Birla Institute of Technology & Science, Pilani
Hyderabad Campus

FIRST SEMESTER 2023-2024

Course Handout Part II

Date: 11-08-2023

In addition to Part-I (General Handout for all courses appended to the time table), this portion gives further specific details regarding the course.

Course No.	: ECON F315/FINF315
Course Title	: Financial Management
Instructor-in-Charge	: Dr. Nivedita Sinha (nivedita.sinha@hyderabad.bits-pilani.ac.in)

1. **Scope and Objectives of the Course:**

   This course helps students to understand and apply concepts of financial management, time value of money, risk and rates of return, cost of capital, financial planning, capital investment decisions, capital management, capital structure and rewarding policy (shareholders) and corporate taxation. This course aims at applying and examining the fundamentals of financial concepts and theories in the process of financial decision-making in national and international organizations. The structure of the course will enable students to appreciate the integration between financial markets, the business environment and the role of the finance manager in maximizing the firm's and shareholders' value.

2. **Teaching Methodology:**

   The course is designed to be an "Active-Based Learning." That is, the student has to experiment with applying concepts learnt in the course in real business cases. The course will utilize active learning methods such as cooperative / project-based learning, and case and problem-based learning in addition to the effective utilization of electronic resources. The application of various concepts will be drawn from the best source(s) i.e. refereed journals, case studies, opinion-based papers, etc.

In order to make this course as applied financial management, the concepts and theories discussed in the course will be in the context of various companies as mentioned below as examples.

i. The first company is a large multinational company in the entertainment sector from developed economy (**Disney, USA**). The second one is a large mining/metal company in mining / metal sector from a developing economy (**Vale, Brazil**). These two companies for example will allow us to look at what do they share common and what they might do differently.

ii. The third company is a part of family group of companies – a public limited manufacturing company in a developing economy (**Tata Motors, India**). The objective is to examine the special features that a manufacturing company faces and what it means for an individual investor to be a part of much larger family group whose interest might be different from interest of the selected company.

iii. Fourth company is from most influential economy and is a dominant search engine in an emerging economy (**Baidu, China**). We will analyze what it shares with the rest of the world and how corporate governance can be an issue.

iv. The fifth one is a regulated financial services company in a developed economy (**One leading Bank, Germany**) and will analyze how constraints put on company can influence corporate finance decision.

v. The sixth one is a small private business in India to illustrate how the owner of the small private business faces exactly the same decisions that large public traded business faces. These six categories of business (small to large, private to public traded, emerging to developed) will be my students' lab experiment that will run through 40 sessions.

3. Text Book:

Richard A Brealey, Stewart C Myers, Franklin Allen and Pitabas Mohanty, Principles of Corporate Finance, 2012, Tata McGraw-Hill Publishing Company Ltd.

4. Reference Books:

1. Prasana Chandra, Financial Management: Theory and Practice, 6/e, 2005, Tata McGraw Hill,
2. Eugene F. Brigham and Louis C. Gapenski, Financial Management: Theory and Practice, 6/e,1991, The Dryden Press.
3. Lawrence J. Gitman, Principles of Managerial Finance, 6/e, 1991, Harper Collins Publishers.
4. I.M. Pandey, Financial Management, 9/e, 2005, Vikas Publishing House, Pvt. Ltd.
5. Elton Gruber, John Wiley & Sons, Modern Portfolio: Theory and Investment Analysis, Inc.4/e, 1991,Wiley.
6. Damodaran Aswath, Corporate Finance: Theory and Practice, 2/e, John Wiley & Sons, Inc.2001.
7. Stephan A. Ross, Randolf W. Westerfield, Jeffrey Jaffe, Bradford D Jordan, Ram Kumar Kakani, Corporate Finance, Special Indian edition,11/e, McGraw-Hill Education Pvt. Ltd.

