Finsearch

Mid Term Report

Team : A8 (Asset Diggers)

Member 1: Parinay Dewangan (22B1286)

Member 2: Preksha Jain (22B2450)

Member 3: Tarun Kumar (22B2108)

Member 4: Jayesh Ahire (22B2101)

Assets and Indices

❖ Fixed Deposit

In India, Fixed Deposits are one of the most popular ways to save money. They are a safe investment, offer good returns, and are easy to open.

What exactly is a Fixed Deposit? In a Fixed Deposit, you put a lump sum in your bank for a fixed tenure at an agreed rate of interest. At the end of the tenure, you receive the amount you have invested plus compound interest. FDs are also called term deposits.

Interest rates Interest rates on FDs are fixed when you open the deposit and the rate depends on the term that you wish to hold it for. Visit the HDFC Bank website to view the latest FD interest rates.

Secure investment A Fixed Deposit offers guaranteed returns. Unlike market-led investments where returns fluctuate over time, the returns on an FD are fixed when you open the account. Even if interest rates fall after you open a Fixed Deposit, you will continue to receive the interest decided at the start. FDs are considered much safer than investments in other assets like equity.

Return on investment Your return on an FD will depend on the interest rate and the type of deposit you choose. You can opt for a monthly or quarterly pay-out of interest or the reinvestment option, which will give you the benefit of compounding.

Loan against FD While FDs are fixed for an agreed tenure, you can take a loan against it when you need funds. HDFC Bank offers loans against FD in the form of an overdraft, and you can get up to 90% of your FD amount. The benefit is that your FD continues to earn interest, you don't have to prematurely withdraw your FD, and end up paying a penalty.

❖ Gold

Gold investment is a popular and age-old way for individuals to preserve wealth and diversify their investment portfolios. Gold is considered a safe-haven asset, known for its ability to retain value during economic uncertainty and geopolitical turmoil.

Investors can choose various forms of gold investment, such as physical gold (jewelry, coins, bars), gold ETFs (Exchange-Traded Funds), gold mutual funds, and sovereign gold bonds (SGBs). While physical gold offers tangible ownership, financial instruments like gold ETFs and SGBs provide convenience and liquidity for trading on stock exchanges. Unlike stocks and bonds, gold does not provide regular income in the form of interest and dividends, but it can provide excellent liquidity and beat inflation.

- How to invest in Gold? There is a wide variety of options for investors who want exposure to gold. It's possible to invest directly in gold bullion, although the costs of storing and insuring physical gold can be significant.

  Investors also can turn to exchange-traded funds (ETFs) that hold the precious metal or purchase shares of mining companies whose stock prices are correlated to gold's price performance.

- Physical Gold: Investors can purchase physical gold in the form of jewelry, coins, or bars. This traditional approach provides tangible ownership and a sense of security, as it is not dependent on any financial institution. Physical gold can be held for the long term or used for personal adornment or gifting. However, storage and security costs must be taken into account.

- **Gold ETFs and Mutual Funds:** Exchange-Traded Funds (ETFs) and mutual funds offer an efficient and liquid way to invest in gold without the burden of physical possession. These financial instruments track the performance of gold prices and provide exposure to the precious metal through shares traded on stock exchanges. Gold ETFs and mutual funds offer diversification and accessibility for investors with smaller budgets.
- **Sovereign Gold Bonds (SGBs):** Sovereign Gold Bonds are issued by the Government of India and offer investors a secure and tax-efficient way to invest in gold. SGBs have fixed interest rates and provide capital appreciation linked to gold prices. At maturity, investors receive the equivalent of the prevailing gold price in cash. SGBs also offer periodic interest payments, making them an attractive option for long-term investors seeking steady income.

- **The Bottom Line:** Gold has held a special place in the human imagination since the beginning of recorded time. From an investment perspective, gold is attractive because of its potential to remain strong in difficult financial environments and to hedge against inflationary declines in the value of fiat currencies.

  Although the U.S. dollar and other world currencies are no longer pegged to gold—as was the case when many countries operated under the gold standard—the precious metal continues to play an important role in the global economy.

❖ Bonds

Bonds are debt instruments issued by governments, corporations, or financial institutions to raise funds. They provide fixed income to investors in the form of periodic interest payments.

Types of bonds include government bonds (*such as Treasury Bills and Government Securities*), corporate bonds, municipal bonds, and debentures. Each type varies in terms of issuer, risk profile, and purpose. Bondholders receive interest payments until maturity when the principal amount is returned. Bonds can be traded in the secondary market.

