B.Com II, Sem IV, Capital Market Paper – II	
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2.1. Risk- Definition, Types of Investment Risk

All investments involve some degree of risk. Although most people think of risk only in terms of loss, risk is the chance that an investment may decrease or increase in value from what is expected. Simply put, risk is a measure of how much an investment's actual return differs from what the investment is expected to return. Riskier investments come with the potential to earn higher returns, while less risky investments generally have lower returns.

Risk Tolerance

Investment risk is not just a mathematical calculation. Each investor has their own level of risk they're willing to take on. This is known as risk tolerance. Risk tolerance may be based on things such as your age, family or financial situation, your emotions, and your financial goals.

It is important to keep your investment professional up to date on any changes to your situation (for example changing jobs, having a baby, or a change in your marital status) that may impact how much risk you are willing and able to take on.

Types of investment risk

1. Market risk

The risk of investments declining in value because of economic developments or other events that affect the entire market. The main types of market risk are equity risk, interest rate risk and currency risk.

- **Equity risk** – applies to an investment in shares. The market price of shares varies all the time depending on demand and supply. Equity risk is the risk of loss because of a drop in the market price of shares.
- **Interest rate risk** – applies to debt investments such as bonds. It is the risk of losing money because of a change in the interest rate. For example, if the interest rate goes up, the market value of bonds will drop.
- **Currency risk** – applies when you own foreign investments. It is the risk of losing money because of a movement in the exchange rate. For example, if the U.S. dollar becomes less valuable relative to the Canadian dollar, your U.S. stocks will be worth less in Canadian dollars.

2. Liquidity risk

The risk of being unable to sell your investment at a fair price and get your money out when you want to. To sell the investment, you may need to accept a lower price. In some cases, such as exempt market investments, it may not be possible to sell the investment at all.

3. Concentration risk

The risk of loss because your money is concentrated in 1 investment or type of investment. When you diversify your investments, you spread the risk over different types of investments, industries and geographic locations.

4. Credit risk

The risk that the government entity or company that issued the bond will run into financial difficulties and won't be able to pay the interest or repay the principal at maturity. Credit risk applies to debt investments such as bonds. You can evaluate credit risk by looking at the credit rating of the bond. For example, long-term Canadian government bonds have a credit rating of AAA, which indicates the lowest possible credit risk.

5. Reinvestment risk

The risk of loss from reinvesting principal or income at a lower interest rate. Suppose you buy a bond paying 5%. Reinvestment risk will affect you if interest rates drop and you have to reinvest the regular interest payments at 4%. Reinvestment risk will also apply if the bond matures and you have to reinvest the principal at less than 5%. Reinvestment risk will not apply if you intend to spend the regular interest payments or the principal at maturity.

6. Inflation risk

The risk of a loss in your purchasing power because the value of your investments does not keep up with inflation. Inflation erodes the purchasing power of money over time – the same amount of money will buy fewer goods and services. Inflation risk is particularly relevant if you own cash or debt investments like bonds. Shares offer some protection against inflation because most companies can increase the prices they charge to their customers. Share prices should therefore rise in line with inflation. Real estate also offers some protection because landlords can increase rents over time.

7. Horizon risk

The risk that your investment horizon may be shortened because of an unforeseen event, for example, the loss of your job. This may force you to sell investments that you were expecting to hold for the long term. If you must sell at a time when the markets are down, you may lose money.

8. Longevity risk

The risk of outliving your savings. This risk is particularly relevant for people who are retired, or are nearing retirement.

9. Foreign investment risk

The risk of loss when investing in foreign countries. When you buy foreign investments, for example, the shares of companies in emerging markets, you face risks that do not exist in Canada, for example, the risk of nationalization.

