

University of Mumbai

MSc Finance

Programme Structure and Syllabus

Programme Structure

Code	Course Title	Contact Hours Per Week	Credits
Foundation Course			
PSFN-0T01	Basic Economics	6 Hours	...
PSFN-0T02	Basic Quantitative Methods	6 Hours	...
PSFN-0T03	Basic Accounting	6 Hours	...
PSFN-0T04	Basic Computing	6 Hours	...
Semester I			
PSFN-1T01	Economics	6 Hours	4 credits
PSFN-1T02	Quantitative Methods	6 Hours	4 credits
PSFN-1T03	Accounting and Financial Reporting	6 Hours	4 credits
PSFN-1T04	Financial Management	6 Hours	4 credits
PSFN-1P01	Practical 1: Quantitative Methods	3 Hours	4 credits
PSFN-1P02	Practical 2: Accounting and Financial Reporting	3 Hours	4 credits
Semester II			
PSFN-2T05	Corporate Governance & Regulatory Environment	6 Hours	4 credits
PSFN-2T06	Corporate Finance	6 Hours	4 credits
PSFN-2T07	Econometrics and Financial Modeling	6 Hours	4 credits
PSFN-2T08	Financial Markets and Institutions	6 Hours	4 credits
PSFN-2T09	Fixed Income Securities	6 Hours	4 credits
PSFN-2P03	Practical 3: Econometrics and Financial Modeling	3 Hours	2 credits
PSFN-2P04	Practical 4: Fixed Income Securities	3 Hours	2 credits
Semester III			
PSFN-3T10	Technical Analysis	6 Hours	4 credits
PSFN-3T11	Portfolio Analysis and Management	6 Hours	4 credits
PSFN-3T12	Derivatives	6 Hours	4 credits
PSFN-3P05	Practical 5: Technical Analysis	3 Hours	4 credits
PSFN-3P06	Practical 6: Portfolio Analysis and Management	3 Hours	4 credits
PSFN-3P07	Summer Project	...	4 credits
Semester IV			
PSFN-4T13	Mergers, Acquisitions and Corporate Restructuring	6 Hours	4 credits
PSFN-4T14	Structured Finance	6 Hours	4 credits
PSFN-4T15	Risk Management	6 Hours	4 credits
PSFN-4T16	International Finance	6 Hours	4 credits
PSFN-4P08	Dissertation	...	8 credits
Total Credits			96 credits

Foundation Course

Basic Economics

- 1 Nature, scope and methods of economics
- 2 Markets and Resource Allocation: Wants, limited resources and choice; Demand curves and functions; Supply curves and functions; Price determination; Changes in market price and quantity; Resource allocation in different economic systems.
- 3 Demand, Revenue and Consumer Behaviour: Price elasticity of demand; Price elasticity of demand (PED) and revenue; Total, average and marginal revenue; Elasticity and tax incidence; Other elasticity of demand; Veblen effect and consumer behaviour; Consumer surplus; consumer choice, utility, diminishing marginal utility, consumer choice and equilibrium, consumer surplus, indifference curve analysis.
- 4 Supply, Production and Cost: Factors of production; Combining factors of production: the laws of returns; Costs of production: short run; Costs of production: long run; Deciding whether to produce in the short run and the long run; Price elasticity of supply (PES); Outsourcing and cost; Governments, location and cost; Producer surplus.
- 5 Market Structures: Perfect competition; Contestable market theory; Monopoly; Monopolistic competition; Oligopoly.
- 6 Market Failure, Regulation and Competition: Types of market failure; Correcting market failures; Deregulation and privatisation; competition policy, overview of competition laws in India.
- 7 Money and Banking: The Origins of Money; Money Supply; Money Creation Process; Central Bank Tools for Changing the Money Supply.
- 8 Measuring Economic Performance: National Income Accounting; National income: definitions and measurement; National income data: international comparisons; Components of the circular flow; Equilibrium in the circular flow; Changes in national income; National income multiplier; Inflationary and deflationary gaps; Measuring Price Changes and the Unemployment Rate.
- 9 Economic Changes and Cycles: Inflation and Deflation; Business Cycles; Economic Growth; National Income Determination.

Required Text

Economics for Business and Management 3e by Griffiths and Wall, Pearson (2011).

Reference Text

Economics by N. Gregory Mankiw and Mark P. Taylor (2006), Thompson Learning.

Basic Quantitative Methods

- 1 Introductory Algebra
 - (a) Properties and Principles of Equations - Addition and Subtraction Properties of Equations; Multiplication and Division Properties of Equations; Using the Properties to Simplify Terms in Equations, including Variables; Transformation Principles; Solving Problems using Equations and Inequalities.
 - (b) Exponents and Roots - Bases, Factors, and Exponents; Expressing Exponents in Words; Negative Exponents and Negative Bases; Adding and Subtracting Numbers with Exponents; Multiplying and Dividing Numbers with Exponents.
 - (c) Polynomials - Adding and Subtracting Polynomials; Multiplying and Dividing Polynomials; The Product of Powers and the Power of a Product; Uses of Polynomials – Area and Volume Problems.
- 2 Linear Equations: Graphs of linear equations; Algebraic solution of simultaneous linear equations; Supply and demand analysis; Algebraic solution of simultaneous equations; Transposition of formulae; National income determination using linear equations.
- 3 Non-linear Equations: Quadratic functions; Revenue, cost and profit; Indices and logarithms; Exponential and natural logarithm functions.
- 4 Differentiation and Integration: The derivative of a function; Rules of differentiation; Marginal functions; Optimization of economic functions; derivative of the exponential and natural logarithm functions; Indefinite integration; Definite integration.
- 5 Combinatorial Problems: The Addition Principle; Tree Diagrams and the Multiplication Principle; Permutations and Combinations; Permutations with Repetitions.
- 6 Descriptive Statistics: Meaning and nature of statistics; sampling and data collection; presenting and describing small data sets; presenting and describing large data sets; measures of location; measures of variation; index numbers.
- 7 Probabilities: Relative Frequency and the Axioms of Probabilities; Probability Assignments by Combinatorial Methods; Independence; Conditional Probabilities; Theorem of Total Probability and the Theorem of Bayes. Probability Distributions: The binomial distribution; Poisson distribution; exponential distribution; normal distribution.
- 8 Modelling simple relationships

Relationships, functions and equations; Linear functions; Least-squares linear regression; appropriateness and correlation.