- Government Bonds : Government bonds are debt securities issued by governments to raise funds. They offer a fixed interest rate, providing investors with stable income over the bond's duration. Government bonds have varying maturity periods, accommodating both short-term and long-term investment strategies. Taxation on government bonds depends on the investor's income tax slab, with interest income subject to taxation. These bonds are considered relatively low-risk investments due to the backing of the government, resulting in higher credit ratings. However, they still carry interest rate risk and inflation risk, which can impact their market value.
- Corporate Bonds : Corporate bonds are debt securities issued by corporations to raise capital. They offer investors a fixed or floating interest rate, providing a steady income stream. However, they carry risks such as credit risk, liquidity risk, and interest rate risk. The credit rating of corporate bonds

reflects the issuer's creditworthiness, influencing the level of risk associated with the investment. Taxation on corporate bonds depends on the investor's income tax slab, with interest income subject to taxation. These bonds are actively traded in the secondary market, allowing investors to buy and sell them before maturity. Yield on corporate bonds represents the effective rate of return based on the bond's current price and coupon payments.

- Municipal Bonds : Municipal bonds are debt securities issued by local government bodies to finance infrastructure projects or other development projects. They offer investors a fixed interest rate determined at the time of issuance. Municipal bonds carry risks, including credit risk, which is influenced by the financial health of the municipality. They often enjoy tax advantages, with interest income generally exempt from federal taxes and sometimes from state and local taxes. Maturity periods for municipal bonds vary, typically ranging from a few years to several years.
- Debentures : Debentures are debt instruments issued by corporations or governments, offering a fixed or floating interest rate. They have varying maturity periods, typically ranging from 1 year to 10 years or more. They carry credit risk, interest rate risk, and liquidity risk, similar to corporate bonds. Interest income earned from debentures is taxable as per the investor's income tax slab. Debentures are traded in the secondary market, but liquidity and trading volumes may vary depending on the specific debenture. They are assigned credit ratings that reflect the issuer's creditworthiness.

❖ Stocks

A stock, also known as equity, is a security that represents the ownership of a fraction of the issuing corporation. Units of stock are called "shares" which entitles the owner to a proportion of the corporation's assets and profits equal to how much stock they own.

Stocks are bought and sold predominantly on stock exchanges and are the foundation of many individual investors' portfolios. Most often, stocks are bought and sold on stock exchanges, such as the National Stock Exchange (NSE) or the Bombay Stock Exchange (BSE). After a company goes public through an initial public offering (IPO), its stock becomes available for investors to buy and sell on an exchange. The price of the stock is influenced by supply and demand factors in the market, among other variables.

Corporations issue stock to raise funds to operate their businesses and the holder of stock, a shareholder, may have a claim to part of the company's assets and earnings. A shareholder is considered an owner of the issuing company, determined by the number of shares an investor owns relative to the number of outstanding shares.

If a company has 1,000 shares of stock outstanding and one person owns 100 shares, that person would own and have a claim to 10% of the company's assets and earnings.

Stockholders do not own a corporation but corporations are a special type of organization because the law treats them as legal persons. Corporations file taxes. can borrow, can own property, and can be sued. The idea that a corporation is a “person” means that the corporation owns its assets. A corporate office full of chairs and tables belongs to the corporation, and not to the shareholders.

How Can You Earn Income From Owning Stock? There are two ways to earn money by owning shares of stock is through dividends and capital appreciation. Dividends are cash distributions of company profits. If a company has 1,000 shares outstanding and declares a $5,000 dividend, then stockholders will get $5 for each share they own. Capital appreciation is the increase in the share price itself. If you sell a share to someone for $10, and the stock is later worth $11, the shareholder has made $1.

How Do You Buy Stock? Most often, stocks are bought and sold on stock exchanges, such as the Nasdaq or the New York Stock Exchange (NYSE). After a company goes public through an initial public offering (IPO), its stock becomes available for investors to buy and sell on an exchange. Typically, investors will use a brokerage account to purchase stock on the exchange, which will list the purchasing price (the bid) or the selling price (the offer). The price of the stock is influenced by supply and demand factors in the market, among other variables.