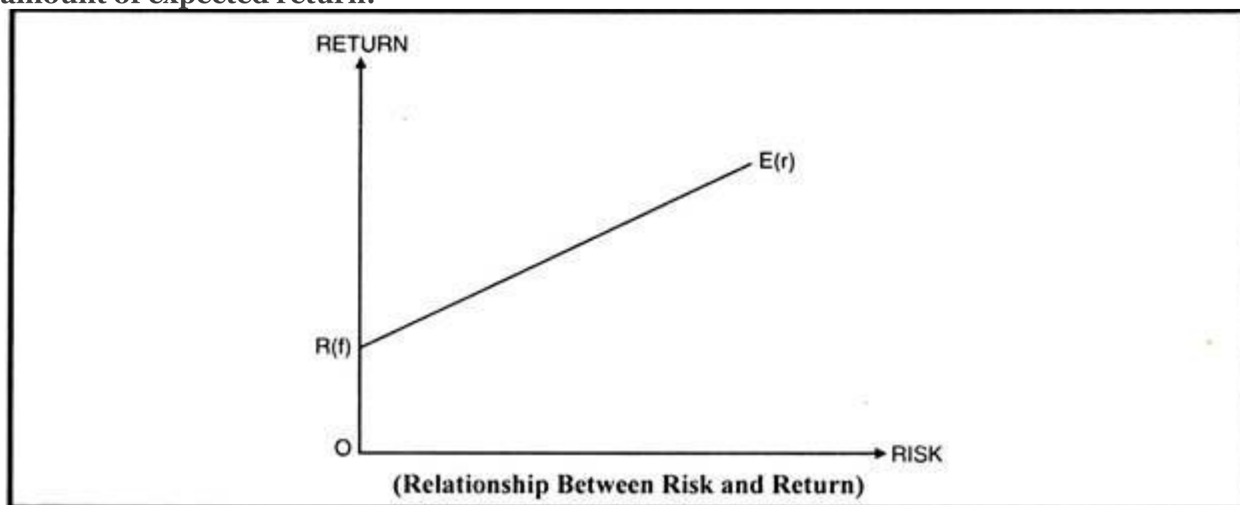
2.2 Risk and Expected Return

There is a positive relationship between the amount of risk assumed and the amount of expected return. Greater the risk, the larger the expected return and the larger the chances of substantial loss.

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 equity stock of a new company. A rational investor would have some degree of risk aversion, he would accept the risk only if he is adequately compensated for it.

One of the most difficult problems 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 following figure shows the relationship between the amount of risk assumed and the amount of expected return:



(Relationship Between Risk and Return)

Risk is measured along the x-axis and return is measured along vertical axis. Risk increases from left to right and return rises from bottom to top. The line from O to R(f) indicates the rate of return on risk less investments.

The diagonal line from R(f) to E(r) illustrates the concept of expected rate of return increasing shows a linear relationship between risk and return, but it need not be linear. In developing countries like ours, with administered interest rates and many other restrictive regulations, this linear relationship generally does not hold.

2.3 Portfolio Diversification
The fundamental purpose of portfolio diversification is to minimize the risk on your investments; specifically unsystematic risk.
Unsystematic risk—also known as specific risk—is risk that is related to a specific company or market segment. By diversifying your portfolio, this is the risk you hope to cut. This way, all your investments would not be uniformly affected in the same way by market events.

How to diversify your portfolio?

Portfolio diversification is of the core tenets of investing and is crucial for better risk management. There are many benefits of diversification. However, it must be done with caution. Here's how you can effectively diversify your portfolio:

1. **Spread out your investments**

Investing in equities is good but that doesn't mean you should put all your wealth in a single stock or a single sector. The same applies to your investments in other options like Fixed Deposits, Mutual Funds or gold too.

For instance, you might invest in six stocks. But if the whole market suddenly takes a tumble, you could have a problem. This problem is compounded if the stocks belonged to the same sector like manufacturing. This is because any news item or information that affects the performance of one manufacturing stock could as well affect the other stocks in some way or other.

So, even if you choose the same asset, you can diversify by investing in different sectors and industries. There are so many different industries and sectors to explore with exciting opportunities like pharmaceuticals, Information Technology (IT), consumer goods, mining, aeronautics, energy and so on.

2. **Explore other investment avenues**

You could also add other investment options and assets to your portfolio. Mutual funds, bonds, real estate and pension plans are other investments you can consider. Also, make sure that the securities vary in risk and follow different market trends.

It has been generally observed that the bond and equity markets have contrasting movements. So, by investing in both these avenues, you can offset any negative results in one market by positive movements in the other. This way, you can ensure that you are not in a lose-lose situation.

3. **Consider Index or Bond Funds**

A sound diversification strategy, adding Index or bond funds to the mix provides your portfolio with the much-needed stability. Also, investing in Index funds is highly cost-effective as the charges are quite low compared to actively managed funds.

At the same time, investing in bond funds hedges your portfolio from market volatility and uncertainty and prevents gains from being wiped out during market volatility.

4. **Keep Building Your Portfolio**

This is another portfolio diversification strategy. You need to keep building your portfolio by investing in different asset classes, spreading across equities, debt and fixed-return instruments. Adopting this approach helps you better ride volatility.

Also, if you are investing in mutual funds, adopting the SIP route is advisable as it helps you stay invested across market cycles and gain from the concept of rupee cost averaging.

5. **Know When to Get Out**

Portfolio diversification also entails knowing the time when you must exit your investments. If the asset class you have been investing hasn't performed up to the mark for a long period and if there have been any changes in its fundamental structure that don't align with your goals and risk appetite, then you must exit.

Also, note that if you have invested in any market-linked instrument, then don't exit following short-term volatility.

6. **Keep an Eye on Commissions**

This is another crucial thing to watch out for. If you are taking services of a professional, check out the fees you are paying in lieu of the services availed.