Required Texts

- Mathematics for Economics and Business 5e by Ian Jacques, FT Prentice Hall (2006).
- Statistics for Business and Economics by David R. Anderson, Dennis J. Sweeney, Thomas A. Williams, South Western Cengage Learning (2008).

Reference Text

Mathematics for Finance : An Introduction to Financial Engineering by Marek Capinski and Tomasz Zastawniak, published by Springer (2003).

Basic Accounting

- 1 Context and Purpose of Financial Accounting: Nature of financial and managerial accounting information; accounting profession and accounting careers; accounting equation; Core financial statements.
- 2 The Use of Double-Entry and accounting systems: Accounts, debits and credits; The journal; The general ledger; Trial balance; Computerized processing systems; T-Accounts; Double-entry book-keeping principles including the maintenance of records and sources of information; Recording Transactions and events - Sales and purchases; cash; stock; tangible fixed assets; depreciation; intangible fixed assets and amortisation; accruals and prepayments; debtors and creditors; provisions and contingencies; capital structure and finance costs.
- 3 Income Measurement: Measurement transactions and events; periodicity assumption and its accounting implications; Basic elements of revenue recognition; Basic elements of expense recognition; adjusting process and related entries; Accrual versus cash-basis accounting.
- 4 The Reporting Cycle: The reasons for and objectives of financial reporting; users' and stakeholders' needs; the main elements of financial reporting; Preparation of financial statements; accounting cycle and closing process; importance of business liquidity and the concept of an operating cycle.
- 5 Qualitative Characteristics of Financial Information: Define, understand, and apply accounting concepts, including concept of true and fair view, going concern, accruals, consistency, materiality, relevance, reliability, substance over form, neutrality, prudence, completeness, comparability, understandability, and business entity concept.
- 6 Managerial Accounting: Distinguishing characteristics of managerial accounting; Managerial accounting's role in planning, directing, and controlling; Key production components: direct materials, direct labor, and factory overhead; Product costs versus period costs; Categories of inventory for manufacturers and related financial statement implications.
- 6 Cost-Volume-Profit and Business Scalability: Cost behavior patterns and implications for managing a business; Methods of cost behavior analysis; Break-even and target income analysis; Cost and profit sensitivity analysis; Cost-volume-profit analysis for multiple products; Critical assumptions of cost-volume-profit modeling.

Required Texts

Financial and Management Accounting: An Introduction by Pauline Weetman, Pearson (2010).

Reference Text

Financial and Managerial Accounting by Charles Horngren & Walter Harrison (Prentice-Hall).

Basic Computing

- 1 Introduction to Computer Programming: Introduction to computers, programming and algorithms, Overview of Software Development; Phases in the Execution of a Computer Programme; Overview of Problem-Solving Techniques; Overview of Programme Types; Identifying the phases in the execution of a computer programme; Computer programmes and programming languages; Problem-solving techniques.
- 2 Using Data and Variables: Fundamental concepts of variables and data types; Using Variables; Using Operators; Using Programming Syntax.
- 3 Using Programme Logic: Common programming constructs; Control programme flow; Implementing conditional expressions and looping statements; Using Branching; Using Loops; Identifying Logic Errors.
- 4 Using Procedures and Functions: Use of procedures and functions to create more modular computer programmes; Arguments and parameters; Identifying Functions; Passing Arguments to a Procedure.
- 5 Developing a User Interface: Designing user interfaces for software applications; Best practices for user interface design; Identify the features of a good user interface; Build Windows-based and Web-based user interfaces.
- 6 Programming Approaches: Common programming methodologies; procedural programming; object-oriented programming; Using the Procedural Programming Approach; Using the Object-Oriented Programming Approach; Examining Classes; Features and advantages of object-oriented programming.
- 7 Software Development Process: Phases of the software development lifecycle; Introduction to the Unified Modeling Language; Developing Use-Case Diagrams; Examining Other UML Diagrams; Introduction to object oriented programming (OOP) Taxonomies, inheritance, modularity and reusability; Introduction to advanced data structures and classes methods and attributes, public, private and protected.
- 8 Introduction to C/C++ ; Basic I/O, variables, conditional statements; loops;and functions, scope, header files, break, continue, Exception handling; Function variables: scope, visibility and lifetime Call by value/call by reference; Arrays, strings and pointers Static versus dynamic memory allocation, multidimensional arrays.

Required Text

Concepts, Techniques, and Models of Computer Programming by Peter Van Roy and Seif Haridi, MIT Press (2004).

Reference Text

Problem Solving and Programming Concepts by Maureen Sprankle, Jim Hubbard (Prentice Hall) 2008.

Semester I

Economics

1 Microeconomics

Consumer Theory: Choice, Preferences, Utility; Demand, Revealed Preferences, Comparative Statics; Consumer Surplus, Aggregation; Variations to the Basic Choice Model (Time, Uncertainty). *Producer Theory:* Technology, Profit Maximization, Cost Minimization; Supply, Aggregation Markets; Monopoly; Oligopoly and Game Theory; Walrasian Equilibrium. *Market Failures:* Externalities; Public Goods; Small Number of Agents, Nash Bargaining. *Asymmetric Information:* Adverse Selection, Moral Hazard, Principal-Agent Model; Auction Design; Voting and Other Applications.

2 Macroeconomics

An overview of the modern market economy as a system for dealing with the problem of scarcity. The analysis of relationships among such variables as national income, employment, inflation and the quantity of money.

Managing aggregate demand; fiscal policy; money and the banking system; monetary policy; the debate over monetary and fiscal policy; budget deficits in the short and long run; trade-off between inflation and unemployment.

4 International Economics

Trade Theories: Ricardian Trade Model; Modern Trade Theory; Trade and Income Distribution; Alternative Trade Theories. *Trade Policy:* Commercial Policy: Tariffs and Nontariff Trade Barriers; Political Economy of Trade Policy; Economic Integration (Free Trade Agreements); International Factor Movements and Multinational Enterprises; Balance of Payments; Foreign Exchange Market; Exchange Rate Determination; Modern Exchange Rate System and Policies.

5 Financial Economics

Fundamental Theory of Finance: Absence of Arbitrage and Efficient Markets; Existence of Positive Linear Pricing Rule; Risk Neutral (Martingale) Probabilities and State Pricing. *Preferences and Uncertainty:* Expected Utility Theory; Linear Risk Tolerance Preferences; Jensen's Inequality and Risk Aversion; Ordering Preferences by Risk Aversion; Stochastic Dominance; Insurance and Certainty Equivalence; Alternative Psychological and Behavioral Approaches.

