

Hong Kong University of Science and Technology
School of Business and Management
Fall 2008

FINA 521: Investment Analysis

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Class time and location: Saturdays
L1: 9:00 a.m. – 12:20 p.m. in room 2405
L2: 2:30 p.m. – 5:50 p.m. in room 2405

Course website: <http://lmes2.ust.hk>

Course description:

Investors seek higher returns on their investments. For this, investors should be aware of the concepts of risk-return tradeoff, portfolio diversification and efficient financial markets (asset prices reflect all information), concepts that will affect the pricing of financial assets and investor's returns. Ideally, investors should face a market where assets would be efficiently priced (using all information at hand) in an efficient portfolio context (using the level of risk faced by investors when they all settle for the same optimal portfolio). This was the initial approach to pricing assets – use of the Capital Asset Pricing Model (CAPM). The empirical evidence in this regard has overtime lead to modifications in this ideal approach – use of Arbitrage Pricing Theory (APT) and the Fama-French three factor models.

The course will deal with the following topics – risk-return tradeoff, portfolio risk reduction process and optimization, asset pricing models (CAPM, APT, Fama-

French three factor model), efficiency of capital markets in pricing assets, and the valuation of financial assets such as stocks, bonds and options.

Text Books:

Zvi Bodie, Alex Kane and Alan J Marcus, Investments, 8th edition, McGraw-Hill International edition, 2009, ISBN 978-007-12625-2 (required) – BKM
Website: <http://www.mhhe.com/bkm>

Craig W Holden, Excel Modeling and Estimation in Investments, 3rd edition, Pearson Prentice Hall, 2009, ISBN 10: 0-13-207990-9 (at least one book per team)

Assessment:

Your grade for the course will be determined in the following manner:

- Two quizzes – 20%
Closed-book multiple-choice held in the beginning of class; make-up quiz is not provided; if you miss a quiz, the final exam weight will go up by 10%.
- Excel based homework (Holden book) – 25%
Done by teams of 5 – please form your own groups.
- Final exam – 55%
Closed books/notes; one page A4 size formula/notes sheet allowed; computer not allowed, please bring calculator. No make-up exams or early exams.
- Executive Brief (strictly 2 pages) on a Hong Kong related current investment topic – **optional**
Opportunity to substitute 10% of your grade – must be done by teams of 2.

The excel-based homework assignments are to be submitted (one answer per group) by the due date, indicated in the table below. Each team will purchase the Holden book which will show you how to solve all the assigned problems. Every chapter of the book presents step-by-step examples of excel-based solutions to problems. For practice, the books comes with a CD that takes up the illustrated chapter problems with the excel cells left blank, to be completed by students. Please complete these problems before you attempt the homework problems. Once you have the excel formulas in place for a problem, completing the homework assignments requires only changes in problem data input. The Holden book assumes that the student has only an elementary knowledge of excel.

Tentative Course Outline:

Chapters 2(asset classes and financial instruments) and 3(how securities are traded) are background chapters – students are expected to be familiar with the contents of these chapters.

Date	Topic	Reading	Assessment items
September 6	<ul style="list-style-type: none"> • Introduction • Risk and return • Portfolio diversification 	BKM Chapters 1, 5, 24(pp.823-824), 6	
September 13	<ul style="list-style-type: none"> • Capital allocation/Capital Market Line • Optimal risky portfolio • Index models • Capital asset pricing model 	BKM Chapters 7 - 9	
September 20	<ul style="list-style-type: none"> • Arbitrage pricing theory and multifactor models • Tests of Index model, CAPM, APT • Risk-adjusted performance evaluation • The efficient market hypothesis 	BKM Chapters 10, 11, 12, 13, 24(pp.825-834),	Holden end of chapter problems – 7-1, 7-2, 11-1, 11-2 due
September 27	<ul style="list-style-type: none"> • Equity valuation • Bond prices and yields 	BKM Chapters 18, 14	Quiz 1
October 4	<ul style="list-style-type: none"> • Bond prices and yields • Term structure of interest rates 	BKM Chapters 14, 15	Holden end of chapter problems – 7-3, 8-1, 9-1, 9-2, 13-1 due
October 11	<ul style="list-style-type: none"> • Interest rate risk • Options 	BKM Chapters 16, 20, 21	Quiz 2
October 18	<ul style="list-style-type: none"> • Options 		Holden end of chapter problems - 1.1, 1.2, 1-5, 2-1, 2-2, 3-1, 3-2, 4-1, 4-2, 4-3 due
October 25			Final Exam

Recent Articles (2005 -2008) for Investment Practitioners – Optional Reading Material (Articles can be accessed from the E-journals section, Library intranet site)

Sources:

Financial Analysts Journal (FAJ)
Journal of Applied Corporate Finance (JACF)
Journal of Portfolio Management (JPM)

Most of the articles listed below are conceptual; the articles with mathematics/statistics do not involve advanced or complex calculations/formulas. These articles are either practice-oriented or examine theory for its practical application.

I. General issues

1. Robert D. Arnott, What is Wealth?, FAJ, September/October 2006.
2. John C Bogle, The Relentless Rule of Humble Arithmetic, FAJ, November/December 2005.
3. Abby Joseph Cohen, Aristotle on Investment Decision Making, FAJ, July/August 2005.
4. J. Parker Hall III, Good News!, FAJ, May/June 2005.
5. Henry Kaufman, Biases and Lessons, FAJ, November/December 2005.
6. John J. Nagorniak, From Theory to Practice, FAJ, July/August 2005.
7. Alfred Rappaport, The Economics of Short-Term Performance Obsession, FAJ, May/June 2005.
8. Mier Statman, Normal Investors, Then and Now, FAJ, March/April 2005.