5. **Course Plan:**

Module-1: Introduction and Business

Objectives. Topics:

Relationship between financial accounting and financial management; Describe what the subject of financial management is about; Interface between Finance and Other Functions; Financial statement analysis and interpretation; Interface between goal of the firm, responsibility of finance manager and financial system; Themes of Financial Management; and Business objectives

(Share Price Maximization versus Business Value Maximization), **Learning Outcomes:**

The student should be able to: understand conceptual differences between accounting balance sheet and financial balance sheet and its significance; interpret financial accounting numbers based on GAAP from financial decision making perspectives; understand how goal of an organization is aligned with its financial performance and external environment; define objectives (Reality and Reaction) integrating business with shareholders, lenders, financial market players and society (share price maximization versus organization's value maximization); and understand principles from organization's objective perspective.

Assignment-1: Experiential Learning

Topic-1: Financial Statement Analysis and Interpretation of Selected Companies. **Learning Outcome:**

Analyze and interpret financial performance of company from stakeholders' perspective using various financial and non-financial ratios through time series, comparative and industry analysis.

Topic-2: Empirical Study of Shareholders' Wealth Maximization

Learning Objective: Measure to what extent company is taking care of its shareholders' wealth maximization (MVA) and how shareholders' wealth is impacted by other financial variables.

Reference Article:

1. Arvind Mahajan and Scott Lummer, Shareholder Wealth Effect of Management Changes.
2. Donald R. Chambers and Nelson J. Lacey, Corporate Ethics and Shareholder Wealth Maximization.
3. Thomas E. Copeland, Why Value Value? McKinsey Quarterly, November 1994.
4. Timothy M. Koller, Why Value Value- Defending against crisis, McKinsey Quarterly, April 2010.
5. Geoffrey Poitras, Shareholders Wealth Maximization, Business Ethics and Social Responsibility, Journal of Business Ethics, Feb. 1994.
6. Michael C. Jensen, Value Maximization, Stakeholders Theory, and the Corporate Objective Function (Working Paper, HBS 2002).
7. Michael C. Jensen, Value Maximization and the Corporate Objective Function (Working Paper, HBS, 2000)

Reference: Text Book, Chapter-1, No. of Sessions: 5

Module-2: Time Value of Money – Effect of Inflation on Business

Topic:

Time Value of Money – Discounting and Compounding, Annuity – Annuity Due and Ordinary Annuity, and Loan Amortization

Learning Outcome:

The student should be able to: understand the mechanics of compounding: how money grows over time when it is invested; determine the future or present value of a sum when there are non-annual compounding periods; understand the relationship between compounding (future value) and bringing money back to the present (present value); define an ordinary annuity and calculate its compound or future value; differentiate between an ordinary annuity and an annuity due, and determine the future and present value of an annuity due; calculate the annual percentage yield or effective annual rate of interest and then explain how it differs from the nominal or stated interest rate.

Reference: Text Book, Chapter-6, No. of Sessions: 1

Module-3: Investment Decision:

Hurdle Rate. Topics:

Hurdle Rate: Define & Measure Risk; The Risk Free Rate; Equity Risk Premium (ERP); Country Risk Premium; Regression Beta; Fundamental Beta; Bottom-up Beta; The "Right" Beta; and Debt – Measures and Cost;

Learning Outcomes:

- **Define & Measure Risk-**

  The Students should be able to: understand rationale behind expected return based on risk (Risks and Rates of Return); and understand concept of risk which is a central measure in any financial decision.; understand conventional definitions of risk and how financial theories (CAPM, APM, Multi-Factors Models and Proxy Models) measure risk; and set up estimation questions that will come up in next sessions.

- **The Risk Free Rate-**

  The Students should be able to: understand concept and significance of Risk Free Rate (R_f) which is central input in everything in finance, characteristics that can make an asset (investment) as risk free; validate measurement issues that could be experienced while estimating R_f; and know as to how to arrive at an appropriate Risk Free Rate (what to measure).

