than those which carry high risk such as common stock of a new, unproven company.

When one formulates an investment plan, this risk-return trade-off is an important consideration. In determining the level of expected return one wishes to receive, he will also be determining the level of risk which one will have to accept. Conversely, in accepting a certain level of risk in designing a portfolio, the level of expected return is also get determined. It may be difficult to quantify these levels, but one would at least have to think on a relative basis; that is, a low, medium, or high degree of risk.

Conclusion

The above listed are some of the considerations which financial analyst has to keep in mind while making and managing a portfolio for an individual. Mere application of computer software programme on portfolio management would not be of much help. Financial analysts have to be a combination of computer expert and financial wizard with understanding of an individual behaviour and his needs.

At present, portfolio management is loosely practiced, very soon it would be practiced in a systematic way. With increasing sophistication and competitiveness of the portfolio management community, only managers with solid grounding in dynamic, systematic, decision making process will be able to adapt, master or thrive in such an aggressively changing and competitive environment. The portfolio manager's reaction will need to be increasingly swift and decisive to changes in economy and market expectations.