

**DEPARTMENT OF ECONOMICS
DELHI SCHOOL OF ECONOMICS
UNIVERSITY OF DELHI**

Minutes of Meeting

Subject : B.A. (Hons.) Economics, Fifth Semester – DSE HE54
Course : Financial Economics, LOCF
Date of Meeting : 19.07.2021
Venue : Department of Economics, Delhi School of Economics, University of
Delhi, Delhi – 110 007
Chair : Prof. Uday Bhanu Sinha

Attended by:

S.No.	Name	College
1	Ankit Joshi	Sri Venkateswara College
2	Rakesh Kumar	A.R.S.D. College
3	Pankaj Khandelwal	Janaki Devi Memorial College
4	Vaibhav Puri	Sri Guru Gobind Singh College of Commerce
5	Animesh Naskar	Hansraj College
6	Malabika Pal	Miranda House
7	Asheerwad Dwivedi	Shri Ram College of Commerce
8	Rachna Mathur	Shaheed Bhagat Singh College
9	Rajeev Parashar	Lady Shri Ram College
10	Vandana Tulsyan	Dyal Singh College
11	Nidhi Pande Aggarwal	DCAC
12	Swarup Santra	Satyawati College
13	Gagan Swamy	Lakshmibai College
14	Madhuri Singh	Kalindi College
15	Mamta Lamba	College of Vocational Studies
16	Shalini Basna	Motilal Nehru College
17	Preeti Mendiratta Arora	Maitreyi College
18	Rakesh Kumar	Dyal Singh College
19	Iti Tomar	Shyama Prasad Mukherji College.

Readings:

David G. Luenberger, *Investment Science*, 1998

Hull, John C., *Options, Futures and Other Derivatives*, Pearson Education, Inc, 9th edition, 2018.

Brealey, Richard A., Myers, Stewart, C., Allen, Franklin, Mohanty, Pitabas, *Principles of Corporate Finance*. Tata McGraw-Hill Education, 10th edition, 2013.

Copeland, Weston. Shastri & Katz , *Financial Theory and Corporate Policy*. Pearson 4th edition,

Bodie, Kane & Marcus, *Investments*, Tata McGraw-Hill Company Limited, 10th edition.

Topic wise readings with their tentative lecture requirements and weightage (%) in semester examination

Unit 1: Investment Theory and Portfolio Analysis (5 Lectures)

a) **Deterministic Cash Flow Streams:** Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates.

Brealey, Richard A., Myers, Stewart, C., Allen, Franklin:

Chapter 5: Net Present Value and Other Investment Criteria (Section 5.3, pages 115-123)**

David G Luenberger:

Chapter – 3: Fixed-Income Securities (Full Chapter)

Chapter – 4: The Term Structure of Interest Rates (4.1 to 4.3)**

Reading for Teachers: Bodie, Kane & Marcus: Chapters -14, 15 & 16.

Suggested Problem Set: David G Luenberger:

Chapter-3: Exercises-1, 5, 6, 7, 9, 11, 12 &14

Bodie, Kane & Marcus: Exercises of Chapters: 14, 15 & 16

Unit 2: CAPM (15 Lectures)

b) Single – Period Random Cash Flows : Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.

David G Luenberger: Chapter 6: Mean-Variance Portfolio Theory [excluding section - 6.2, example - 6.5, 6.7, 6.10, 6.11, 6.12 & 6.13, nonnegativity constraint (page-160-161) and solution method page-167-168)]

Reading for Teachers: Copeland, Weston, Shastri & Katz: Chapter-5.

Suggested Problem Set: David G Luenberger: Chapter - 6: Exercises-1, 3, 4 & 5.

Copeland, Weston, Shastri & Katz: Chapter-5: Exercises - 5.5, 5.9, 5.11 & 5.13.

c) CAPM : The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.

David G Luenberger: Chapter 7: The Capital Asset Pricing Model (excluding Sections 7.6 & 7.8)

Reading for Teachers: Copeland, Weston, Shastri & Kartz: Chapter - 6.

Suggested Problem Set: David G Luenberger: Chapter-7: Exercises -1, 2 & 6.

Copeland, Weston, Shastri & Katz: Chapter-6: Exercises - 6.2, 6.8, 6.10, 6.11 & 6.16.

David G Luenberger: Chapter 8: Models and Data: 8.1, 8.2, 8.3 & 8.4

Unit 3: Options and Derivatives

I. FUTURES (12 Lectures)

a) Introduction to derivatives and options; forward and futures contracts; options; other derivatives

Hull Chapter - 2: Mechanics of Futures Markets (Sections 2.1 - 2.4 & 2.11)**

b) Forward and future prices

Hull Chapter-5: Determination of Forward & Futures Prices (Sections 5.1 - 5.5, 5.9, 5.11 & 5.12)

Suggested Problem Set: Hull Chapter-5:

c) Stock index futures & the use of futures for hedging

Hull Chapter - 3: Hedging Strategies using Futures

Suggested Problem Set: Hull Chapter - 3: Sections 3.1 - 3.25 & 3.26

d) Interest rate futures & duration-based hedging strategies**

Hull Chapter - 6: Interest rate futures (6.1 to 6.4) [exclude page-158 & 159]

Suggested Problem Set: Hull Chapter - 6: Sections 6.1, 6.2, 6.4, 6.7, 6.8, 6.9, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.23, 6.24 & 6.25.

II. OPTIONS:

Part A (15 Lectures)

e) Option markets; call and put options; factors affecting option prices; put-call parity

Hull Chapter - 10: Mechanics of options markets (10.1 to 10.7);

Hull Chapter -11: Properties of stock options (Full Chapter)

Suggested Problem Set: Hull Chapter - 10: Sections 10.1 - 10.22, 10.23 & 10.25.
Chapter -11: Sections 11.1 - 11.19, 11.22 - 11.26.

f) Option trading strategies: spreads; straddles; strips and straps; strangles

Hull Chapter -12: Trading strategies involving options (Full Chapter)

Suggested Problem Set: Hull Chapter-12: Sections 12.1 - 12.5, 12.8 - 12.11, 12.13, 12.16, 12.20, 12.21 & 12.22.

Part B (15 Lectures)

g) The principle of arbitrage; discrete processes and the binomial tree model; risk neutral valuation, Black Scholes Merton (BSM) Model, Greek letters

Hull Chapter - 13: Binomial trees. Sections 13.1-13.4, 13.6 - 13.9 & Appendix (Derivation of BSM)

Hull Chapter - 14: Section 14.6 ITO[^]'S Lemma**

Hull Chapter - 15: The Black–Scholes–Merton Model: Sections 15.3, 15.4, 15.5, 15.6, 15.8, 15.11

Hull Chapter - 19: The Greek Letters**

****These topics will not be examined in the final examination.**

Questions Pattern in End Semester examination: As per University guidelines. Scientific calculator can be allowed during the examination. **Internal Assessment:** One Test and One Term Paper/Project. **Weightage: Section 1 & 2 (50%) and Section 3 (50%).**

Note: Suggested Problem Set for Unit 3 Options Part B will be added later.