- **Equity Risk Premium (ERP) and Country Risk Premium-**

  The Students should be able to: understand concept of ERP (what an investor can demand on an average risk investment relative to the risk free rate); to measure (survey- reactive way, historical way – looking backward and forward looking / dynamic approaches) to come up to that number; understand relationship between ERP and profile of investor (level of risk aversion) and investment; understand how much of an expected return would an investor demand to shift his/her money from the riskless asset to the risky asset i.e. why there is one wrong figure without having any specific right/correct number?; understand how and why ERP should be dynamic/forward looking (understand how forward looking dynamic way of estimating ERP that reflects what is going on around is more dependable than looking backward); understand Equity Risk Premiums (ERP): Determinants, Estimation and Implications; understand methodology in estimating Implied ERP (IERP) and how country risk premium can be adjusted with ERP using CDS / rating given by various rating agencies / bond yield.

- **Regression Beta-**

  The Student should be able to: understand conventional way of estimating beta (regression of stock return against market index return) and why that beta might not be the best beta to use either for financial management or business valuation (understanding limitations i.e. noise and bias of regression beta); appreciate the intercept [R_f (1-b)] and stock's performance; understand what portion of risk of stock is explained by market and company specific risk – understand where risk is coming from; understand and measure how well or badly stock did perform after adjusting from risk and market performance (Jensen Alpha); understand the significance of dividends on stock's return; understand how to choose market index and do judgmental analysis of Jensen Alpha; and understand significance of standard error and arriving at range of beta [Recognize limitations of regression beta].

- **Fundamental Beta-**

  The Student should be able to: learn the better way of estimating beta i.e Fundamental Beta which depends on choices that business make - what kind of business is to pursue (determinants of beta) and how business is run – cost structure (fixed cost), and how much business borrows.

- **Bottom-up Beta-**

  The Student should be able to: learn pragmatic steps towards estimating beta by bypassing regression beta (top-down beta); and understand how value of business / revenue and debt to equity can determine beta (weighted averages of beta of investments).

- **Debt – Measures and Cost;**

  The Student should be able to: learn three characteristics (contractual payment, tax deductible expense and loss of control) of debt; calculate cost of debt (with and without secondary debt market by converting book value of debt into market value); learn why non-interest bearing debt should not be considered as debt.

  Assignment-2: Experiential Learning

Topic-1: Systematic Risk Assessment and Analysis (Beta Calculation and Analysis)

Learning Outcome: Assess and analyse of amount of systematic risk that organization is exposed to which will have impact on return to shareholders and financing mix of an organization.

Reference Article:

1. Aswath Damodaran, Estimating Equity Risk Premiums, Working Paper, Stern School of Business.
2. Robert F. Peterkort and James F. Nielsen, Is The Book-To-Market Ratio A Measure of Risk?
3. Taek Ho Kwon, Sung C. Bae and Jay M. Chung, Do Foreign Investors Price Foreign Exchange Risk Differently?
4. Aswath Damodaran, Measuring Company Exposure to Country Risk: Theory and Practice, Working Paper, Stern School of Business.
5. Steven T Goldberg, 7 Sure Ways to Bigger Return.

Reference: Text Book, Chapter-7 & 8, No. of Sessions: 10

Module-4: Estimation and Analysis of Business Risk (Leverage) – Analysis of Cost Structure. Topics:

Cost components and significance, BEP – How much to produce, Estimation and Analysis of Business Risk –Degree of Operating Leverage and Degree of Financial Leverage.

Learning Outcomes:

The Student should be able to: understand the difference between business risk and financial risk; appreciate importance of break-even analysis of analytical settings; distinguish among the financial concepts of operating leverage, financial leverage, and combined leverage; calculate the firm's degree of operating leverage, financial leverage, and combined leverage; and explain why a firm with a high business risk exposure might logically choose to employ a low degree of financial leverage in its financial structure.

Assignment: Experiential Learning

Topics: Measuring and analyzing business risk

Learning Outcomes: To understand and analyze how cost structures, both operating and financial, of an organization can impact business risk and need for cost management.