Required Texts

Economics by N. Gregory Mankiw and Mark P. Taylor (2006), Thompson Learning.

Reference Text

- Intermediate Microeconomics 7e by Varian, Hal R., W.W. Norton (2005).
- Macroeconomics 6e by Abel, Bernanke, and Croushore, Prentice Hall (2007).
- International Economics 13e by Robert J. Carbaugh ITP (2010).
- Financial Economics 2e by Z. Bodie (2008), Pearson Education India.

Quantitative Methods

- 1 *Review of basic probability models*; combinatorics; random variables; discrete and continuous probability distributions.
- 2 *Generating Functions*: Discrete Distributions; Branching Processes; Continuous Densities.
- 3 *Markov Chains*: Introduction; Absorbing Markov Chains; Ergodic Markov Chains; Fundamental Limit Theorem; Mean First Passage Time.
- 4 *Random Walks*: Random Walks in Euclidean Space; Gambler's Ruin; Arc Sine Laws
- 5 *Inferential Statistics*: Estimating and Confidence intervals; Hypothesis testing; Non-parametric tests.
- 6 *Financial Calculus*: Taylor series; Ordinary differential equations; Similarity solutions; Brownian motion; Stochastic differential equations; Itô's lemma; Continuous-time stochastic differential equations as discrete-time processes; Correlated random walks; Using Itô's lemma to manipulate stochastic differential equations.
- 7 *Mathematical Programming*: Linear Programming; Solving Linear Programs graphically; Simplex Method; An introduction to non-linear programming.

Required Texts

- Probability and Random Processes by Grimmett and Stirzaker, Oxford University Press (1997).
- Time Series Analysis by J.D. Hamilton, Princeton University Press (1994).
- Quantitative Finance 2e by Paul Wilmott, John Wiley (2007)
- Mathematics for Finance by Marek Capiński and Tomasz Zastawniak, Springer (2003).

Reference Text

Methods of Mathematical Finance by Ioannis Karatzas, Steven E. Shreve (Springer) 2011.

Accounting, Financial Reporting & Analysis

- 1 Context and Purpose of Financial Reporting: The reasons for and objectives of financial reporting; users' and stakeholders' needs; the main elements of financial reporting.
- 2 The qualitative characteristics of financial information: Define, understand, and apply accounting concepts, including concept of true and fair view, going concern, accruals, consistency, materiality, relevance, reliability, substance over form, neutrality, prudence, completeness, comparability, understandability, and business entity concept.
- 3 Regulatory Framework of Accounting: Reasons for existence of a regulatory framework; legal provisions relating to accounting; setting Indian accounting standards, convergence of international accounting standards, International Financial Reporting Standards (IFRS).
- 4 Principles of Taxation: Principles of taxation, concepts of tax evasion, tax avoidance, and tax planning, tax havens, overview of income tax, accounting for income tax, deferred tax assets, and deferred tax liability.
- 5 Accounting and Analysis of Asset: Historical cost and conservatism, asset reporting challenges, common misconceptions about asset accounting.
- 6 Accounting and Analysis of Liability and Equity: Liability definition and reporting challenges; common misconceptions about liability accounting; equity definition and reporting challenges.
- 8 Revenue Analysis: Revenue recognition rule, revenue recognition challenges
- 9 Expense Analysis: Matching and conservatism, expense reporting challenges.
- 10 Credit Analysis and Distress Prediction: Credit analysis process, prediction of distress and turnaround.
- 11 Business Combinations: The concept and principles of a group; concept of consolidated financial statements; preparation of consolidated financial statements.
- 12 Interpretations of financial statements: Ratio analysis; cash flow analysis; funds flow analysis; value added statements; limitations of financial statements; Calculation and interpretation of accounting ratios and trends to address users' and stakeholders' needs; limitations of interpretation techniques.

Required Texts

Financial Reporting and Analysis by Lawrence Revsine, Daniel Collins, Bruce Johnson, Fred Mittelstaedt McGraw-Hill (2011).

Reference Text

International Financial Reporting and Analysis by Alexander, Britton, Jorissen Thomson (2007).

Financial Management

- 1 Introduction: Role of the corporate financial manager (CFO); corporate finance decisions; goals of firm - profit maximization v. shareholders' wealth maximization; basic responsibilities of financial managers; social responsibility of the firm; agency relationships and conflicts.
- 2 Environment of finance: Financial markets – capital markets (equity markets, debt market), money markets, foreign exchange market, and derivatives markets; term loans and leases; accounting treatment of leases; convertibles, and warrants.
- 3 Valuation Concepts: Future values and compound interest; present values; level cash flows: perpetuities and annuities; valuation of long-term securities; risk and return; measuring portfolio risk.
- 4 Financial Planning: Introduction to financial planning; financial planning models; components of a financial planning model; pitfalls in model design; role of financial planning models; external financing and growth; deferred taxes and financial analysis; sustainable growth modeling.
- 5 Working Capital Management and Short-Term Planning: Components of working capital, working capital and the cash conversion cycle, working capital trade-off; links between long-term and short-term financing; tracing changes in cash and working capital; cash budgeting, forecast sources of cash, forecast uses of cash, a short-term financing plan, options for short-term financing, evaluating the plan, sources of short-term financing; cash management, management of account receivables.
- 6 Investment in Capital Assets: Capital budgeting and estimating cash flows; capital budgeting techniques; multiple internal rates of return; replacement chain analysis; risk and managerial options in capital budgeting.
- 7 Cost of Capital, Capital Structure, and Dividend Policy: Required returns and the cost of capital; operating and financial leverage; capital structure determination; theories of capital structure; dividend policy; theories of relevance and irrelevance of dividend policy.

Required Text

Fundamentals of Financial Management by Eugene F. Brigham, Joel F. Houston (2011), South Western (Cengage Learning)

Reference Text

Fundamentals of Financial Management by James C. Van Horne, John M. Wachowicz (2008), Prentice Hall.

Practicals 1: Quantitative Methods

The application of the following topics to real world issues in Finance:

- 1 *Generating Functions*: Discrete Distributions; Branching Processes; Continuous Densities.
- 2 *Markov Chains*: Introduction; Absorbing Markov Chains; Ergodic Markov Chains; Fundamental Limit Theorem; Mean First Passage Time.
- 3 *Random Walks*: Random Walks in Euclidean Space; Gambler's Ruin; Arc Sine Laws
- 4 *Inferential Statistics*: Estimating and Confidence intervals; Hypothesis testing; Non-parametric tests.
- 5 *Financial Calculus*: Taylor series; Ordinary differential equations; Similarity solutions; Brownian motion; Stochastic differential equations; Itô's lemma; Continuous-time stochastic differential equations as discrete-time processes; Correlated random walks; Using Itô's lemma to manipulate stochastic differential equations.
- 6 *Mathematical Programming*: Linear Programming; Solving Linear Programs graphically; Simplex Method; An introduction to non-linear programming.

