

## Module 1

### Overview of Indian Financial system, Financial Instruments, Financial Markets, Financial Institutions

#### Financial Instruments

- It is assets that can be traded
- It is a real or virtual document representing a legal agreement involving any kind of monetary value.
- There are typically 3 types of financial instruments.

##### ① Cash instruments

##### ② Derivative instruments

##### ③ Foreign Exchange Instruments

##### ① Cash instruments

- It is a financial instrument which value is directly influenced by the condition of the markets.
- There are 2 types in cash instruments.

##### ② Securities

- It is a financial instrument that has monetary value and is traded on the stock market.
- When purchased or traded, a security represents ownership of a part of a publicly traded company on the stock exchange.

##### ⑥ Deposits and Loans

- Both deposits and loans are considered cash instruments because they represent monetary assets that have some sort of contractual agreement between parties.

##### ② Derivative instruments

- It is a financial instrument whose value is determined by an underlying asset such as currency, bonds, stocks,
- Examples of derivative instruments.

##### ④ Synthetic Agreement for Foreign Exchange (SAFE)

- A SAFE occurs in Over-The-Counter (OTC) market.
- It is an agreement that guarantees specified exchange rate during an agreed period of time.

##### ⑥ Forward

- It is a contract between two parties that involves customizable derivatives in which the exchange occurs at the end of a contract at a specified price.

##### ④ Future

- It is a derivative transaction that provide the exchange of derivative on a determined future date at a predefined exchange rate.

##### ⑤ Options

- It is an agreement between two parties in which seller grants the buyer the right to purchase or sell a certain number of derivative at a predefined price for a specific period of time.

##### ⑥ Interest Rate Swap

- It is an agreement between two parties that involves the swapping of interest rate where each party agrees to pay other interest rates on their loans in different currencies.

##### ③ Foreign Exchange Instrument

- It is a financial instrument that is represented on the foreign market and primarily consists of currency agreement and derivatives.

- Currency agreement is broken into three categories.

##### ④ Spot

- It is a currency agreement where currency exchange is done on spot.

##### ⑤ Outright Forwards

- It is a currency agreement in which the actual exchange of currency is done "forwardly" and before the actual date of agreed requirement.

##### ⑥ Currency swap

- It refers to the act of simultaneously buying and selling currencies with different specified value dates.

## Financial Institution

- It is a company engaged in the business of dealing with financial and monetary transactions such as deposits, loans, investments and currency exchange.
- Financial institutions deals with a broad range of business operations within the financial services sector including banks, trust companies, insurance companies, brokerage firms and investment dealers.
- Financial institutions serve most people in some way, as financial operations are a critical part of any economy with individuals and companies relying on financial institutions for transactions and investing.

### Types of financial institutions

#### ① Commercial Banks

- It is a type of financial institution that accepts deposits, offers checking account services, makes business, personal and mortgage loans and offers basic financial products like Certificate of Deposit (CD) and savings account to individual and small businesses.
- A commercial bank is where most people do their banking as opposed to an investment bank.

#### ② Investment Banks

- It specializes in providing services designed to facilitate business operations such as capital expenditure financing and equity offering including IPO.
- They also commonly offer brokerage services for investors act as market makers for trading exchange and manage mergers, acquisition and other corporate restructuring.

#### ③ Insurance Companies

- It provides insurance for individuals and corporations.
- It provides protection of assets and protection against financial risk, secured through insurance products.

#### ④ Brokerage Firms

- Investment companies and brokers such as Mutual Fund and ETFs Exchange Traded Funds provider Fidelity Investments, specialize in providing investment services that include wealth management and financial advisory services.
- They also provide access to investment products that may range from stocks and bonds to hedge funds and private equity investments.

## Money Market

- It is a financial market where short term financial assets having liquidity of one year or less are traded on stock exchanges.

### Types of money market instruments

#### ① Treasury Bills (T-Bills)

- T-Bills are issued by the RBI on behalf of the central government for raising money.
- They have short term maturity with highest upto one year.
- T-Bills are issued with 3 different maturity periods
  - Ⓐ 91 days T-Bills
  - Ⓑ 182 days T-Bills
  - Ⓒ 1 year T-Bills
- T-Bills are issued at a discount to the face value
- At maturity, investor gets the face value amount.
- The difference between the initial value and face value is the return earned by an investor.
- It is the safest short term fixed income investment as it is backed by the Government of India.