Reference Article:

1. Richard A Lord, Impact of Operating and Financial Leverage on Equity Risk.
2. Brent A Gloy and Timothy G. Baker , The Impact of Financial Leverage and Risk Aversion in Risk Management Strategy Selection.
3. Hossein Asgharian, Are highly leveraged firms more sensitive to an economic downturn? 4. Richard A Lord, Interpreting and Measuring Operating Leverage.
5. Robert J Long , A Different Perspective on Operating Leverage: Comments .

6. John J. Dran, Jr, A Different Perspective on Operating Leverage: Comments

Reference: Text Book, Chapter-7 & 8, No. of Sessions: 2

Module-5: Cost of Capital - Estimation and Analysis. Topic:

Cost of various components of capital – Equity, Debt and Rights, and Weighted Average Cost of Capital.

Learning Outcome:

The Student should be able to: understand the underlying concepts of cost of capital; understand the rationale behind estimating after-tax cost of debt; calculate a firm's weighted average cost of capital (WACC); understand why WACC based on market value is more relevant than book value; understand ways and means of reducing WACC; and understand the application of cost of capital in business decisions.

Assignment-3: Experiential Learning

Topic: Estimation of Cost of Capital of Selected Companies

Learning Outcome: Estimate and critically analyze overall cost of capital (WACC) of selected companies.

Reference: Text Book, Chapter-9, No. of Sessions: 2

Module-6: Capital Budgeting Decision Topics:

Introduction - Types and importance of capital expenditure (Project) decisions on business sustainability; Capital budgeting processes and principles; Investment criteria; Cash flow projections; Project analysis and evaluation - non-discounted and discounted cash flow methods; and Measuring and analyzing risk of capital expenditure decisions.

Learning Outcomes:

The Student should be able to: calculate the yearly cash flows of expansion and replacement capital projects and evaluate how the choice of depreciation method affects those cash flows; explain how inflation affects capital budgeting analysis; evaluate capital projects and determine the optimal capital project in situation of 1) mutually exclusive projects with unequal lives, using either the least common multiple of lives approach or the equivalent annual annuity approach, and 2) capital rationing; explain how sensitive analysis, scenario analysis and decision tree analysis can be used to assess the stand-alone risk of a capital project; explain and calculate an appropriate discount rate (project versus company discount rate, static versus dynamic discount rate), based on market risk methods to use in evaluating a capital project; describe types of real options and evaluate a capital project using real options; describe common capital budgeting pitfalls; calculate and interpret accounting income and economic income in the context of capital budgeting; distinguish among the economic profit, residual income, and claim valuation models for capital budgeting and evaluate a capital project using each; and measure and manage capex risk (scenario analysis, sensitivity analysis and decision tree analysis. How to trim capex amount?)

Assignment-3: Experiential Learning

Topics: Analysis of Capital expenditure project of Visakhapatnam Steel Plant (VSP) or Risk analysis in Capital budgeting using Python programming

Learning outcomes: Project implementation and evaluation processes and how does delay in project execution can lead to cost overrun. To understand how to perform risk analysis for capital budgeting.

Reference Article:

1. Thomas E. Copeland and Philip T. Keenan, How much is the Flexibility Worth.
2. Lenny H. Pattikawa, Ernst Verwaal and Harry R. Commandeur, Understanding new product project performance, European Journal of Marketing, Vol. 40 No. 11/12, 2006.
3. John B. White* and Morgan P. Miles, The Managerial Imperative of Evaluating Non-Capital Expenditures within a Capital Budgeting Context, Journal of Financial and Strategic Decisions, Fall 1998.
4. Henrik Cronqvist, Angie Low and Mattias Nilsson , Does Corporate Culture Matter for Investment and Financial Policies?
5. Jeremy Carter, Menno van Dijk and Ken Gibson, Capital Investment: How not to build the Titanic.
6. Harol H. Koyama and Robert Van Tassel, How to Trim Capital Spending by 25 percent. 7. John O’Leary, Learn to Speak the Language of ROI.