Practicals 2: Accounting and Financial Reporting

- 1 Analysis of an annual report of a listed company.
- 2 Analysis of a prospectus issued by a company launching an initial public offering (IPO)
- 3 Analysis of an industry report prepared by a major brokerage house.

Semester II

Corporate Governance and Regulatory Environment of Finance

- 1 Corporate Governance: Objectives; definitions and importance of corporate governance; reputation, competition and corporate governance; corporate ethics; corporate governance and corporate responsibility; globalization and corporate governance; Models of corporate governance; mechanisms of corporate governance.
- 2 Shareholders and Stakeholders: Shareholder rights; equitable treatment; responsibilities of shareholders; minority shareholders' protection; stakeholder protection.
- 3 Board of Directors: Structure and independence of the board; responsibilities and duties of the board; selection, remuneration and evaluation of the board; board committees; the board and the management.
- 4 Audit Committee: Organization of audit committee; responsibilities of the audit committee; working with auditors and management.
- 5 Code of Corporate Governance: SEBI Code of Corporate Governance (Narayanmurthy Committee Report); Ministry of Finance (Nareshchandra Committee Report); US Sarbanes-Oxley Act of 2002; The UK Corporate Responsibility Act 2002.
- 6 Economic Rationale of Financial Regulation: Externalities; market imperfections and failures; economies of scale in monitoring; moral hazard; mandatory versus voluntary disclosure; regulation and competition; alternative approaches to regulation.
- 7 Legal Framework of Capital Markets: Securities Contracts (Regulation) Act, 1956, and Securities Contracts (Regulation) Rules, 1957; Foreign Exchange Management Act (FEMA); Overview of relevant provisions of the Companies Act, 1956, Indian Stamp Act, Registration Act, Competition Act; , Stock exchanges – trading rules, listing agreement, enforcement of listing compliances; Banking Regulation Act; Reserve Bank (Board for Financial Supervision (BFS)) Regulations.
- 8 SEBI Regulations and Guidelines: SEBI Act, 1992; SEBI (ICDR) Regulations; SEBI (Insider Trading) Regulations; SEBI (Substantial Acquisition of Shares and Take Over) Regulations; SEBI (Buyback of Securities) Regulations; SEBI (Foreign Institutional Investors) Regulations.
- 9 Regulation of Mutual Funds: SEBI (Mutual Funds) Regulations; taxation of a mutual fund - resident unit holders, non-resident individual unit holders, non-resident unit holders being a company; Regulation of Overseas Investment in the Domestic Mutual Fund Sector - Setting up an AMC, Investing via a Domestic Mutual Fund, Investing as a FII in an Indian mutual fund, role of self-regulatory organisations.
- 10 Overview of Regulatory Bodies: Reserve Bank of India, Securities Exchange Board of India, Forward Market Commission, Insurance Regulatory Development Authority, Provident Fund Regulatory and Development Authority, Ministry of Finance, Ministry of Corporate Affairs, Registrar of Companies.
- 11 International Financial Regulation: Challenges of international regulation of financial markets; overview of financial regulation in USA, UK, EU.

Required Text

- Corporate Governance by Robert A. G. Monks and Nell Minow (2011), Wiley.
- Company Law: Theory, Structure, & Operation by Cheffins (1997), Clarendon Press.
- Global financial regulation by Howard Davies, David Green (2008) Polity Press.

Reference Text

- Sebi Manual 16e Taxmann Publications Pvt. Ltd, 2011
- Foreign Exchange Management Manual Taxmann Publications Pvt. Ltd, 2011
- Perspectives in Company law and Financial Regulation by Christoph Van der Elst, De Wulf, Michel Tison, Reinhard Steennot (2011), Cambridge University Press.

Corporate Finance

- 1 Framework for Financial Decisions: An overview of financial decisions; the financial environment; bond and share valuation.
- 2 Investment Decisions and Strategies: Investment appraisal methods; project appraisal – applications; investment strategy and process.
- 3 Value, Risk and the Required Return: Analysing investment risk; identifying and valuing options; relationships between investments: portfolio theory; setting the risk premium: the capital asset pricing model; the required rate of return on investment; enterprise value and equity value.
- 4 Valuation: Conceptual framework of valuation; approaches and methods of valuation - asset-based approach, earnings based approach, discounted cash flow approach, market value based approach, relative valuation approach, real options approach, selection of approach; applications of valuation methods to valuation of different types of companies.
- 5 Short-Term Financing and Policies: Treasury management and working capital policy; short-term asset management; short - and medium-term finance;
- 6 Strategic financial decisions: Long-term finance; returning value to shareholders: the dividend decision; capital structure and the required return; relevance of capital structure; acquisitions and restructuring; Operating Leverage; Dividend Policy; Pricing Strategy; Asset-Liability Management.
- 7 Corporate Performance Management: Execution Problem; Balanced Scorecard; Real-time Financial Systems: Corporate Performance Management (CPM); Integrated Financial Management
- 8 International Financial Management: Overview of market for foreign currencies; foreign exchange risks – transaction, translation, and economic risks; managing currency risk; foreign investment decisions.

Required Text

Corporate Finance by Stephen A. Ross, Randolph Westerfield, Jeffrey Jaffe (2006), McGraw-Hill/Irwin.

Reference Text

Corporate Finance: Linking Theory to What Companies Do by John Graham, Scott B. Smart, William L. Megginson (2008), South Western Cengage Learning.

Econometrics & Financial Modelling

A Econometrics

- 1 Introduction to econometrics.
- 2 Univariate regression model.
- 3 Multivariate regression model.
- 4 Dummy variables, heteroskedasticity, endogeneity.
- 5 Time series data analysis
- 6 Times series regression model
- 7 Panel data analysis: Simultaneous use of cross sectional and time series data
- 8 Endogeneity: Instrumental variables and simultaneous equations.