#### ② Commercial Papers (CPs)

- Large companies and businesses issue promissory notes to raise capital to meet short term business needs known as Commercial Paper(CPs)
- These firms have high credit rating
- Commercial Papers are unsecured, company's credibility acts as a security for this financial instrument.
- Corporates, Primary Dealers (PDs) and All-India Financial Institutions can issue CPs.
- CPs have a fixed maturity period ranging from 7 days to 270 days.
- Investors can trade this instrument in secondary market.
- It offers comparatively higher returns than T-Bills.

#### ③ Certificates of Deposit (CDs)

- CDs are financial assets issued by banks and financial institutions
- They offer fixed interest rate on the investment amount.
- The primary difference between CDs and Fixed Deposits is that of value of principal amount. that can be invested.
- CDs are issued for large sum of money (1 lakh or in multiple of 1 lakh)
- The maturity period of CDs ranges from 7 days to 1 year, if issued by banks.
- Other financial institutions can issue a CD with maturity ranging from 1 year to 3 years.

#### ④ Repurchase Agreements

- Also known as Repos or buybacks
- It is a formal agreement between two parties where one party sells a security to another, with the promise of buying it back at a later date from the buyer.
- Also called a sell-buy transaction.

#### ⑤ Banker's Acceptance

- A financial instrument produced by an individual or a corporation, in the name of the bank is known as Banker's acceptance.
- It requires the issuer to pay the instrument holder a specified amount on a predetermined date which ranges from 30 to 180 days starting from the date of issue of the instrument.
- It is a secure financial instrument as the payment is guaranteed by a commercial bank.

## Financial Services

- ① Banking
- ② Professional Advisory
- ③ Wealth Management
- ④ Mutual Funds
- ⑤ Insurance
- ⑥ Stock Market
- ⑦ Treasury / Debt Instrument
- ⑧ Tax / Audit Consulting
- ⑨ Capital Restructuring
- ⑩ Portfolio Management

### ① Banking

- It is the backbone of India's financial services industry.
- The country has several public sector, private sector, foreign, regional, rural, urban rural, cooperative banks.
- The financial services offered are:
  - (a) Individual Banking (current/savings account, debit/credit cards etc.)
  - (b) Business Banking (merchant services)
  - (c) Loans (Personal, Business, home, automobile, education loans).
- It is regulated by RBI.

### ② Professional Advisory

- India has a strong presence of professional financial advisory services providers which offer individual and businesses a wide portfolio of services, including investment due diligence, valuation, real-estate consulting, risk consulting, tax consulting etc.

### ③ Wealth management

- Financial services offered are: managing and investing customer's wealth across various financial instruments including debt, equity, mutual funds, insurance products, derivatives, structured products, real estate based on client's financial goals, risk profile.

- ④ Mutual Funds
- Mutual funds service provider offer investment services across funds that are composed of different assets classes. (debt + equity).
  - It is popular as it has lower risk, tax benefits, stable returns and low ticket size.
  - Mutual Fund segment witnessed double digit growth in last 5 years.

### ⑤ Insurance

- Primarily it is of two categories:
- (a) General insurance (automotive, home, medical, fire, travel, etc.)
- (b) Life insurance (term life, money back, pension plans, etc.).

### ⑥ Stock Market

- This segment includes investment solutions across various equity-linked products.
- Returns are based on capital appreciation.
- Dividend payouts

### ⑦ Treasury / Debt instrument

- Services offered in this segment includes investment into government and corporate bonds.
- Issuer of bond offers fixed interest and principal repayment at the end of maturity.

### ⑧ Tax - Audit Consulting

- It provides services:
- (a) Tax - Individual (determining tax liability, filing tax returns, tax savings advisory, etc.)

### ⑨ Tax - Business (determining tax liability, GST registration, tax compliance advisory, etc.)

### ⑩ Capital Restructuring

- It involves restructuring of capital structure (debt + equity) to increase profit and reduce risk.

### ⑪ Portfolio Management

- It provides range of solutions as per financial goals and risk appetite to invest in wide variety of assets.
- They mainly target to HNIs.