Is It Risky to Own Stock? All investments have a degree of risk. Stocks can lose value if market conditions decline. When you invest, you make choices about what to do with your financial assets. Your investment value might rise or fall because of market conditions or corporate decisions, such as whether to expand into a new area of business or merge with another company. Historically, stocks have outperformed most other investments over the long run.

The Bottom Line A stock represents fractional ownership of equity in an organization. It is different from a bond, which operates like a loan made by creditors to the company in return for periodic payments. A company issues stock to raise capital from investors for new projects or to expand its business operations. The type of stock, common or preferred, held by a shareholder determines the rights and benefits of ownership.

❖ Nifty 50

In finance, a stock market index is an index that measures the performance of a stock market, or of a subset of a stock market. Stock market indices may be categorized by their index weight methodology, or the rules on how stocks are allocated in the index, independent of its stock coverage.

The NIFTY 50 is a benchmark Indian stock market index that represents the weighted average of 50 of the largest Indian companies by market capitalisation listed on the National Stock Exchange (NSE). The NIFTY 50 index covers 13 sectors of the Indian economy and offers investment managers exposure to the Indian market in one portfolio.

Investing in the NIFTY 50 Index is a good opportunity to create wealth over the long term. The index has compounded at 11% since inception. The Nifty 50 index is extremely popular among investors. The Nifty 50 index can be considered good for new investors for several reasons :

- Diversification – By investing in the Nifty 50, new investors get exposure to a diversified portfolio of leading companies across industries. This diversification can help spread the risk and reduce the impact of adverse events affecting individual companies.
- Benchmark – The Nifty 50 is one of the most widely followed equity indices in India and serves as a benchmark for the overall performance of the Indian stock market. For new investor, using the Nifty 50 as a benchmark can help them gauge their own investment performance against the broader market.

- Ease of Investment – Instead of buying individual stocks of all 50 companies in the index, investors can opt for index funds or exchange-traded funds (ETFs) that replicate the performance of the Nifty 50. These funds are readily available and can be purchased like regular stocks, making it convenient for new investors to invest in a diversified basket of stocks.
- Transparency – The Nifty 50 is a transparent index, and its constituents are publicly available. Investors can easily access information about the companies included in the index and their relative weights.

How to Invest in Nifty 50?

1. Buy individual stocks : Investors can buy stocks in the same allocation as the Nifty 50 index. But the problem with this method of investing in Nifty 50 is the availability of capital. Retail investors might not have such high investible corpus. Additionally, tracking and managing 50 stocks can get tedious.
2. Trade in Nifty Futures & Options (F&O) : Investors with limited cash can also invest in futures and options contract with Nifty 50 as the underlying asset. But not all investors are comfortable with F&O segment.
3. Investing in Nifty ETF's : This is probably one the best ways to invest in Nifty 50. With Nifty ETFs, investors can get exposure to the Nifty 50 index at a fraction of the cost. You can get the same exposure with Nifty ETFs.
4. Investing in Nifty Index Funds : For retail investors, this is the best way of investing in Nifty 50 index. Index mutual funds are passively managed and their aim is to mirror or copy a benchmark, in this case Nifty 50. Availability of capital is also not an issue as Investors can invest in index mutual funds with as little as Rs 500 per month via a Systematic Investment Plan (SIP). Investors are also free to hold their index fund units for long-term as there is no settlement date in index mutual funds

❖ Cash

Cash is the amount of actual money a business/individual has at its disposal. It is classified on the balance sheet as a current asset, meaning it is likely to be used within the next 12 months, and is usually held in bank accounts.

Cash and cash equivalents are highly liquid financial asset types that are quickly convertible into cash without significant risk of loss in value. Examples include cash balances, bank balances, cheques received from parties but not yet cleared by the bank, commercial paper, and so on. Cash has the highest liquidity of all assets because cash does not have to be converted into another form to be used, and is therefore highly valued.

In economic theory (according Keynesian economics), the cash holding of cash (especially sight deposits) is roughly attributed to three motives :

- Transactions motive
- Precautionary motive
- Speculative motive.

The Transactions motive covers the business needs of economic subjects, the Precautionary motive serves to hold money for liquidity purposes and to provide for crisis situations, and the Speculation motive, according to John Maynard Keynes, results from the uncertainty about future interest rate developments and relates to financial investments.

Individuals and organizations consider cash an essential asset because it can be easily exchanged for goods, services, and other assets. As an asset, cash has several characteristics and advantages.