B Financial Modelling

- 1 Preliminaries: Introduction financial modelling; objectives of financial modelling; spreadsheet features, techniques; best practices in spreadsheet design.
- 2 Systematic Design Method: Model Design and structure; Building business case models; spreadsheet techniques and methods.
- 3 Auditing and Testing: Essential testing and auditing techniques; Testing financial analysis model with cash flows and ratios; Debugging and checking a financial model.
- 4 Macros and Security: Writing and auditing and macros; Spreadsheet security.
- 5 Forecasting Models: Review of forecasting methods; financial "drivers"; Adding forecasts to the case models.
- 6 Risk Techniques: Risk and multiple answers; Scenario techniques; Advanced financial functions; adding sensitivity to the case model; Advanced scenario methods; Composite methods.
- 7 Optimisation and Targeting: Overview of optimisation and targeting; Goal seek and Solver methods; optimising the case model.
- 8 Management Reporting: Requirement to consolidate and summarise data; consolidating data from different sources; spreadsheet report managers; pivot tables; Techniques for summarising data; producing a management analysis.
- 9 Model Completion: Model review; Documentation; Final audit.

Required Texts

- Introductory Econometrics 4e by Wooldridge, J. South-Western Cengage Learning (2009).
- Financial Modeling 3e by S Benninga, MIT Press (2008).

Reference Text

Building Financial Models by John Tjia (McGraw-Hill) 2003

Financial Markets and Institutions

- 1 Introduction: Determination of Interest Rates; Interest Rates and Security Valuation; Monetary Policy, and Interest Rates.
- 2 Securities Markets: Money Markets; Bond Markets; Mortgage Markets; Stock Markets; Foreign Exchange Markets; Derivative Securities Markets.
- 3 Banks: Industry Overview; commercial banks, cooperative banks; microfinance institutions; Banks' Financial Statements and Analysis; Regulation of banks.
- 4 Nonbank Financial Institutions: Lending Institutions; Finance Companies; NBFCs; Insurance Companies; depositories and depository participants, clearing corporations, Brokerage Firms; Merchant and Investment Banks; Mutual Funds and Hedge Funds; Pension Funds; registrars and transfer agents, credit rating agencies, portfolio management services, asset reconstruction companies; money market institutions – primary dealers, DFHI, CCIL, FIMMDA; insurance institutions – life insurance companies, non-life insurance companies, actuaries.
- 5 Regulatory bodies – Self Regulatory Organisation (SROs), SEBI, RBI, IRDA. International financial institutions – Federal Reserve Bank (US); Bank of England; European Central Bank; Securities Exchange Commission (SEC).
- 6 Risk Management In Financial Institutions: Types of Risks Incurred by Financial Institutions; Managing Credit Risk on the Balance Sheet; Managing Liquidity Risk on the Balance Sheet; Managing Interest Rate Risk and Insolvency Risk on the Balance Sheet; Managing Risk off the Balance Sheet with Derivative Securities; Managing Risk off the Balance Sheet with Loan Sales and Securitization.

Required Text

Financial Markets and Institutions by Bhole, Tata McGraw-Hill (2009).

Reference Text

Financial Markets and Institutions 4/e by Saunders and Cornett, McGraw-Hill (2009).

Fixed Income Securities Market

- 1 Understanding Forward Rate Analysis and Yield curves
Term structure of interest rates and forward rate analysis; yield measures; analysing changes in the yield curve.

- 2 Framework for Analysing Bonds
Cash flows for typical bond structures; time value of money; annuities; bond yields: coupon, current, yield to maturity (YTM), yield to call, realised yield; yield conventions; yield decomposition: current yield, interest upon interest, pull-to-maturity; duration; modified duration; convexity and relative convexity. yield curve analysis - coupon yield curve and the spot curve, interpretations of the yield curve, pricing bonds using the yield curve; implications of duration and convexity for bond analysis; using horizon analysis to evaluate bond strategies; analysis of bonds with embedded options; asset and mortgage backed security analysis.

- 3 Risk Analysis for Bonds
Sources of risk - credit risk; interest rate risks; reinvestment risks; liquidity; calls on bonds; analysis of corporate bond risk; analysing rating agencies criteria – Moodys, Standard and Poors; risks involved in treasury securities; price volatility and interest rate volatility; sources of interest rate volatility; key ratios for interest rate sensitivity.

- 4 Fixed Income Strategies
Passive fixed income strategies; active fixed income strategies; common strategies - buy and hold, bullets and barbells, butterflies, ladders, immunization, hedging.

- 5 Fixed Income Fund Management Practice
Constructing a fixed income portfolio, importance of asset allocation, funding liabilities, asset liability management (ALM), balanced fund approach.

Required Texts

- Fixed Income Securities: Tools for Today's Markets, 2nd ed. by Bruce Tuckman, Wiley.
- Understanding and Managing Interest Rate Risks, by Ren-Raw Chen, World Scientific.
- Options, Futures, and Other Derivatives 6e by John C. Hull, Pearson/Prentice Hall.

Reference Texts

- Credit Derivatives, by M. Ansen, F. Fabozzi, M. Choudhry, and R.-R. Chen, Wiley.
- Fixed Income Securities: Valuation, Risk, and Risk Management by Pietro Veronesi (2010), John Wiley and Sons.

Practicals 3: Econometrics and Financial Modeling

The application of the following topics to real world issues in Finance:

- 1 A Econometrics
 - 1 Univariate regression model.
 - 3 Multivariate regression model.
 - 4 Dummy variables, heteroskedasticity, endogeneity.
 - 5 Time series data analysis
 - 6 Times series regression model
 - 7 Panel data analysis: Simultaneous use of cross sectional and time series data
 - 8 Endogeneity: Instrumental variables and simultaneous equations.
- B Financial Modelling
 - 1 Forecasting Models: Review of forecasting methods; financial "drivers"; Adding forecasts to the case models.
 - 2 Risk Techniques: Risk and multiple answers; Scenario techniques; Advanced financial functions; adding sensitivity to the case model; Advanced scenario methods; Composite methods.
 - 3 Optimisation and Targeting: Overview of optimisation and targeting; Goal seek and Solver methods; optimising the case model.
 - 4 Management Reporting: Requirement to consolidate and summarise data; consolidating data from different sources; spreadsheet report managers; pivot tables; Techniques for summarising data; producing a management analysis.