Content	Equity Instruments	Debt Instruments
Instruments	Derivatives - SAFE (Synthetic Agreement for Foreign Exchange), Forward, Future, Options, Swap, etc.	Commercial Papers (CP's), Certificate of Deposits (CDs), Treasury Bills (T-Bills), Corporate Bonds, Government Securities (G-secs)
Return of Investment	Relatively higher returns compared to debt instruments.	Low to moderate
Risk Appetite	Moderately high to high risk	Low to moderate risk.
Expenses	Comparatively higher expense ratio	Comparatively lower expense ratio
Timings	Timing for trading is very important. as stock market is very dynamic and volatile at times.	Timing for trading is not important. Duration of investment is more important.
Suitability	Suitable for long term investment to achieve long term goals with moderately high risk.	Suitable for long-term or short-term investment. It can be used as alternative for Fixed Deposit.
Taxation	If held for less than 12 months then short term capital gain tax i.e. 15%.  If held for more than 12 months then long term capital gain tax i.e. 10%.  Note: Applicable above profit of 1 lakh. Amount (Profit) above 1 lakh is exempted from tax.	If held for less than 36 months then taxed as per income tax slab.  If held for more than 36 months then taxed at 20%.
Tax Saving Option	Yes, you can save taxes by investing upto Rs 150,000/- in a year in ELSS Mutual Fund.	There is no option to save taxes

## Module 2

### Concepts of Returns and Risks

#### Time Value of Money

##### Risk and Return

- There are unlimited options to make investments in securities of companies.
- This is first challenge for an investor to select or shortlist securities on some parameters.
- The first parameter is risk and return.
- The term return refers to income from a security after a defined period either in the form of interest, dividend or market appreciation in security value.
- On the other hand, risk refers to uncertainty over the future to get this return.
- In simple words, it is a probability of getting return on security.
- A higher probability leads to certainty of occurrence of return and contrary to that low probability means higher chances of not getting return on investments or situation of loss.
- Now, it makes essential for an investor to study risk-return characteristic of every individual security before making investment.
- Therefore, selection or shortlisting of security may be made on the basis of risk and return relationship.
- The term risk refers to possibility of loss or adverse consequences to investment already made, future earnings or present holdings.
- Risk refers to a state when actual outcomes are low as compared to expected outcomes.

Content	Ordinary Annuity	Annuity Due
Payment	Payment relates to period preceding its date.	Payment relates to period following its date.
Present Value	Lower Present Value than Annuity Due.	Higher Present value than Ordinary Annuity.
Example	Retirement accounts, interest from bonds, etc.	Rent, Insurance Premium, etc.
Amount	Payment is bigger as it includes interest of the period.	Payment is comparatively smaller.
Appropriate	Good if one has to make payments.	Good if one has to receive payments.

### Annuity

- It is a contract between you & an insurance company that requires the insurer to make payments to you, either immediately or in the future.
- It helps you to get regular payments for life after making one lump sum payment or a series of installments.
- Accumulation phase is the first phase of annuity, where investors fund the product with either a lump sum or periodic payments.
- Annuities can be structured into different kinds of instruments, which gives investors flexibility.
- These products can be categorized into immediate and deferred annuities and may be structured as fixed or variable.

### Payback Period

#### Advantages

- Formula is straightforward to know and calculate.
- Payback period helps in project evaluation quickly.
- It helps in reducing the risk of losses.

#### Disadvantages

- It doesn't take time value of money into consideration.
- It doesn't consider inflow of cash after payback period.

## Module 3

### Overview of Corporate Finance & Financial Ratio Analysis

#### Corporate Finance

- It is a subfield of finance that deals with how corporations address funding sources, capital structuring, accounting and investment decisions.
- It is concerned with maximizing shareholder value through long and short term financial planning and the implementation of various strategies.
- Corporate finance activities range from capital investment to tax considerations.

#### Decisions in Corporate Finance

- ① Investment Decision
- ② Financing Decision
- ③ Dividend Decision

#### ① Investment Decision

- It is a financial decision which is concerned with how the firm's funds are invested in different assets.
- Investment decision can be long-term or short-term.
- A long term investment decision is called capital budgeting decision which involve huge amounts of long term investments and are irreversible except at a huge cost.
- A short term investment decision is called working capital decision, which affect day to day working of a business. It includes the decisions about the levels of cash, inventory and receivables.
- A bad capital budgeting decision normally has the capacity to severely damage the financial fortune of a business.
- A bad working capital decision affects the liquidity and profitability of a business.

