



# School of Economics and Finance

# **FINA412:** Applications and Extensions of the CAPM

Trimester One 2011

# **COURSE OUTLINE**

# Names and Contact Details

The Course Coordinator and lecturer for the course is Martin Lally, RH 301, ext 5998, <u>martin.lally@vuw.ac.nz</u>. Students are free to contact him at any time.

# **Trimester Dates**

Teaching Period: Monday 28 February – Friday 3rd June Study Period: Monday 6 June – Thursday 9 June Examination Period: Friday 10 June – Saturday 2 July (inclusive)

# Withdrawal from Course

- 1. Your fees will be refunded if you withdraw from this course on or before 11 March 2011.
- 2. The standard last date for withdrawal from this course is 14 May. After this date, students forced to withdraw by circumstances beyond their control must apply for permission on an *'Application for Associate Dean's Permission to Withdraw Late'* including supporting documentation

The application form is available from either of the Faculty's Student Customer Service Desks.

# **Class Times and Room Numbers**

Classes will run on Mondays from 12.40pm till 3.30pm in RWW128

# **Course Learning Objectives**

The course learning objectives are as follows:

- To demonstrate an understanding of selected extensions to the Capital Asset Pricing Model, and the estimation of parameters in those models. The exam and weekly assignments relate to this.
- To demonstrate an ability to critically assess a piece of financial analysis involving some of the preceding issues. The essay relates to this.

#### **Course Delivery**

The delivery of the course will involve weekly classes, involving review of the previous week's assignment and the presentation of new material.

#### **Expected Workload**

A minimum of 14 hours per week, comprising 3 hrs for the class, 3 hrs in preparing the weekly assignment, 4 hrs in undertaking the background reading, and 4 hrs in researching and writing the essay. In addition, students will require time in preparation for the exam.

#### **Materials and Equipment**

Students are permitted to use electronic calculators in the exam, providing that they are not programmable and do not have a full set of alphabetic keys.

#### **Assessment Requirements**

The final mark for the course will be based upon the following approximate weights

Weekly assignments	25%
Essay	25%
Final Exam	50%

The essay comprises a critical review of the ESC's estimates for the market risk premium and the equity beta in the *Electricity Distribution Price Review 2006-2010 Final Decision Volume 1*, *Chapter 9*, pp. 345-365 (www.esc.vic.gov.au). It must be typed, 1.5 spaced A4, font 12, with a maximum of 18 pages at 25 lines per page excluding the bibliography (approx. 6000 words). Pages must be **numbered**. Students should consult a book on essay style and may also wish to examine the following example of a critical review: *Investing in New Zealand: A Review* (www.nzsuperfund.co.nz). An Executive Summary is not required. The Introduction and Conclusion should be brief. The due date is **June 3** (4.30pm).

Note: Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning objectives as required for accreditation and audit purposes. The findings may be used to consider changes aimed at improving the quality of FCA programmes. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the course.

#### Examinations

Students who enrol in courses with examinations are obliged to attend an examination at the University at any time during the formal examination period. The final examination for this course will be scheduled at some time during the period from Friday 10 June – Saturday 2 July 2011.

#### Penalties

Late essays will suffer a penalty of 5% per business day (i.e. marked out of 95, 90, etc.) unless an extension has been granted in advance for significant medical or personal problems. Essay material in excess of the limit prescribed above will **not** be evaluated.

#### **Mandatory Course Requirements**

There are no mandatory requirements for passing the course.

#### **Class Representative**

An Honours programme representative will be elected in the first week, and that person's name and contact details made available to VUWSA, the Course Coordinators and the classes. The programme representative provides a communication channel to liaise with the Course Coordinators on behalf of students.

#### **Communication of Additional Information**

Additional information will be conveyed to students during classes.

### Use of Turnitin

Student work provided for assessment in this course may be checked for academic integrity by the electronic search engine <u>http://www.turnitin.com</u> Turnitin is an on-line plagiarism prevention tool which compares submitted work with a very large database of existing material. At the discretion of the Head of School, handwritten work may be copy-typed by the School and subject to checking by Turnitin. Turnitin will retain a copy of submitted materials on behalf of the University for detection of future plagiarism, but access to the full text of submissions will not be made available to any other party.