Practicals 4: Fixed Income Securities Analysis

Application of the following topics for solving real world problems in the area of fixed income securities market:

1 Analysing Bonds

Cash flows for typical bond structures; time value of money; annuities; bond yields: coupon, current, yield to maturity (YTM), yield to call, realised yield; yield conventions; yield decomposition: current yield, interest upon interest, pull-to-maturity; duration; modified duration; convexity and relative convexity. yield curve analysis - coupon yield curve and the spot curve, interpretations of the yield curve, pricing bonds using the yield curve; implications of duration and convexity for bond analysis; using horizon analysis to evaluate bond strategies; analysis of bonds with embedded options; asset and mortgage backed security analysis.

2 Risk Analysis for Bonds

Sources of risk - credit risk; interest rate risks; reinvestment risks; liquidity; calls on bonds; analysis of corporate bond risk; analysing rating agencies criteria – Moodys, Standard and Poors; risks involved in treasury securities; price volatility and interest rate volatility; sources of interest rate volatility; key ratios for interest rate sensitivity.

3 Fixed Income Strategies

Passive fixed income strategies; active fixed income strategies; common strategies - buy and hold, bullets and barbells, butterflies, ladders, immunization, hedging.

4 Fixed Income Fund Management Practice

Constructing a fixed income portfolio, importance of asset allocation, funding liabilities, asset liability management (ALM), balanced fund approach.

Semester III

Technical Analysis

- 1 Background and Basics
Technical analysis as an integral part of market analysis; History of technical analysis.
- 2 Constructing and Interpreting Charts
Tools - the construction of different types of charts - line chart, bar chart, point and figure chart, candlestick charts etc.; What to Look for on the Charts.
- 3 Trends
Basics of pattern recognition; determination of price trends; support and resistance levels; real time presentations at end of session; moving averages; gaps; volume; comparative relative strength.
- 4 Phases of Price Activity and Pattern Recognition
Phases of price activity - pattern recognition on bar charts, pattern recognition on point and figure charts, pattern recognition on candlestick charting; turning points; continuation patterns; climax; candlesticks; volume; point and figure; behavioral; pairs trading / derivatives.
- 5 Technical Analysis Theories
Dow theory, Elliott wave theory, Fibonacci sequence, Gann analysis, Cycle analysis.
- 6 Technical Indicators
RSI indicator; Stochastics; Rate of change (RoC) indicator; MACD; Bollinger bands; Moving averages.
- 7 Sentimental Indicators
Volatility index (VIX), Put/call ratio, Bull/bear indicators, Dow's psychology of bull and bear markets, Insider activity
- 8 Applying technical analysis to bonds, currencies, futures and options.
- 9 Technical Analysis and Portfolio Management
Technical analysis tools for sentiment; Efficient market considerations; Short versus long trading strategies; Risk tools; Advanced derivative use and technical analysis; Quant tools.

Required Texts

- Technical Analysis: An Introduction to the Core Concepts by Mark Mobius (2011), John Wiley & Sons.
- Technical Analysis of Stock Trends by Edwards and Magee, CRC Press, 2007.

Reference Text

Technical Analysis: The Complete Resource for Financial Market Technicians by Charles D. Kirkpatrick, Julie R. Dahlquist (2011), Pearson Education.

Portfolio Analysis and Management

- 1 Efficient Market Hypothesis (EMH)
Efficient market hypothesis conceptual underpinnings; empirical studies and anomalies of efficiency; implications of the EMH for investment analysis.
- 2 Modern Portfolio Theory
Measures of uncertainty and risk; Markowitz (Mean Variance) Efficient Frontier; introduction of a risk free asset; Capital Asset Pricing Model – CAPM; Critique of CAPM; arbitrage pricing theory – APT; single index models for portfolio construction.
- 3 Investment policy and portfolio creation
A framework for investment policy; investment policies and practices for institutions and individuals; monitoring and re-balancing asset allocation with respect to risk, return and investment policy; case studies in investment management; investment strategies - passive to active; structuring an international investment strategy.
- 4 Performance Attribution Analysis
Evaluation of portfolio performance; traditional measures – Sharpe, Treynor, Jensen; decomposition of portfolio performance; cases in portfolio decomposition; performance attribution support systems; value at risk (VaR) measurement.
- 5 Measurement and Presentation of Portfolio Returns
Global investment performance standards.
- 6 Stock Market Indices
Types of indices; Index versions; free-float indices; Weighting, capitalisation-weighted index; Criticism of capitalization-weighting; Indices and passive investment management. Applications - overview of NSE and BSE indices.

Required Texts

Modern Portfolio Theory and Investment Analysis by Edwin J. Elton, Martin J. Gruber, Stephen J. Brown, William N. Goetzmann (2010), John Wiley and Sons.

Reference Text

Quantitative Methods for Portfolio Analysis by Takeaki Kariya (1993), Kluwer Academic Publishers.

Derivatives

- 1 Evolution of Derivatives: Concept of derivatives, definitions, purposes and criticisms; derivative markets; past and present; difference between exchange traded and OTC derivatives; derivative market participants - hedgers, arbitrageurs and speculators.
- 2 Forward Market and Products: Structure and role of global forward market; concept, characteristics and definition; types of forward contracts - equity forward, currency forward, interest rate forward, forward rate agreement; valuation of forward; generic valuation principles; valuation of individual product; hedging using forwards; credit risk and forward contracts.
- 3 Futures Market and Products: Structure and role of global future market including leading futures exchanges; concept, characteristics and definition; trading mechanism and concept of margins; futures vs. forward; types of futures contracts - stock futures, index futures, currency futures, interest rate futures, commodity futures; generic valuation principles; valuation of individual futures product; basis risk; daily and final settlement price; hedging using futures; speculation using futures.
- 4 Option Market and Products: Structure and role of global option market including OTC and leading; options exchanges; concept, characteristics and definition; option terminology; American style and European style option; option payoffs; trading mechanism and concept of margins; futures vs options; types of options - stock options, index options, currency options, commodity options, options on futures, interest rate options;
- 5 Option Pricing: Factors affecting option pricing, upper and lower bounds of option prices, binomial model, Black and Scholes option pricing model, option Greeks (delta, gamma, theta, vega, rho), delta hedging; option strategies (spreads, straddles and strangles); exotic options - hedging with exotic options, pricing of exotic options.
- 6 Swaps: Concept, characteristics and definition, Types of swaps, Interest rate swap (IRS), Currency swap, Equity swap, Other types of swaps, valuation of swaps, Swaption, credit risk and swaps, strategies and applications of swaps.
- 7 Credit Derivatives: Concept role and structure of credit derivatives, Types of credit derivative, credit default swap, total return swap, credit spread option, Credit link notes, collateralized debt obligations.
- 8 Accounting and taxation of derivative instruments.

