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FUNDAMENTALS OF FINANCIAL MANAGEMENT

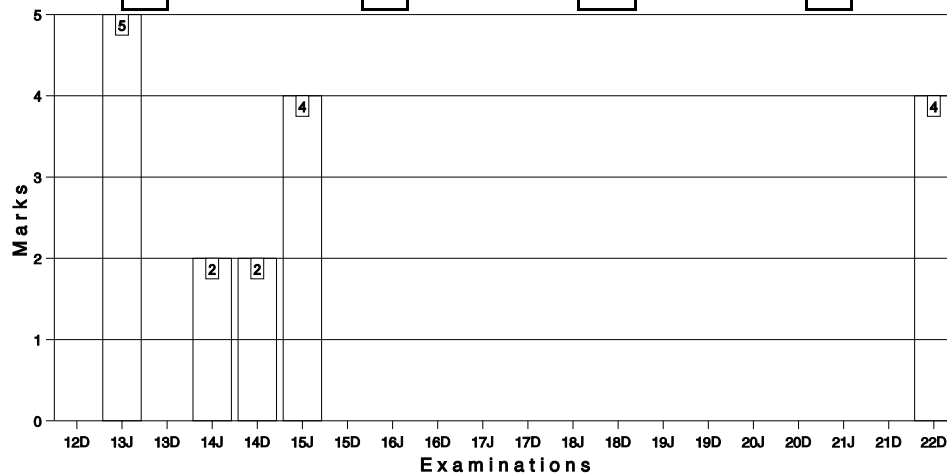
THIS CHAPTER INCLUDES

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| <ul style="list-style-type: none"> • Introduction to Financial Management Fundamentals <ul style="list-style-type: none"> - Objective of Financial Management - Scope and Functions of Financial Management - Profit Optimisation and Value Maximisation Principle - Dynamic Role of a CFO in Emerging Business Environment • Time Value of Money <ul style="list-style-type: none"> - Rationale - Techniques | <ul style="list-style-type: none"> - Future Value and Present Value of a Single Cash Flow - Annuity and Perpetuity - Compound Annual Growth Rate (CAGR) - Practical Applications • Risk and Return <ul style="list-style-type: none"> - Various Connotations of Return - Ex-ante and Ex-post Return - Types of Risks - Calculation of Return and Risk - Capital Asset Pricing Model |
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Marks of objective, Short Notes, Distinguish Between, Descriptive & Practical Questions

Legend

☐ Objective
 ☐ Short Notes
 ☐ Distinguish
 ☐ Descriptive
 ☐ Practical



CHAPTER AT A GLANCE

Objectives of Financial Management

- (i) **Profit Maximization:** In the economic theory, the behaviour of a firm is analysed in terms of profit maximization. It implies that a firm either produces maximum output for a given amount of input or uses minimum input for producing a given output. So, profit is considered to be the main driving force in business.

A firm should manage all aspects of the business in such a way that revenues are maximised and costs are minimised to obtain maximum profit. Arguments in favour and against of profit maximisation are discussed in subsequent section of this chapter.

- (ii) **Value/ Wealth Maximization:** The earlier objective of profit maximization is now replaced by value/wealth maximization. Since profit maximization is a limited one it cannot be the sole objective of a firm. Value creation is the driving force behind financial management. Creating wealth for shareholders by increasing the value for their investment is the key goal of financial management today. Maximising the market value of the firm can be calculated by using the formula

$$MV = MV_E + MV_D$$

Where,

MV = Market value of the firm

MV_E = Market value of equity shares

MV_D = Market value of debt; if any

When the book values and market values of debts are the same, value or wealth maximization essentially reflects maximisation of market value per equity share.

Scope of Financial Management

- (i) **Investment Decision:** Investment decision of a firm includes two main aspects- where to invest and how much to invest or the amount of investment. This maximizes the wealth of a firm. There are two basic

issues involved in investment decisions:

- (a) Evaluation of alternative investment avenues so as to select the best option.
- (b) Monitoring and implementation of the selected investment option.
- (ii) **Financing Decision:** The objective of a financing decision of a firm should be to find out the optimum combination of debt – equity, where cost of capital will be minimum and return will be maximum. Financing decision involves decision regarding the financing pattern of the firm. There are mainly two sources of raising funds- internal source and external source.
- (iii) **Dividend Decision:** Dividend decision of a firm includes determining how much to distribute as dividend and how much to retain for future expansion programme. The objective of dividend policy is to maximise the market value of the equity shares.

- (i) Determining Financial Needs
- (ii) Determining Sources of Fund
- (iii) Financial Analysis
- (iv) Optimal Capital Structure

Compounding is the process of finding future values of cash flows by applying the concept of compound interest.

We can calculate the future values (FV) of all the cash flows at the end of the time period at a given rate of interest.

Future value = Present value + Interest

Discounting is the process of determining present values of a series of future cash flows. The compound interest rate used for discounting cash flows is also called the discount rate.

Return is the motivating force and the principal reward in the investment process and it is the key method available to investors in comparing alternative investments. Returns may have different meanings depending upon the investors' perceptions.

Realised return is after the fact return -return that was earned or could have been earned. Realised return is called historical return.

Expected return is the return from an asset that investors anticipate they will earn over future period. It may or may not occur.