#### ② Financing Decision

- It is a financial decision which is concerned with the amount of finance to be raised from various long term sources of funds like equity shares, preference shares, debentures, bank loans, etc.
- It is a decision on the 'capital structure' of the company.
- Capital Structure Owner's Fund + Borrowed Fund.

#### ③ Dividend Decision

- It is a financial decision which is concerned with deciding how much of the profit earned by the company should be distributed among shareholders (dividend) and how much should be retained for future contingencies (retained earnings) is called dividend decision.
- Dividend refers to that part of profit which is distributed to shareholders.
- The decision regarding dividend should be taken keeping in view the overall objective of maximizing shareholder wealth.

## Financial statements

- It is written record that convey the business activities and the financial performance of a company.
- Financial statements are often audited by government agencies, accountants, firms, etc. to ensure accuracy and for tax, financing or investing purpose.
- Financial statements include:
  - ① Balance sheet
  - ② Profit & Loss Account
  - ③ Cash Flow statement.

### ① Balance Sheet

- A balance sheet is a financial statement that reports a company's assets, liabilities and shareholder equity.
- The balance sheet is one of the three core financial statements that are used to evaluate a business.
- It provides a snapshot of company's finances. (What it owns and owes) as of the date of publication.
- Balance sheet contains:
  - ④ Assets
  - ⑤ Liabilities
  - ⑥ Shareholders' equity

### ② Profit and Loss Statement (P&L)

- It is a financial statement that summarizes the revenues, costs, and expenses incurred during a specified period.
- The P&L statement is one of the three financial statements every public company issues quarterly and annually along with the balance sheet and cash flow statement.
- When used together, the P&L statement, Balance sheet and cash flow statement provide an in-depth look at a company's financial performance together.
- P&L statement provides information about a company's ability or inability to generate profit by increasing revenue, reducing cost or both.

## Types of P&L statements

### ① Cash Method

- It is used when cash goes in & out of business.

### ② Accrual Method

- It is used to record revenue as it is earned.

### ③ Cash Flow statement (CFS)

- A cash flow statement summarizes the amount of cash and cash equivalents entering and leaving a company.
- It highlights a company's cash management, including how well it generates cash.
- The main components of the CFS are cash from 3 areas:
  - ⑦ Operating activities
  - ⑧ Investing activities
  - ⑨ Financing activities
- There are 2 methods of calculating cash flow:
  - ⑩ Direct method
  - ⑪ Indirect method

## Current Ratio

- It is a liquidity ratio that measures a company's ability to pay short-term obligations or those due within one year.
- Current ratio compares all of a company's current assets to its current liabilities.
- It is defined as assets that are cash or will be turned into cash in a year or less and liabilities that will be paid in a year or less.
- Current ratio helps investors to understand company's ability to cover its short-term debt with its current assets and make apple-to-apple comparison with its competitors and peers.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

## Quick Ratio

- The quick ratio measures a company's capacity to pay its current liabilities without needing to sell its inventory or obtain additional financing.
- The quick ratio is considered a more conservative measure than the current ratio which includes all current assets as coverage for current liabilities.
- The higher the ratio result, the better a company's liquidity and financial health.
- The lower the ratio result, more likely the company will struggle to pay debts.

$$QR = \frac{CE + ms + AR}{CL}$$

$$\text{or}$$

$$QR = \frac{CA - I - PE}{CL}$$

where,

$QR$  = Quick Ratio

$CE$  = Cash & Equivalent

$ms$  = Marketable Securities

$AR$  = Accounts Receivable

$CL$  = Current Liabilities

$CA$  = Current Assets

$I$  = Inventory

$PE$  = Prepaid expenses

## Composite Ratio

- Composite ratio compares two variables from two different accounts. One is taken from P&L account and other from balance sheet.
  - For example, the ratio of return on capital employed.
- Here, profit will be obtained from P&L statement and Capital employed is obtained from balance sheet.