Required Books

Options, Futures and Other Derivatives by John C. Hull (2010), Prentice Hall India

Reference Text

Derivatives: Valuation and Risk Management by David A. Dufresne and Thomas W. Miller (2002), Oxford University Press.

Practicals 5: Technical Analysis

Application of the following topics for solving real world problems in the area of technical analysis:

- 1 Constructing and Interpreting Charts: Tools - the construction of different types of charts - line chart, bar chart, point and figure chart, candlestick charts etc.; What to Look for on the Charts.
- 2 Trends: Basics of pattern recognition; determination of price trends; support and resistance levels; real time presentations at end of session; moving averages; gaps; volume; comparative relative strength.
- 3 Phases of Price Activity and Pattern Recognition: Phases of price activity - pattern recognition on bar charts, pattern recognition on point and figure charts, pattern recognition on candlestick charting; turning points; continuation patterns; climax; candlesticks; volume; point and figure; behavioral; pairs trading / derivatives.
- 4 Technical Analysis Theories: Dow theory, Elliott wave theory, Fibonacci sequence, Gann analysis, Cycle analysis.
- 5 Technical Indicators: RSI indicator; Stochastics; Rate of change (RoC) indicator; MACD; Bollinger bands; Moving averages.
- 6 Sentimental Indicators: Volatility index (VIX), Put/call ratio, Bull/bear indicators, Dow's psychology of bull and bear markets, Insider activity
- 7 Applying technical analysis to bonds, currencies, futures and options.

Practicals 6: Portfolio Analysis

Application of the following topics for solving real world problems in the area of portfolio analysis:

- 1 Efficient Market Hypothesis (EMH)
- 2 Modern Portfolio Theory
- 3 Investment policy and portfolio creation
- 4 Performance Attribution Analysis
- 5 Measurement and Presentation of Portfolio Returns
- 6 Stock Market Indices

Semester IV

Mergers, Acquisitions and Corporate Restructuring

1 Strategies for Value Creation

M&A as a tool of competitive advantage. Performance of M&A: why do acquisitions fail? Strategic, financial and managerial drivers of M&A activity. Reasons for M&A and its influence on shareholder value. Types of corporate control strategies. Major forces driving domestic and international M&A activity. Major players on the M&A landscape and their incentives. Analysis of successful and failed M&As. Likely future of M&A activity.

2 Stages of an M&A Transaction.

Overview of the stages of an M&A transaction, from origination to closing. Origination of M&A ideas, clarifying strategy, valuing the target, carrying out due diligence assessment and developing an implementation plan. Process timeline for an M&A transaction. Role of synergies in M&A analysis. Performance of pro forma “merger consequences” analysis. Tactical considerations before approaching a potential target.

3 Mechanics of M&A

Setting up an M&A function; Aligning M&A with business strategy; Active deal generation; Other sources of deals; Typical deal stages; Deal documentation; Valuations and deal returns; Due Diligence; Post acquisition integration.

4 Valuation for Mergers and Acquisition

Valuation techniques appropriate to M&A analysis. Valuing synergies. Control and liquidity discount/premium. Pricing acquisitions. Meeting the challenges of sum of the parts valuation. Estimating the cost of capital for business units. Estimating the business unit cost of capital. Peer group analysis and benchmarking. Applying peer group analysis. Valuing the business units. Estimating a target capital structure² Valuation for mergers and acquisitions.

5 Financial Strategy

The M&A as an effective corporate finance strategy. Build or buy decisions: striking the right balance. Leveraging financial assets through an M&A. Preparing the stage for a successful acquisition. Financial and non-financial criteria for acquisitions. Pitfalls and rebalancing the risk reward ratio. Cost reducing and revenue enhancing synergies. Purchasers motivated by diversification. The approach and requirements of financial purchasers. Valuing a consideration other than cash

6 Legal aspects of M&A

- *Company Law Provisions*: Statutory framework for compromises, arrangements and amalgamations. Drafting of the scheme. Approval of the scheme by members and creditors. Court’s sanction of the scheme. Legal aspects of valuation of shares and share-exchange ratios. Issue and allotment of shares. Standard time-schedule for procedural formalities of completing an M&A transaction. Takeover by acquisition of shares.

- *SEBI (Substantial Acquisition of Shares & Takeover Code) Provisions*: Overview of the SEBI (Substantial Acquisition of Shares & Takeover Code). Takeover of an unlisted company by acquiring controlling interest. Takeover of a listed company. Procedural formalities.
- *Competition Law Provisions*. Overview of the Competition Act, 2002. Anticompetitive agreements. Abuse of dominance. Meaning and definition of combinations. Concept of void combinations and exceptions. Market dominance of a group in and outside India. Concept of control of affairs or management. Overview of the role, powers and functions of the Competition Commission of India.
- *FEMA Provisions Relating To Cross-Border M&A*: Overview of provisions of the Foreign Exchange Management Act, 1999 relating to issue and transfer of securities between residents and non-residents, external commercial borrowings, American depository receipts, overseas investment by Indian companies, foreign direct investments, and wholly-owned subsidiaries of Indian companies abroad.

7 Accounting for M&A

Overview of Accounting Standard 14 and international accounting standards relating to M&A. Equity method of accounting for investments. Accounting for minority interest. Treatment of minority interest for enterprise valuation. Accounting for ESOPs, restructuring charges, discontinuance of operations. Recognizing asset impairments.

8 Tax Aspects OF M&A

Tax aspects of choice of entity. Definition of amalgamation under Income Tax Act, 1962. Amortization of certain preliminary expenses. Tax treatment of expenditure of amalgamation, purchase of patents, copyrights, scientific research. Cost of assets acquired through M&A. Capital gains on assets transferred in M&A. Carry forward and set off of accumulated losses and unabsorbed depreciation. Deferred income taxes and reporting of income tax. Tax issue in structuring debt financing. Estimating the tax bases of target company's assets. Tax effects of ESOPs.

9 Developing the Acquisition Integration Framework

Prioritizing integration issues and ensuring buy-in by both organizations. Integrating organizations and major projects. The integration framework and its elements, and how its use will benefit you. Facilitating individual and small task group working relationships. Identifying the connections between each element and acquisition strategic intent. Achieving common focus by reaching agreement on the details of each element.

Recommended Texts

- Mergers & Acquisitions by J. Fred Weston, Samuel C. Weaver (2010), McGraw-Hill Publications
- Mergers and Acquisitions: A Step-by-Step Legal and Practical Guide by Edwin L. Miller, Jr. (2008), John Wiley and Sons.