This is essential because commissions can ultimately take a toll on the end returns. A high commission can eat away into your gains.

Pros and Cons of Diversification

Now that you know the different portfolio diversification strategies let's look at its advantages and disadvantages.

Advantages of Diversification

1. **Makes Your Portfolio Better Shock-Proof**

This is one of the major benefits of diversification. A well-diversified portfolio can better absorb the shocks during a market downturn. The risk is well-spread out when you invest in different asset classes.

Also, non-performance of one asset class is made up for by a different asset class. Simply put, with a well-diversified portfolio, you can contain the losses in a better manner.

2. **Better Weather Market Cycles**

Every economy goes through a cycle. During a cycle, markets move up, become stagnant, comes down and goes up again. With portfolio diversification, you can better weather market cycles and gain from its bullish run.

Also, following a crash when markets move up, it helps you gain from the rally. This is not the case, however, with a non-diversified portfolio that's concentrated towards one asset class.

3. **Enhance Risk-Adjusted** Returns

This is another significant benefit of portfolio diversification. When two portfolios yield the same returns, a diversified one will take lesser risk than a concentrated one. The latter will be more volatile than the former.

Hence, for better risk-adjusted returns, it's vital to have a diversified portfolio investing across asset classes.

4. **Leverage Growth Opportunities Present in Other Sectors**

When you invest across different assets in different sectors, you can leverage the growth opportunity present in them. For instance, of late gold has given spectacular returns and those having an exposure to the yellow metal have made quite significant gains.

Markets often see a cycle when one sector outperforms the other, and only when you have the exposure to this sector, you can take its advantage.

5. **Provides Stability and Peace of Mind**

Another significant advantage of diversification strategy is that it gives your portfolio the much-needed stability and peace of mind as you know, it can better combat a downturn. With a more predictable return, it cuts out the emotional quotient from investments, essential for achieving the desired goal.

Disadvantages of Diversification

1. **Go Overboard**

Sometimes in the name of portfolio diversification, investors tend to go overboard and end up investing in too many assets that they don't even require.

For instance, often investors end up investing in too many equity funds holding the same stocks. This makes the portfolio bloated and dilutes returns.

2. **Tax Complications**

This is another major disadvantage of diversification. The tax structure differs across asset classes, and buying and selling them can lead to major complications. For example, taxation structure of equity mutual funds are different from debt funds. Similarly, income from bank FDs is taxed differently from that of real estate.

Hence, you need to be aware of the various tax structure while investing in different asset classes.

3. **Risk of Investing in an Unknown Asset**

Sometimes, in the name of diversification, you can end up investing in an asset that's unknown to you. You may get caught off guard if investing in that asset isn't legal in the country. Also,

investing in an unknown asset may result in losing capital in the long run, which brings down returns of your overall portfolio.

4. **Can Make Investments Complicated**

When you diversify too much, it can complicate investments. Before proceeding, you need to understand the structure and working of the asset class, and this can be a task too much.

On the other hand, when you invest in only a few asset classes, complications tend to be on the lower side.

5. **Missed Windfalls**

Another disadvantage of portfolio diversification is that if a single sector witnesses a spike, you can miss out on leveraging complete gains from it.

Often in the past, investors have regretted that only a small percentage of their holdings have made profits. Having said that, it's pretty difficult to predict as to when that will happen to an asset class.

***Diversification doesn't mean that you don't face any losses. After the entire process, it is still possible to lose some money when you invest. After all, it is not possible to eliminate risk completely. However, diversification helps you to lower the risk of losses in the market to the minimum possible*.**

2.4 Stock Market Efficiency –Types

The efficient market hypothesis posits that the market cannot be beaten because it incorporates all important information into current share prices, so stocks trade at the fairest value.

Weak Form

The three versions of the efficient market hypothesis are varying degrees of the same basic theory. The weak form suggests that today's stock prices reflect all the data of past prices and that no form of technical analysis can be effectively utilized to aid investors in making trading decisions.

Advocates for the weak form efficiency theory believe that if the fundamental analysis is used, undervalued and overvalued stocks can be determined, and investors can research companies' financial statements to increase their chances of making higher-than-market-average profits.

Semi-Strong Form

The semi-strong form efficiency theory follows the belief that because all information that is public is used in the calculation of a stock's current price, investors cannot utilize either technical or fundamental analysis to gain higher returns in the market.

Those who subscribe to this version of the theory believe that only information that is not readily available to the public can help investors boost their returns to a performance level above that of the general market.

Strong Form

The strong form version of the efficient market hypothesis states that all information—both the information available to the public and any information not publicly known—is completely accounted for in current stock prices, and there is no type of information that can give an investor an advantage on the market.

Advocates for this degree of the theory suggest that investors cannot make returns on investments that exceed normal market returns, regardless of information retrieved or research conducted.