

## SEMESTER – 6

### INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT [BAF-602]

#### INTRODUCTION

This course provides a broad overview of the theory of financial markets and investment management, focusing on the application of portfolio theory to the issue faced by portfolio managers and investors in general.

Topics include equity and fixed income investment and valuations, issues related to portfolio performance evaluation and investor's behaviour. This also deals with the risk management instruments (derivatives) used to manage the risk in financial markets. It also provides the extensive idea about general portfolio management tools which are applicable when managing portfolios with various asset classes.

#### OBJECTIVE

The main objectives of this course are:

- to provide a theoretical and practical background in the field of investments.
- designing and managing the bond as well as equity portfolios.
- overview of derivatives including options.
- Measurement and evaluation of portfolio performance.

- Overview of investors' behaviour.

#### OUTCOMES

After taking this course, the students will be able to:

- describe and to analyze the investment environment, different types of investment vehicles;
- understand and to explain the logic of investment process and the contents of its' each stage;
- use the quantitative methods for investment decision making – to calculate risk and expected return of various investment tools and the investment portfolio;
- distinguish concepts of portfolio theory and apply its' principals in the process of investment portfolio formation;
- analyze and to evaluate relevance of stocks, bonds, options for the investments;
- understand the psychological issues in investment decision making;
- Differentiate between active and passive investment strategies.
- distinguish between required return and desired return.
- Understand the portfolio performance measures

#### INDICATIVE GRID

PART	SYLLABUS CONTENT AREA	WEIGHTAGE
A	<b>INVESTMENT ANALYSIS</b>	
	1. Investment environment and investment management process	10%
	2. Quantitative methods of investment analysis	15%
	3. Equity Valuation and Analysis	15%
	4. Fixed Income/Bond Analysis & Valuation	15%
	5. Psychological aspects in investment decision making	10%
B	6. Using Derivatives as Investments	10%
	<b>PORTFOLIO MANAGEMENT</b>	
	7. Theory for Investment Portfolio Formation	15%
	8. Portfolio Management and Evaluations	10%
<b>TOTAL</b>		<b>100%</b>

**Note:** The weightage shown against each section indicates, study time required for the topics in that section. This weightage does not necessarily specify the number of marks to be allocated to that section in the examination.

#### CONTENTS

##### PART- A

##### INVESTMENT ANALYSIS

##### 1. Investment environment and investment management process

- Introduction of Investment Instruments/Securities, currencies, contracts, commodities and real assets, their distinguishing characteristics and major subtypes
- Introduction of Financial Markets and indices
- Participants including brokers, Investment companies, dealers/ traders.
- Mutual Funds and their different types along with other pooled Investment Products i.e.
  - Exchange traded Funds,
  - Separately managed account,
  - Hedge funds,
  - Buyout funds and
  - Venture capital funds
- Understanding the difference between investment and financing decisions
- Direct versus indirect investment

- Investment environment
  - Investment vehicles
  - Financial markets
- Investment management process

##### 2. Quantitative Methods of Investment Analysis

- Investment income and risk
  - Return on investment and expected rate of return
  - Investment risk, Variance and standard deviation
- Relationship between risk and return
  - Covariance
  - Correlation and Coefficient of determination
- Relationship between the returns on stock and market portfolio
  - Characteristic line and Beta factor
  - Residual variance

##### 3. Equity Valuation and Analysis

- Overview and characteristics of Equity securities
- Industry and Company Analysis i.e. ratio analysis and their interpretations

- Equity Valuation Models including
  - Discounted cash flow models,
  - Multiplier Models,
  - Asset based models.
- Understanding of fair valuation, over valuation and undervaluation.
- Understanding of investment strategies in equity i.e. active and passive strategies
- Stock analysis for investment Decision Making
  - E-I-C analysis
  - Fundamental analysis
- Formation of stock portfolios

#### 4. Fixed Income/Bond Analysis & Valuation

- Fixed Income Securities:
  - features, bond indentures and covenants,
  - types (Government & Private bonds),
  - Fixed & variable coupon securities,
  - Primary and secondary markets and their mechanisms,
- Short term securities including repo transactions
- Introduction to Fixed Income Valuation:
  - Calculation of Bond prices,
  - understanding of different types of Bond yields, Forward and Spot rates
  - calculation of bond prices with the help of spot prices,
  - Understanding and calculation of flat price
  - accrued interest and full price of a Bond
- Fixed Income Return and Risk:
  - sources of risk and return,
  - calculation and understanding of Macaulay, modified, and effective duration,
  - impact of bond's maturity, coupon, embedded options and yield level on bond risk and return,
  - portfolio duration, Money duration and price value of a basis point (PVBP),
  - calculation and interpretation of approximate convexity,
  - difference between approximate and effective convexity,
  - estimation of the percentage price change of a bond for a specified change in yield given the bond's approximate duration and convexity.
- Financial ratios use in credit analysis, Credit Ratings and understanding of each credit rating, Credit rating agencies

- Identification and classification of bonds
- Bond analysis: structure and contents
  - E-I-C analysis
  - Fundamental analysis
  - Quantitative analysis
  - Qualitative analysis
  - Market interest rates analysis
- decision making for investment in bonds; bond valuation
- Strategies for investing in bonds.
- Immunization

#### 5. Psychological aspects in investment decision making

- Overconfidence
- Disposition effect
- Perceptions of investment risk
- Mental accounting and investing
- Emotions and investment decisions

#### 6. Using Derivatives as investments

- Essentials of options
- Options pricing
- Using options, profit and loss on options
- Portfolio protection with options.
- Hedging
- Future Contracts
- SWAPS
- Forward Rate Agreement

### PART – B PORTFOLIO MANAGEMENT

#### 7. Theory for investment portfolio formation

- Portfolio Theory
  - Markowitz portfolio theory
  - The expected rate of return and risk of portfolio
- Capital Asset Pricing Model
- Arbitrage Price Theory
- Market Efficiency Theory

#### 8. Portfolio management and evaluation

- Active versus passive portfolio management
- Strategic versus tactical asset allocation
- Monitoring and revision of the portfolio
- Portfolio performance measures

**TEACHING METHODOLOGY:** The faculty is advised to teach the topics in the mode of case studies based on problem solving and decision-making with practical approach.

#### RECOMMENDED BOOKS

TITLE	CORE READINGS	
	AUTHOR	PUBLISHER
CIMA, UK Study Text	---	BPP
Relevant Study Text	---	Kaplan Publishing
Investment Analysis and Portfolio Management	Prasanna Chandra	Tata McGraw-Hill Education,
---	CFA Texts – Level 1	---