

FIN 3102: INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT

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Session: Semester 2, 2015/2016

Course objectives

The objective of this course is to develop key concepts in investment theory from the perspective of a portfolio manager, and to apply such concepts using real financial data. Topics to be covered include portfolio optimization and asset pricing theories, as well as their applications to problems in modern financial practice. This course also explores the application of various financial instruments in investment management and introduces the basic techniques of portfolio performance evaluation.

Prerequisites

- Finance (FIN2004)
- Statistics (BZ1008/ST1131A)
- Basic understanding of Excel Spreadsheet functions
- Financial calculator

Course textbook

The reference noted below has been placed in the RBR section in HSSML:

Bodie, Zvi, Alex Kane, Alan Marcus and Ravi Jain, 2014, *Investments: Asia Global Edition*, McGraw Hill, ISBN 978-007-126228-6.

All other course materials, journal articles, data files, and information pertaining to FIN3102 will be posted on the IVLE. You are expected to check any updates and files on the IVLE system on the regular basis. You are encouraged to use IVLE discussion forum for your questions and comments. I encourage you to read regularly the financial news from Wall Street Journal or the Financial Times.

Assessment Methods

Class Participation	10%
Cases	25%
Test 1 (20 February 2016, 10am-12pm)	30%
Test 2 (16 April 2016, 10am-12pm)	30%
<u>Ethics</u>	<u>5%</u>
Total	100%

(i) Class participation (10%)

Credits will be given for active participation in class. (*Warning: Zero mark will be given for non-participation throughout the course.*) Students will also be prompted with questions on the additional assigned readings from the financial times, the economists, and the Bloomberg.

(ii) Group Projects on Cases (25%)

There are TWO CASES in this course. Each class will form 8 groups. Group 1, 2, 3, and 4 are to complete a 10-page case analysis report including appendix in **MICROSOFT WORD** document (with font size not smaller than 11) and be prepared to present the case analysis in class for CASE 1. Group 5, 6, 7 and 8 are to do the same for CASE 2. Moreover, Group 5 to 8 will write a 2-page critique for case report done by Group 1 to Group 4 for CASE 1. Group 1 to 4 will write a 2-page critique for case report done by Group 5 to 8 for CASE 2. The case report shall be submitted through IVLE. When uploading the reports, please label the file in the following format: "A1_Group1_Case 1" with the relevant section number starting with letter "A" and Group Number and Case No.

CASE 1:

It can be collected on **22 January 2016** after 10am. The electronic case reports from Group 1, 2, 3 and 4 are due on **5 February 2016 (Friday) by 10am to IVLE**. The lecturer will email the reports to the relevant critique groups on that Friday. The critiques on the reports by Group 5, 6, 7 and 8 are due on **8 February (Monday) by 10am to IVLE**.

CASE 2:

It can be collected on **11 March 2016 (Friday)** after 10am. The electronic case reports from Group 5, 6, 7 and 8 are due on **25 March 2015 (Friday) by 10am to IVLE**. The lecturer will email the reports to the relevant critique groups on that Friday. The critiques on the reports by Group 1, 2, 3 and 4 are due on **28 March (Monday) by 10am to IVLE**.

(iii) Test 1 (30%)

A 2-hour closed-book test will be held on **20 February 2016** (Saturday of Week 6) from **10am to 12pm**. Venue to be decided. You are allowed to bring a financial calculator for the test.

(iv) Test 2 (30%)

A 2-hour closed-book test will be held on **16 April 2016** (Saturday of Week 13) from **10am to 12pm**. Venue to be decided. You are allowed to bring a financial calculator for the test.

(v) Investment Ethics (5%)

There will be online materials for study of Ethics and a quiz on the materials in IVLE. This is in compliance to NUS being a CFA affiliated institution. More details will be posted on IVLE.

Consultation Hours

Thursday 10:00am – 12:00pm

Main Topics:

Topic 1: Introduction (BKMJ Chapter 1 to 5)

1. Investment environment
2. Different asset classes
3. How securities are traded
4. Investment companies
5. Risk & Return

Topic 2: Portfolio Theory (BKMJ Chapter 6 to 7)

1. Determine risk tolerance
2. Measure portfolio risk and return
3. Identify investment opportunity set
4. Optimal asset allocation

Topic 3: Equilibriums Asset Pricing Models (BKMJ Chapter 8, 9 & 10)

1. CAPM
2. APT
3. Applications

Topic 4: Portfolio Management (BKMJ Chapter 24)

1. Passive investment
2. Active investment
3. Performance measure

Topic 5: Efficient Market Hypothesis and its Applications (BKMJ Chapter 11 & 12)

1. Forms of Market Efficiency
2. Tests of Market Efficiency
3. Implications of Efficient Capital Markets

Topic 6: Security Analysis (BKMJ Chapter 17 & 18)

1. Macroeconomic Analysis
2. Industry Analysis
3. Fundamental Analysis
4. Technical Analysis

Topic 7: Bond Investment (BKMJ Chapter 14, 15 & 16)