- Liquidity : Cash is the most liquid asset since it can be readily used to make payments or investments without any conversion process.
- Value stability : Unlike some other assets, the value of cash is relatively stable and generally maintains its purchasing power over time. However, inflation can erode the value of cash over the long term.
- Universal acceptance : Cash is widely accepted as a medium of exchange, making it a universally recognized and trusted form of payment.
- Diversification : Holding cash can provide a buffer during financial emergencies or market downturns. It allows individuals or organizations to have readily available funds for unexpected expenses or investment opportunities.
- Flexibility : Cash offers flexibility in decision-making, as it can be easily used for various purposes, such as paying bills, making purchases, or investing in different assets.

Inflation can also erode cash's purchasing power over time. In order to optimize their financial position, individuals and organizations often balance their cash holdings with other investments.

Capital Asset Pricing Model

The Capital Asset Pricing Model (CAPM) is an idealized portrayal of how financial markets price securities and thereby determine expected returns on capital investments. The model describes the relationship between systematic risk, or the general perils of investing, and expected return for assets, particularly stocks.

It is a finance model that establishes a linear relationship between the required return on investment and risk. The model is based on the relationship between an asset's beta β_i, the risk-free rate R_f (typically the Treasury bill rate), and the equity risk premium, or the expected return on the market $E(R_m)$ minus the risk-free rate.

CAPM evolved as a way to measure this systematic risk. It is widely used throughout finance for pricing risky securities and generating expected returns for assets, given the risk of those assets and the cost of capital.

The formula for the CAPM is as follows:

$$\boxed{E(R_i) = R_f + \beta_i \times (E(R_m) - R_f)}$$

Where:

- $E(R_i)$ is the expected return of the asset (security or portfolio).
- R_f is the risk-free rate, representing the return of a theoretically risk-free investment like government bonds.

- β_i is the beta of the asset, which measures its sensitivity to market movements and systematic risk.
- $E(R_m)$ is the expected return of the overall market.

Modern financial theory rests on two assumptions: (1) securities markets are very competitive and efficient (that is, relevant information about the companies is quickly and universally distributed and absorbed); (2) these markets are dominated by rational, risk-averse investors, who seek to maximize satisfaction from returns on their investments.

The first assumption presumes a financial market populated by highly sophisticated, well-informed buyers and sellers. The second assumption describes investors who care about wealth and prefer more to less.

Systematic and Unsystematic Risk – CAPM distinguishes between two types of risks that affect an asset's return. Systematic risk, also known as market risk, is the risk that is inherent in the overall market and cannot be diversified away. Unsystematic risk, also called specific risk or diversifiable risk, is unique to individual assets and can be reduced through diversification within a well-constructed portfolio. (No measure of unsystematic risk appears in the risk premium for in the world of CAPM diversification has eliminated it.)

Let’s take a look at the various terminologies used..

1. Risk-Free Rate : The risk-free rate, denoted as R_f , represents the return an investor can earn on a risk-free investment, typically considered government bonds. It is an essential benchmark in the CAPM as it reflects the rate of return investors would require with no exposure to market risk.
2. Market Risk Premium : The market risk premium $(E(R_m) - R_f)$ is the additional return investors expect to earn by taking on the risk of investing in the overall market, as opposed to a risk-free asset. It represents the compensation for bearing systematic risk. Here, $E(R_m)$ represents the expected return on the market as a whole.
3. Beta (β) : Beta is the standard CAPM measure of systematic risk. It measures the sensitivity of an asset's returns to market movements. It gauges the tendency of the return of a security to move in parallel with the return of the market as a whole. A beta greater than 1 indicates the asset is more volatile than the market, while a beta less than 1 implies lower volatility. A beta of 1 signifies the asset moves in line with the market.
4. Security Market Line (SML) : The SML is a graphical representation of the CAPM equation. It plots the expected return of various assets on the y-axis against their beta on the x-axis. The SML's slope is the market risk premium, indicating the additional expected return for each additional unit of beta.

Example : Expected return on a stock

Risk-free rate (say Treasury Bill rate), R_f = 3%

Expected return of the market as a whole, $E(R_m)$ = 8%

Let for some hypothetical stock ABC, $\beta_i = 1.2$

Now, Market risk premium = $E(R_m) - R_f$ = *8% - 3% = 5%*

So, by the formula for CAPM :

Expected return of the Stock, $E(R_i) = R_f + \beta_i \times (E(R_m) - R_f) = 3\% + 1.2 \times 5\% = 9\%$