II. Portfolios

1. Jonathan P. Berk, Five Myths of Active Portfolio Management, JPM, Spring 2005.
2. William H. Gross, Consistent Alpha Generation through Structure, FAJ, September/October 2005.
3. Bruce I Jacobs and Kenneth N Levy, 20 Myths About Enhanced Active 120-20 Strategies, FAJ, July/August 2007.
4. Martin L. Leibowitz, Alpha Hunters and Beta Grazers, FAJ, September/October 2005.

III. Stock Returns

1. Juliet Estridge and Barbara Lougee, Measuring Free Cash Flows for Equity Valuation: Pitfalls and Possible Solutions, JACF, Spring 2007.
2. John R. Graham, Campbell R. Harvey and Shiva Rajagopal, Value Destruction and Financial Reporting Decision, FAJ, November/December 2006.
3. Jeremy J. Siegel, Perspectives on the Equity Risk Premium, FAJ, November/December 2005.
4. Jeremy J. Siegel and Jeremy D. Schwartz, Long-Term Returns on the Original S& P 500 Companies, FAJ, January/February 2006.

IV. Market Efficiency

1. John C. Bogle, Black Monday and Black Swans, FAJ, March/April 2008.
2. Market Efficiency and Behavioral Finance – A Discussion with Burton Malkiel and Sendhil Mullainathan, JACF, Summer 2005.

V. Performance

1. Alfred Slager and Kees Koedijk, Investment Beliefs, JPM, Spring 2007.
2. M. Barton Waring and Lawrence B. Siegel, The Myth of the Absolute Return Investor, FAJ, March/April 2006.

VI. Mutual Funds

1. John C. Bogle, The Mutual Fund Industry 60 Years Later: For Better or Worse, FAJ, January/February 2005.

VII. Hedge Funds

1. Mark Kritzman, Who Charges More: Hedge Funds or Mutual Funds?, JACF, Winter 2008.
2. Burton G. Malkiel and Atanu Saha, Hedge Funds: Risk and Return, FAJ, November/December 2005.
3. Narayan Y. Naik and Mark Tippley, Demystifying Hedge Funds, Business Strategy Review, Summer 2007.

VIII. Private Equity

1. John J. Moon, Public versus Private Equity, JACF, Summer 2006.
2. Private Equity: Past, Present and Future, An Interview with Steve Kaplan, University of Chicago, JACF, Summer 2007.
3. Robert M. Conroy and Robert S. Harris, How Good Are Private Equity Returns?, JACF, Summer 2007.
4. The Economics of Private Equity Investments: Symposium Summary, Economic Letter (Federal Reserve Bank of San Francisco), February 28, 2008.

IX. Corporate Social Responsibility/Ethics

1. Jeroen Derwall, Nedja Guenster, Rob Bauer and Kees Koedijk, The Eco-Efficiency Premium Puzzle, FAJ, March/April 2005.
2. Stuart L. Gillan and Laura T. Starks, The Evolution of Shareholder Activism in the US, JACF, Winter 2007.
3. Glyn A. Holton, Investor Suffrage Movement, FAJ, November/December 2006.
4. Jonathan M. Karpoff, D. Scott Lee and Gerald S. Martin, The Consequences to Managers for Financial Misrepresentation, Journal of Financial Economics, May 2008.
5. Dalia Marciukaityte, Samuel H. Szewczyk, Hatiu Uzum and Raj Varma, Governance and Performance Changes After Accusation of Corporate Fraud, FAJ, May/June 2006.

X. The Future

1. Keith Ambechtsheer, Beyond Portfolio Theory: The Next Frontier, FAJ, January/February 2005.
2. Gary P. Brinson, The Future of Investment Management, FAJ, July/August 2005.

Selected paper references (Asset Pricing)

1. Michael C. Jensen, Fisher Black and Myron S. Scholes, The Capital Asset Pricing Model: Some Empirical Tests, in Michael C. Jensen, *Studies in the Theory of Capital Markets*, Praeger Publishers, 1972. Available at SSRN: <http://ssrn.com/abstract=908569>
2. Eugene F. Fama and James D. MacBeth, Risk, Return and Equilibrium: Empirical Tests, *Journal of Political Economy*, 81(3), 1973.

3. R. Roll, A Critique of the Asset Pricing Theory's Tests, *Journal of Financial Economics*, 4(2), 1977.
4. Stanford J. Grossman and Joseph E. Stiglitz, On the Impossibility of Informationally Efficient Markets, *American Economic Review*, 70(3), 1980.
5. Nai-Fu Chen, Richard Roll and Stephen A. Ross, Economic Forces and the Stock Market, *Journal of Business*, 59(3), 1986.
6. Eugene F. Fama and Kenneth R. French, The Cross-Section of Expected Stock Returns, *Journal of Finance*, 47(2), 1992.
7. Eugene F. Fama and Kenneth R. French, Common Risk Factors in the Returns on Stocks and Bonds, *Journal of Financial Economics*, 33(1), 1993.
8. Eugene F. Fama and Kenneth R. French, Multifactor Explanations of Asset Pricing Anomalies, *Journal of Finance*, 51(1), 1996.
9. John Y. Campbell, Asset Pricing at the Millennium, *Journal of Finance*, 55(4), 2000.