Ex-ante Return:

Ex-ante refers to future events. Ex-ante return is the prediction of returns that investor can get from a security or a portfolio.

Ex-post Return:

Ex-post means after the event. Ex-post returns are the returns that investor has already got from investment, i.e., historical return.

Types of Risk

- **Systematic Risk:** It represents that portion of Total Risk which is attributable to factors that affect the market as a whole. Economic, political and sociological changes are sources of systematic risk. Beta is a measure of Systematic Risk.
- **Unsystematic Risk:** It is the position of total risk that is unique to a firm or industry.

Capital Asset Pricing Model

William F. Sharpe and John Linter developed the Capital Asset Pricing Model (CAPM). The model is based on the portfolio theory developed by Harry Markowitz. The model emphasises the risk factor in portfolio theory which is a combination of two risks, systematic risk and unsystematic risk. The model suggests that a security's return is directly related to its systematic risk which cannot be neutralized through diversification.

Using Beta as the measure of non-diversifiable risk, the CAPM is used to define the required rate of return on a security

$$E(R_S) = R_F + \{ \hat{a}_S \times (R_M - R_F) \}$$

Where,

$E(R_S)$ = Expected Return on the Security or Investment

R_F = Risk Free Rate of Interest/ Return

$\hat{a}_S$ = Security Beta or Risk Premium

R_M = Expected Return on all securities or Market Return

SHORT NOTES

2022 - Dec [10] Write short notes on the following:

(b) Systematic and Unsystematic Risk

(4 marks)

DESCRIPTIVE QUESTIONS

2013 - June [4] (b) What are the basic financial decisions? How do they involve risk-return trade off? **(5 marks)**

Answer:

The basic financial decisions include long term investment decision, financial decision and dividend decisions.

- (i) **Investment Decision:** Investment Decision relates to the selection of assets (fixed and current) in which funds will be invested by a firm. These decisions are of two types' Capital Budgeting Decision and Working Capital Decisions. Long-term investment decision is known as capital budgeting and short-term investment decision (current assets) is identified as working capital management – Proper trade – off between liquidity and profitability.
- (ii) **Financing Decision:** The Concern of financial is with financial mix or capital structure or leverage of firm – trade off between risk and return by maintaining a proper balance between debt and equity capital.
- (iii) **Dividend Decision:** Concerned with the distribution of profits of firm to the share holders. It will depend upon the preference of the shareholders, investment opportunities available within the firm and opportunities for future expansion of the firm.

— Space to write important points for revision —

PRACTICAL QUESTIONS

2014 - June [6] {C} Answer the following. (No credit will be given for answer without the reasoning)

(a) X deposits ₹ 1,00,000 at the beginning of each of years 1 and 3, and ₹ 1,00,000 at the end of each of the years 2, 4 and 5. Find the discounted value of the investments at the end of year 3 with a discount rate of 10%.

(P.V. factor of 10% at the year end 0, 1, 2, 3, 4, 5 and 6 are respectively: 1, 0.909, 0.826, 0.751, 0.683, 0.621, 0.564) **(2 marks)**

Answer:

Discounted value at the end of 3 years

Year	Investment	PV factor at 10% at end of year 3	Discounted value
Beginning of year 1	100000	$(1.1)^3 = 1.331$	1,33,100
End of year 2	200000	$(1.1)^1 = 1.1$	2,20,000
End of year 4	100000	$1/(1.1) = 0.909$	90,900
End of year 5	100000	$1/(1.1)^2 = 0.826$	82,600
Discounted value of the investments at the end of year 3			526600

— Space to write important points for revision —

2014 - Dec [1] Answer the question:

(h) Ascertain the discounted value at 10% p.a. at the end of year 1 of an investment of ₹ 2,00,000 to be made at the end of year 2 and ₹ 30,000 made immediately. **(2 marks)**

Answer:

Discounted value at the end of year 1, Invested ₹ 30,000 now and 2,00,000 at the end of year 2.

$$3,00,000 (1 + 0.10) = 3,30,000$$

$$2,00,000 / (1 + 0.10) = 1,81,818$$

$$\text{Total} \quad \underline{\underline{5,11,818}}$$

2015 - June [I] (c) Ascertain the future value of annuity of ₹ 25,000 at the end of 6 years at 9% p.a. compounded annually. Assume that the amount is deposited at the beginning of every year. **(2 marks)**

(h) Mr. X expects to receive ₹ 2,00,000 at the end of three years. What would be the present value if the rate of discount is 10%? **(2 marks)**

Answer:

(c) Calculation of Future Value of Annuity:

Year	Annuity Amount (₹)	Future Value of (₹) 1	Future Value (₹)
1	25,000	1,677	41,925
2	25,000	1,539	38,475
3	25,000	1,412	35,300
4	25,000	1,295	32,375
5	25,000	1,188	29,700
6	25,000	1,090	27,250
Future value of Annuity at the end of 6th year			2,05,025

Answer:

$$\begin{aligned}
 \text{(h) Present value} &= \frac{\text{Future value}}{(1 + i)^n} \\
 &= \frac{2,00,000}{(1 + 0.10)^3} \\
 &= \frac{2,00,000}{1.331} \\
 &= ₹ 1,50,263
 \end{aligned}$$