Reference Text

Mergers, Acquisitions, and Other Restructuring Activities by Donald M. DePamphilis (2010) Academic Press

Structured Finance

- 1 Introduction to structured finance.
Financing with Asset-Backed Securities
- 2 ABS: Ratings and Cost-Benefit Analysis
Collateralized Debt Obligations: Structure and Pricing; Collateralized Loan Obligations
- 3 Credit swaps
Credit Derivatives; Synthetic ABS and related instruments.
- 4 MTNs and equity-linked structured notes
- 5 Design and pricing of convertible, hybrids and mezzanine debt
- 6 Structuring leveraged finance
- 7 Economics of Financial Innovation
Competition and the Product Cycle in Financial Innovations; Sources of Innovations;
Transactions and Monitoring Costs; Regulation, Taxes, Constraints; Market Segmentation;
- 8 Understanding New Instruments
The Building Block Approach; Hedging and Managing New Instruments.

Required Text

Elements of Structured Finance by Ann Rutledge, Sylvain Raines (2009), Oxford University Press.

Reference Text

Structured Finance: Techniques, Products and Market by Stefano Gatti (2005), Springer.

Risk Management

1 Introduction

Overview of financial risk management and its importance in today's global marketplace; Need for understanding, measuring, and managing risk; market and investment risk, overview of value at risk (VaR), probability theory and statistics, fixed income, and Monte Carlo simulations. Methods and principles of risk; identifying and Estimating Risk Exposure; Off-Balance Sheet (OBS) Risks; Risk Management Process - Establishing the context; identifying risks; assessment of risks.

2 Risk Management Standards and Frameworks

Overview of COSO for internal controls that impact financial reporting; COSO II and ISO 31000 and 31010 for enterprise risk management; XBRL to automate financial reporting; Solvency II for insurance industry.

3 Areas of risk management

Enterprise Wide Risk Management (EWRM); Risk management activities as applied to project management; Risk management for megaprojects; Risk management of Information Technology.

4 Credit Risk Management

Techniques to manage, measure, and control credit risks inherent in loans, bonds, and derivative products; review of mathematical models and methodologies widely used in the financial industry to quantify credit risks for stand-alone securities as well as security portfolios; regulatory perspectives on best practices for managing and monitoring credit risks; impact of the Basel accords on the management, measurement, and control of credit risks.

5 Operational Risk

Major categories of operational risk; overview of quantitative and qualitative tools; interactions between operational risk failures and other types of risks.

6 Risk management and business continuity

7 Risk communication

Bow tie diagrams; risk communication in practice.

Required Text

Essentials of Risk Management in Finance by By Anthony Tarantino, Deborah Cernauskas (2010), John Wiley and Sons.

Reference Text

Financial Risk Management by Frank J Fabozzi (2010), John Wiley and Sons.

International Finance

- 1 Introduction and Motivation for International Finance
Key Issues in International Business Finance; Role of an International CFO.
- 2 Institutional Background of International Finance
International Payment Mechanism; International ("Euro") Money and Bond Markets; Balance of Payments; Exchange-Rate Regimes.
- 3 Currency Markets
Spot Markets for Foreign Currency; Exchange Rates; Major Markets for Foreign Exchange; Law of One Price for Spot Exchange Quotes; Translating FC Figures: Nominal Rates, PPP Rates, and Deviations from PPP;
- 4 Forward Exchange Rates for Currency
Introduction to Forward Contracts; Relation between Exchange and Money Markets; Law of One Price and Covered Interest Parity; Market Value of an Outstanding Forward Contract; Forward Forward and the Forward Rate Agreement; Using Forwards for International Financial Management.
- 5 The Market for Currency Futures
Handling Default Risk in Forward Markets; How Futures Contracts Differ from Forward Markets; Effect of Marking to Market on Futures Prices; Hedging with Futures Contracts; Pros and Cons of Futures Contracts Relative to Forward Contracts.
- 6 Markets for Currency Swaps
Fixed-for-Fixed Currency Swaps; Interest-Rate Swaps; Cross-Currency Swaps.
- 7 Currency Options
Concepts and Uses of Currency Options; Institutional Aspects of Options Markets; Options on Futures; Using Options for Arbitrage, Hedging; Speculation; Hedging and Valuation .
- 8 Exchange Risk, Exposure, and Risk Management
What Makes Forex Markets Tick? Behavior of Spot Exchange Rates; PPP Theory and the Behavior of the Real Exchange Rate; Exchange Rates and Economic Policy Fundamentals; Measuring Exposure to Exchange Rates; Concepts of Risk and Exposure: Measuring and Hedging of Operating Exposure; Accounting Exposure;
- 10 Managing Credit Risk in International Trade
Payment Modes without Bank Participation; Documentary Payment Modes with Bank Participation; Standard Ways of Coping with Default Risk;
- 11 Long-Term International Funding and Direct Investment
International Fixed-Income Markets; "Euro" Deposits and Loans; International Bond and Commercial-Paper Markets; Borrowing Alternatives.
- 12 Cost of International Capital and International Taxation of Foreign Investments

Required Text

International Finance, 5e by Maurice Levi, Routledge, 2009.

International Finance, by Apte, Tata-McGraw-Hill, 2011.

Reference Text

International Finance: Theory and Policy By Steve Suranovic (McGraw-Hill) 2011.

List of Journals

- **Journal of Finance (American Finance Association (AFA))**
<http://www.afajof.org/>
- **Journal of Financial Management (Wiley)**
<http://www.wiley.com/bw/journal.asp?ref=0046-3892&site=1>
- **Journal of International Financial Management & Accounting**
<http://www.wiley.com/bw/journal.asp?ref=0954-1314>
- **Journal of Multinational Financial Management (Elsevier)**
http://www.elsevier.com/wps/find/journaldescription.cws_home/600112/description#description
- **Journal of Risk and Financial Management**
<http://www.jrfm.us/>
- **Asia Pacific Journal of Finance and Banking Research**
<http://www.globip.com/asiapacificjournal.htm>
- **Asian Academy of Management Journal of Accounting and Finance**
<http://web.usm.my/journal/aamjaf/main.htm>
- **Finance India (Indian Institute of Finance)**
<http://www.financeindia.org/fi.htm>
- **Journal of Emerging Market Finance**
<http://www.sagepub.com/journals/Journal201651>
- **Indian Journal of Finance**
www.indianjournaloffinance.co.in