## Leverage Ratio

- Leverage ratio is any one of several financial measurements that assesses the ability of a company to meet its financial obligation.
- A leverage ratio may also be used to measure a company's mix of operating expenses to get an idea of how changes in output will affect operating income.
- Types of leverage ratios

① Debt-to-equity ratio

$$= \frac{\text{Total Liabilities}}{\text{Total Shareholder's equity}}$$

② Equity Multiplier ratio

$$= \frac{\text{Total Assets}}{\text{Total Equity}}$$

③ Debt-to-Capitalization ratio

$$= \frac{(SD + LD)}{(SD + LD + SE)}$$

where,

$SD$  = short term debt

$LD$  = long term debt

$SE$  = shareholder's equity

④ Consumer Leverage Ratio

$$= \frac{\text{Total Household Debt}}{\text{Disposable Personal Income}}$$

## Capital Structure & Corporate Value

- A company's capital structure -
  - It is a blend of debt + equity.
  - It is a significant factor in valuing the business.
- The relative levels of equity & debt affect risk and cash flow and therefore, the amount an investor would be willing to pay for the company or for an interest in it.
- Capital structure matters because it influences the cost of capital. Hence it determines corporate value.
- Many business owners strive to be debt free but a reasonable amount of debt can provide some financial benefits.
- Debt is often cheaper than equity and interest payments are tax deductibles. So as the level of debt increases, returns to equity owners also increase which enhances the corporate value.

## Module 4

# Capital Budgeting & Working Capital Management

Factors affecting an entity's working capital needs

### ① Nature of Business

- The requirement of working capital depends on the nature of business
- The nature of business is usually of two types:

#### ② Manufacturing Business

#### ③ Trading Business

- In the case of manufacturing business it takes a lot of time in converting raw material into finished goods. Therefore, capital remains invested for a long time in raw material, semi-finished goods and the stocking of the finished goods.
- In case of trading business, the goods are sold immediately after purchasing or sometimes the sale is affected even before the purchase itself. Therefore, very little working capital is required.
- In case of service business, the working capital is almost nil since there is nothing in stock.

### ④ Scale of operations

- There is direct link between the working capital and the scale of operation.
- In other words, more working capital is required in the case of big organization while less working capital is needed in case of small organization.

### ⑤ Business cycle

- The need for the working capital is affected by the various stages of the business cycle.
- During the boom period, the demand of a product increases and sales also increased. Therefore, more working capital is needed.
- During the period of depression, demand declines and it affects both the production and sales of goods. In such situation, less working capital is required.

### ⑥ Seasonal Factors

- Some goods are demanded throughout the year while others have seasonal demand.
- Goods which have uniform demand the whole year their production and sale are continuous. Such organization need little working capital.
- Some goods have seasonal demand but the same are produced almost the whole year so that their supply is available readily when demanded. Such organizations have to maintain large stocks of raw material and finished product. Therefore they need large amount of working capital.

### ⑦ Production cycle

- It is the time involved in converting raw material into finished product.
- If period of production cycle is large, more working capital will be needed.
- If period of production cycle is little, less working capital will be needed.

### ⑧ Credit allowed

- Those organizations which sells goods on cash payment basis need little working capital but those who provide credit facilities to the customers need more working capital.

### ⑨ Credit availed

- If raw material are easily available on credit then less working capital is needed.
- If raw materials are not available on credit then more working capital is needed.

### ⑩ Inflation

- It means rise in price.
- In such situation, more capital is required than before to maintain previous scale of production/sales.
- Therefore, with the increasing rate of inflation, there is corresponding increase in the working capital.

### ⑪ Operating Efficiency

### ⑫ Growth Prospect

- Development of scale of operation requires significant capital.

## Inventory Management

- Inventory management refers to the process of ordering, storing, using and selling a company's inventory.
- Inventory management is the entire process of managing inventories from raw materials to finished products.

## Inventory Management Techniques

### ① Just-In-Time Management (JIT)

- Just-in-time is a Japanese technique of inventory management.
- In this technique, the company maintains only such quantity of inventory as it requires during the manufacturing / production process.
- It implies no excess inventory in hand and saves the cost of warehousing, shipping, insurance and another associated cost.
- Inventory is ordered when the old stock is close enough to be replenished.
- It is slightly risky inventory management technique because a little delay may result in loss of potential sales.