8. Aswath Damodaran, Picking the Right Projects: Investment Analysis, Working Paper, Stern School of Business.

Reference: Text Book, Chapter-10 & 11, No. of Sessions: 7

Module-7: Working Capital

Management Topics:

Introduction and Objective of Working Capital Management: Static and Dynamic view of Working Capital; Factors Affecting Composition of Working Capital; and Working Capital Estimation; **Financing Current Assets:** Behavior and pattern of financing, Spontaneous sources of financing (Trade credit), Short-term bank finance, CPs and Factoring; **Management of Current Assets:** Inventories - Role of Inventories in Working Capital, Cost of carrying inventories, Inventories planning and management techniques; Receivables – Purpose and cost of maintaining receivables; and Impact of credit policy and process of credit evaluation, Monitoring Receivables; and **Management of Cash:** Difference between profits and cash, and factors affecting cash management and Internal Treasury Controls. **Learning Outcomes:**

The Student should be able to: estimate working capital requirement using Operating Cycle and Simulation Approach; understand how operating cycle and cost structure can affect working capital requirement; understand sources and cost of working capital financing; estimate cost of carrying inventories and its impact on profits and liquidity position of the company; and evaluate to whom and for how long credit should be given.

Assignment-4: Experiential Learning

Topics: Estimation of Working Capital in Selected Companies.

Learning Outcomes: Learn how operating cycle can determine working capital requirement and its impact on liquidity and profitability position of the companies.

Reference: Text Book, Chapter-15, 28, 29 & 30, No. of Sessions: 6

Module - 8: Capital Structure- How Debt as Opposed to Equity?

Topics:

Capital structure decision – Proposition I (Without Taxes: Capital Structure Irrelevance) and

Proposition – II (Without Taxes: Higher Financial Leverage Raises the Cost of equity), With Taxes, the Cost of Capital, and Value of the Company; Cost of Financial Distress; Agency Costs; Costs of Asymmetric Information; The Optimal Capital Structure According to the Static Trade-off Theory; and Practical Issues in Capital Structure Policy.

Learning Outcomes:

The Students should be able to: explain the Modigliani-Miller propositions regarding capital structure, including the effects of leverage, taxes, financial distress, agency cost, and symmetric information on a company's cost of equity, cost of capital, and optimal capital structure; describe target capital structure and explain why a company's actual capital structure may fluctuate around its target; describe the role of debt ratings in capital structure policy; explain factors an analyst should consider in evaluating the effect of capital structure policy on valuation; and describe international differences in the use of financial leverage, factors that explain these differences, and implications of these differences for investment analysis.

Assignment: Experiential Learning

Topic: Empirical study of determinants of Capital Structure.

Learning Outcomes: Learn to choose dummy variables representing determinants and measure the most important determinants of capital structure of selected companies.

Or

Topic: Determine the optimal capital structure for a firm using Minimization of cost of capital approach using excel and Python programming

Learning Outcomes: Learn to find the optimal capital structure of a firm by applying extended static tradeoff theory.

Reference Article:

1. Saumitra N. Bhaduri, Determinants of Corporate Borrowing: Some Evidence from the Indian Corporate Structure, Journal of Economics and Finance, Volume 26, Number 2, Summer 2002.
2. Thomas W. Killian, Designing an Optimal Capital Structure.
3. Erik Lie , Do Firms Undertake Self-Tender Offers to Optimize

Capital Structure? 4. Linda, by Thomas and Stephen, Debt vs.

Equity and Asymmetric Information.