1. Bond features
2. Bond pricing and yields
3. Interest rate determinants
4. Bond pricing with yields
5. Term structure theories
6. Determine risk tolerance
7. Measure portfolio risk and return
8. Identify investment opportunity set
9. Optimal asset allocation

Topic 8: Investment in Singapore

Schedule:

Week 1: Topic 1

Week 2: Topic 2

Week 3: Topic 3

Week 4: Topic 4

Week 5: Case 1 Discussion

Week 6: Test 1 on **20 February 2016 (Saturday)** from 10am to 12noon

Recess Break

Week 7: Topic 5

Week 8: Topic 6

Week 9: Topic 7 part I

Week 10: Topic 7 part II

Week 11: Case 2 Discussion

Week 12: Topic 8

Week 13: Test 2 on **16 April 2016 (Saturday)** from 10am to 12noon

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is “the practice of taking someone else's work or ideas and passing them off as one's own” (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at:

<http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudentConduct>

Online Module on Plagiarism:

<http://emodule.nus.edu.sg/ac/>

COURSE ACTIVITY SCHEDULE			
Subject	Description	Take-Home Exercises	Submission Dates
WEEK 1 (11 January 2016)			
Introduction BKMJ 1-4	1. Investment environment 2. Different asset classes 3. How securities are traded 4. Investment companies	BKMJ 5: Concept Check Questions (CCQ), 12; CFA 3-6.	Form 8 groups and submit names to Professor
Risk & Return BKMJ 5.4, 5.5, 5.8	5. Risk & Return	Read BKMJ 6 & 7	
WEEK 2 (18 January 2016)			
Portfolio Theory BKMJ 6 & 7.1-7.4	1. Determine risk tolerance 2. Measure portfolio risk and return 3. Identify investment opportunity set 4. Optimal asset allocation	BKMJ 6: 5, 13, 14, 15, 17, 18, 19; CFA 4, 5, 7. BKMJ 7: 4 -10 Read BKMJ 24	Case 1 is to be collected on 22 January 2016 after 10am.
WEEK 3 (25 January 2016)			
Portfolio Management BKMJ 24.1-24.3, 24.5-24.7	1. Passive investment 2. Active investment 3. Performance measure	BKMJ 24: 4, 8, 15; CFA 1, 2, & 4. Read BKMJ 8, 9, & 10	
WEEK 4 (1 February 2016)			
Equilibrium Model BKMJ 8.1-8.2, 9.1 & 10.1-10.5	1. CAPM 2. APT	BKMJ 8: 7; CFA 1,2 BKMJ 9: 17,18,19; CFA 2,5,6 BKMJ 10: 5; CFA 1,2	Case 1 report is due on 5 February 2016 at 10am to IVLE. Each report will be emailed to critique groups by 12noon.
WEEK 5 (8 February 2016)			
Case 1 Discussion	Case 1 Presentation and Discussion	Read BKMJ 11 & 12	Critique of Case 1 report is due on 8 February 2016 at 10am to IVLE.
WEEK 6: Test 1 on 20 February 2016 from 10am to 12noon			
RECESS WEEK (20 February 2016 – 28 February 2015)			

WEEK 7 (28 February 2016)			
Efficient Market Hypothesis BKMJ 11 & 12	1. Forms of market efficiency 2. Tests of market efficiency 3. Applications of market efficiency	BKMJ 11: 8, 10, 14; CFA 2, 4. BKMJ 12: 2, 3; CFA 3. Read BKMJ 17 & 18	
WEEK 8 (7 March 2016)			
Security Analysis BKMJ 17, 18	1. Macroeconomic Analysis 2. Industry Analysis 3. Fundamental Analysis	BKMJ 17: 11, CFA 6 BKMJ 18: 10, 14, CFA 7 Read BKMJ 14 & 15	Case 2 is to be collected on 11 March 2016 after 10am.
WEEK 9 (14 March 2016)			
Bond Pricing BKMJ 14 & 15	1. Bond features 2. Bond pricing and yields 3. Interest rate determinants 4. Bond pricing with yields 5. Term structure theories	BKMJ 14: 5, 9, 10, 13 BKMJ 15: 2, 4, 7, 12 Read BKMJ 16	
WEEK 10 (21 March 2016)			
Bond Investment BKMJ 16	1. Bond price volatility 2. Duration 3. Convexity 4. Investment applications	BKMJ 16: 3, 7, CFA 3	Case 2 report is due on 25 March 2016 at 10am to IVLE. The report will be emailed to critique group by 12noon.
WEEK 11 (28 March 2016)			
Case 2 Discussion	Case 2 Presentation and Discussion	Final Review	The critique on Case 2 report is due on 28 March 2016 by 10am to IVLE.
WEEK 12 (4 April 2016)			
Investment in Singapore	1. Investment in Singapore 2. Final Review		
WEEK 13: Test 2 on 16 April 2016 from 10am to 12noon			