### ② ABC Analysis

- Always Better Control (ABC) technique classifies inventory into three categories namely: A, B & C.
- The technique aims to identify inventory that is earning you profit.
- This inventory management technique helps an organization to keep working capital cost low because it identifies line items that need frequent reorder and need not be stocked often.

### ③ Material Requirement Planning (MRP)

- MRP is an inventory management technique.
- In this technique, the manufacturer orders the inventory after taking into account the sales forecast.
- MRP system incorporates data from different areas of the business where inventory is utilized.
- After considering data and market demand, order for new inventory is placed.

### ④ Economic Order Quantity (EOQ)

- In this inventory management technique, a company focuses on the decision regarding how much quantity of inventory should be ordered and when the order should be placed.
- In this technique, the stock of inventory is reordered when it reaches the minimum ordering level.
- This inventory management technique saves the carrying and ordering cost incurred while placing the order.

### ⑤ Dropshipping

- Dropshipping is a business model, it allows to sell and ship commodities without owning and stocking them.
  - This inventory management technique eliminates the cost of inventory holding all together.
  - Dropshipping process is very simple
- ① You receive a product order.
  - ② You forward the order to your supplier.
  - ③ The supplier fulfills the order.

## Economic Order Quantity (EOQ)

- The EOQ refers to the ideal order quantity a company should purchase in order to minimize its inventory cost such as holding cost, shortage cost and order cost.
- The EOQ model seeks to ensure that the right amount of inventory is ordered per batch.
- This is so a company does not have to make orders too frequently and there is not an excess of inventory sitting on hand.
- EOQ is used in inventory management, which is the oversight of the ordering, storing and use of a company's inventory.

$$EOQ = \sqrt{\frac{2 \times S \times D}{H}}$$

where,

S = Setup costs (per order)

D = Demand rate (Quantity sold per year)

H = Holding costs (per year, per unit)

- The goal of the EOQ formula is to identify the optimal number of product units to order.
- If optimal number is achieved, a company can minimize its costs for buying, delivering and storing units.
- The EOQ formula can be modified to determine different production levels or order intervals.
- EOQ is an important cash flow tool.
- The formula can help a company control the amount of cash tied up in the inventory balance.
- For many companies, inventory is its largest asset. Other than its human resource and these businesses must carry sufficient inventory to meet the needs of customers. If EOQ can help minimize the level of inventory, the cash savings can be used for some other business purpose.
- The EOQ formula determines a company's inventory reorder point. When inventory falls to a certain level, EOQ formula, if applied to business processes, triggers the need to place an order for more units.

## Example

- EOQ takes into account the timing of reordering, the cost incurred to place an order, and the cost to store goods.
- If a company is constantly placing small orders to maintain a specific inventory level, the ordering costs are higher and there is need for additional storage space.
- For example, Assume a retail clothing shop carries a line of men's jeans and the shop sells 1000 pair of jeans each year. It costs the company 5 dollars per year to hold a pair of jeans in inventory and the fixed cost to place an order is 2 dollars.

$$EOQ = \sqrt{\frac{2 \times 1000 \text{ pairs} \times 2 \text{ dollars}}{5 \text{ dollars}}}$$

$$= 28.28$$

- The ideal order size to minimize cost and meet customer demand is slightly more than 28 pairs of jeans.

## Limitations of EOQ

- EOQ formula assumes that consumer demand is constant.
- The calculation also assumes that both ordering and holding costs remain constant.

## Management of receivables

- Receivable management is a business strategy designed to ensure that a company operates efficiently by monitoring and collecting its account receivables to the best effect.
- It means shortening the cycle time to collect receivables and ensuring that outstanding dues are fully recovered.
- Management of account receivable is needed for smooth operating cycle.
- Credit facility is laid down to ensure smooth cash flow.
- The word receivable stands for the amount of payment not received. This means the company has extended credit facility to its customer.
- Account receivable is the money that business has right to receive after a certain period of time when the business has sold goods or services on credit.
- For example, the account receivable is the record of the fact that a company has done some work for customer X and that customer X owes money to the company. Generally, the credit period is short ranging from a month or two to a year.
- The businesses usually have invested money in selling a product or delivering a service. After selling the goods, the inventories reduces and in turn businesses need an asset to balance the financial statements. Either that assets are cash-in-hand or receivables in case of credit sales and that's why account receivable appears in the assets side of the balance sheet.
- The idea behind providing a credit facility to customer is to facilitate and ease the process of the transaction, and establish a strong credit relation between the parties involved. It may lead to better deals or increase the chances of improving working capital management.