5. Patricia Anslinger, Dennis Carey, Kristin Fink, and Chris Gagnon, Equity carve-outs: A new spin on the corporate structure, The Mckinsey Quarterly 1997,
6. Thomas J. O"Brien, Linda Schmid Klein and James I. Hilliard, Capital Structure Swaps and Shareholders Wealth, European Financial Management, 2007.
7. Aswath Damodaran, Financing Innovations and Capital Structure Choices, Working Paper, Stern School of Business.
8. Mark Leary and Michael R. Roberts, Do Firms Rebalance their Capital Structure? Working Paper, Duke University, 2003.

Reference: Text Book, Chapter-17 & 18, No. of Sessions: 5

Module-9: Rewarding Policy –
Dividend Policy

Topics:

Dividend Policy and Company Value- Theory - Dividend Policy Does not Matter, Dividend Policy Matters – The Bird in the Hand Argument, The Tax Argument and Other Theoretical Issues; Factors Affecting Dividend Policy – Investment Opportunities, Expected Volatility of Future Earnings, Financial Flexibility, Tax Considerations, Floatation Costs, Contractual and Legal Restrictions; and Payout Policies – Types of Dividend Policies, Dividend versus other ways and means of rewarding shareholders; and Analysis of Dividend Safety.

Learning Outcomes:

The Student should be able to: compare theories of dividend policy and explain implications of each for share value given a description of a corporate dividend action; describe types of information (signals) that dividend initiations, increases, decreases, and omission may convey; explain how clientele effects and agency issues may affect a company's payout policy; explain factors that affect dividend policy; calculate and interpret the effective tax rate on a given currency unit of corporate earnings under double taxation, dividend imputation, and split-rate tax systems; compare stable dividend, constant dividend payout ratio, and residual dividend payout policies, and calculate the dividend under each policy; explain the choice between paying cash dividends and repurchasing shares; describe broad trends in corporate dividend policies; calculate and interpret dividend coverage ratio based on net income and free cash flow; and identify characteristics of companies that may not be able to sustain their cash dividend.

Assignment-5: Experiential Learning

Topic: Empirical study of determinants of Dividend Payout.

Learning outcomes: learn to choose dummy variables representing determinants and measure the most important determinants of capital structure of selected companies

Or

Topic: Assess the dividend decision by the firm using a framework

Learning outcomes: Learn to analyze the dividend decision made by the firm using a framework determined by calculating excess cash remaining for the shareholders after the payment of dividend and buyback and using a proxy for trust in the management.

Reference Article:

1. Aswath Damodaran, Beyond Cash Dividends: Buybacks, Spin Offs and Divestitures, Working Paper, Stern School of Business.
2. Kevin Chiang, Arman Kosedag and Bob G. Wood Jr The perception of dividends by professional investors, Managerial Finance, Vol. 32 No. 1, 2006.
3. Alon Brav, John R. Graham, Campbell R. Harvey, and Roni Michaely, Payout policy in the 21st century, Working Paper, September 7, 2004

4. David J. Denis , Why Do Firms Pay Dividends? International Evidence on the Determinants of Dividend Policy, Working Paper, May, 2007

Reference: Text Book, Chapter-16, No. of Sessions: 4

Total planned sessions: 42

6. **Evaluation Scheme:**

Component	**Duration**	**Weightage (%)**	**Date & Time**	**Remarks**
Mid Sem Test	90 Minutes	30	11/10 - 4.00 - 5.30PM	CB
Quiz (2)		20		CB
Assignments		10		OB
Comprehensive Examination	180 Minutes	40	13/12 AN	30%CB + 10%OB

7 . **Chamber consultation hour:**

Dr. Nivedita Sinha: With prior intimation during office hours

8. **Notices:**

Notices will be displayed on Course Management System (CMS)

9. **Make-up Policy:** Make-up for Midsem and Comprehensive exam will be approved only for students who give a prior (on or before test date) intimation with a genuine reason. There will **not be** any Makeup for Quizzes as best 2 out of 3 quizzes will be considered.

10. **Academic Honesty and Integrity Policy:** Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable.

Dr. Nivedita Sinha

I/C, ECON F315