## Module 5

### Sources of Finance & Capital structure

#### Capital structure Theories

- Capital structure means a combination of all long term sources of finance
- There are 4 capital structure theories
  - ① Net Income Approach
  - ② Net Operating Income (NOI)
  - ③ Traditional Approach
  - ④ Modigliani - Miller Approach (M&M)

#### Net Income Approach

- This approach suggests that the value of the firm can be increased by decreasing the overall cost of capital (WACC) through a higher debt proportion.
- There are various theories that propagate the ideal capital structure for a firm.
- Capital structure is the proportion of debt and equity in which a corporate finances its business.
- The capital structure of a company/firm plays a very important role in determining the value of a firm.
- Durand presented Net Income Approach
- Weighted Average Cost of Capital (WACC) is the weighted average cost of equity and debt, where the weights are the amount of capital raised from each source.
- $$\begin{aligned} \text{WACC} &= \text{Required Rate of Return} \\ &\times \text{Amount of equity} \\ &+ \text{Cost of debt} \\ &\times \text{Amount of debt.} \\ &= \text{Total amount of capital} \\ &\quad (\text{Debt} + \text{Equity}) \end{aligned}$$
- According to Net Income Approach, a change in financial leverage of a firm will lead to corresponding change in WACC and company's value.
- Leverage means proportion of debt.

- The Net Income Approach suggests that,

- (a) If there is increase in leverage, the WACC decreases and the firm's value increases.
- (b) If there is decrease in leverage, the WACC increases and the firm's value decreases.

#### Assumptions of Net Income Approach

- The increase in debt will not affect the confidence levels of the investors.
- There are only two sources of finance: Debt and Equity
- All companies have a uniform dividend payout ratio; it is 1.
- There is no flotation cost, no transaction cost and corporate dividend tax.
- The capital market is perfect; it means information about all companies is available to all investors and there is no chance of overpricing or underpricing of security. Furthermore, it means that all investors are rational. So, all investors want to maximize their return by minimizing risk.
- All sources of finance are for infinity. There is no redeemable sources of finance.

## Mezzanine Financing

- It is a capital resource that sits between (less risky) senior debt and (higher risk) equity that has both debt and equity features.
- Companies use mezzanine financing to achieve goals that require capital beyond what senior lenders will extend.
- When companies have maximized their senior debt borrowing capacity or seek to preserve future senior debt capacity to pursue growth opportunities or for shareholder activity they are typically left with two options:
  - ① Raise outside equity
  - ② Use mezzanine financing
- Mezzanine financing can be viewed as either expensive (higher coupon) debt or cheap (less dilutive) equity.
- Mezzanine carries a higher interest rate than senior debt that companies would obtain through banks but is substantially less expensive than equity in terms of cost of capital.
- Mezzanine financing is less dilutive than raising additional equity to satisfy a capital need and ultimately allows existing owners to maintain control.
- Mezzanine financing is the last option to raise substantial capital without selling a large stake in their company.
- Mezzanine funding should be preferred when it is used for acquisition, shareholder's buyouts, refinancing, expansion.

### Benefits of mezzanine financing

#### ① To borrowers

- Cheaper, No dilution of stakes, lower equity requirement, lower tax liability, Boost Capital structure.

#### ② To lenders

- Regular revenue, Enhance the return, Investor gets regular returns.

## Module 6 Dividend Policy

### Dividend

- Share of profits that is distributed to shareholders.
- Return/Reward that shareholders receive for their investment in company.

### Types of dividend

#### ① Cash dividend

- Paid out in cash and reduces the cash reserves of a company.

#### ② Stock dividend

- Shares of the company are distributed to shareholders at no cost.
- It is usually done in addition of a cash dividend, not in place of it.

### Important dates

#### ① Declaration date

- Board of director announces dividend
- Board also announce date of record and payment date.

#### ② Date of record

- Ex-dividend date
- Day when the stock holders are entitled to the dividend payment.
- Only the owners of shares on or before that day will receive dividend.

#### ③ Payment date

- Dividends are distributed to shareholders

### Dividend Policy

- Policy dictates the amount of dividend paid out by the company to its shareholders and the frequency with which dividends are paid out.
- When company makes profit.

① They can keep the profits to themselves

② They can distribute the money to shareholders in the form of dividend.

### Types of dividend policies

#### ① Stable dividend

#### ② No dividend

#### ③ Regular dividend

#### ④ Irregular dividend

NumericalsQ1

Current Assets = 2 00 00 000  
 Current Liabilities = 1 40 00 000  
 Current Ratio (Minimum) = 1.33  
 Liabilities after borrowing or amount,  
 $= x + 140\ 00\ 000$

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

$$1.33 = \frac{200\ 00\ 000}{x + 140\ 00\ 000}$$

$$x + 140\ 00\ 000 = \frac{200\ 00\ 000}{1.33}$$

$$x + 140\ 00\ 000 = 150\ 37\ 593.98$$

$$x = 150\ 37\ 593.98 - 140\ 00\ 000$$

$$x = 1037593.98 \leftarrow \text{Amount can be borrowed}$$

Q2.

$$\text{Present Value} = 1000$$

$$\text{Interest Rate} = 12\% = 0.12$$

$$\text{Tenure} = 8 \text{ years}$$

$$\text{No. of times interest applied} = 4 \text{ times a year}$$

$$\text{Compound Interest Formula,}$$

$$A = P \left(1 + \frac{r}{n}\right)^{n \times t}$$

$$= 1000 \left(1 + \frac{0.12}{4}\right)^{4 \times 8}$$

$$= 2575.08 \leftarrow \text{Amount after 8 years}$$

Q15.

Capital Investment ( $i$ )	Continuous Capital Investment ( $ci$ )	Years
10000	10000	1
12000	22000	2
15000	37000	3
10000	47000	4
7000	54000	5

Payback period Formula,

$$\text{Payback period} = \frac{\text{Initial investment}}{\text{Cash flow per year}}$$

$$= 3 + \left[ \frac{40000 - 37000}{10000} \right]$$

$$= 3.3 \text{ years}$$

Q22

Interest Rate = 8% = 0.08

Year	Project Amount
0	1000
1	1200
2	600
3	250
4	2000
5	4000

Net Present Value,

$$NPV = \sum_{t=1}^n \frac{\text{Cash flows}_t}{(1+r)^t} - \text{Initial Investment}$$

$$NPV = \frac{1200}{(1+0.08)^1} + \frac{600}{(1+0.08)^2} + \frac{250}{(1+0.08)^3}$$

$$+ \frac{2000}{(1+0.08)^4} + \frac{4000}{(1+0.08)^5} - 1000$$

$$NPV = \underline{\underline{5016.36}}$$

Note: Positive NPV indicates profit

Internal Rate of Return,

Equate  $NPV = 0$  to find IRR

$$0 = NPV = \frac{1200}{(1+IRR)^1} + \frac{600}{(1+IRR)^2} + \frac{250}{(1+IRR)^3}$$

$$+ \frac{2000}{(1+IRR)^4} + \frac{4000}{(1+IRR)^5} - 1000$$

$$IRR = 1.03042$$

$$IRR = 103.042\%$$

Q23

Return (%) $R_i$	Probability $P_i$	ROI $E(R)$	$R_i - E(R)^2$	$P_i(R_i - E(R))^2$
-20	0.05	-1	(-33) <sup>2</sup>	54.45
-10	0.10	-1	(-23) <sup>2</sup>	52.9
10	0.20	2	(-3) <sup>2</sup>	1.8
15	0.25	3.75	2 <sup>2</sup>	1
20	0.20	4	7 <sup>2</sup>	9.8
25	0.15	3.75	12 <sup>2</sup>	21.6
30	0.05	1.5	17 <sup>2</sup>	14.45
			13%	156

$$\text{Variance} = \underline{\underline{156}}$$

$$\text{Standard deviation} = \sqrt{\text{Variance}}$$

$$= \sqrt{156}$$

$$= 12.48\%$$