#### **Academic Integrity and Plagiarism**

http://www.victoria.ac.nz/home/study/plagiarism.aspx

# **General University Policies and Statutes**

Find key dates, explanations of grades and other useful information at <u>www.victoria.ac.nz/home/study</u>. Find out about academic progress and restricted enrolment at <u>www.victoria.ac.nz/home/study/academic-progress</u>. The University's statutes and policies are available at <u>www.victoria.ac.nz/home/about/policy</u>, except qualification statutes, which are available via the Calendar webpage at <u>www.victoria.ac.nz/home/study/calendar</u> (See Section C). Further information about the University's academic processes can be found on the website of the Assistant Vice-Chancellor (Academic) at

www.victoria.ac.nz/home/about\_victoria/avcacademic/default.aspx

# AVC (Academic) Website: information including: Conduct, Academic Grievances, Students with Impairments, Student Support

http://www.victoria.ac.nz/home/about\_victoria/avcacademic/Publications.aspx

# **Faculty of Commerce and Administration Offices**

http://www.victoria.ac.nz/fca/studenthelp/

#### Manaaki Pihipihinga Programme

http://www.victoria.ac.nz/st\_services/mentoring/

#### **Course Content**

The following topics will be examined:

- 1. Extensions of the CAPM to deal with personal taxes: Feb 28, March 7, 14
- 2. Extensions of the CAPM to deal with international investment opportunities: March 21, 28
- 3. Price setting under the CAPM: April 4
- 4. Estimation of beta: April 11, May 2, 9
- 5. Estimation of the market risk premium: May 16, 23, 30

#### Readings

Prescribed reading for the seminar topics is as follows:

1. Extensions of the CAPM to deal with personal taxes

Lally, M., 1992. "The CAPM Under Dividend Imputation", *Pacific Accounting Review*, vol.4, 31-44.

\_\_\_\_\_, 2000. "Valuation of Projects and Companies Under Differential Personal Taxation", *New Zealand Investment Analyst*, vol. 21, 36-39.

<u>2000.</u> "Valuation of Companies and Projects Under Differential Personal Taxation", *Pacific-Basin Finance Journal*, vol. 8, 115-133.

Officer, R., 1994. "The Cost of Capital of a Company Under an Imputation Tax System", *Accounting and Finance*, vol. 34, 1-18.

2. Extensions of the CAPM to deal with international investment opportunities

Solnik, B., 1974. "An Equilibrium Model of the International Capital Market", *Journal of Economic Theory*, 500-524.

Stulz, R., 1995. "International Portfolio Choice and Asset Pricing: An Integrative Survey", in R. Jarrow et al (ed), *Handbooks in Operations Research and Management Science*, vol. 9, Elsevier Science BV.

3. Price Setting Under the CAPM

Hirshleifer, J., 1970. Investment, Interest and Capital, Prentice-Hall Inc., Ch 10.

#### 4. Estimation of Beta

Miles, J. and Ezzell, J., "Reformulating Tax Shield Valuation: A Note". *Journal of Finance*, (1985), pp. 1485-92.

Conine, T., "Corporate Debt and Corporate Taxes: An Extension", *Journal of Finance* (1980), pp 1033-1036.

Cornell, B. and Green, K., "The Investment Performance of Low-Grade Bond Funds", *Journal of Finance* (1991), pp. 29-48.

Ehrhardt, E. and Shrieves, R., "The Impact of Warrants and Convertible Securities on the Systematic Risk of Common Equity", *The Financial Review* 30 (1995), pp 843-856.

Lally, M., "An Examination of Blume and Vasicek Betas", *The Financial Review* 33, (1998), pp 183-198.

<u>"Correcting Betas for Changes in Firm and Market Leverage</u>", *Pacific Accounting Review* 10, (1998), pp. 97-115.

"Betas and Market Leverage', *Accounting Research Journal* 15(1), (2002), pp. 91-97.

5. Estimation of the Market Risk Premium

Siegel, J., "The Equity Premium: Stock and Bond Returns Since 1802", *Financial Analysts Journal* (Jan-Feb 1992), pp 28-38.

Dimson, E., Marsh, P. and Staunton, M. "Global Evidence on the Market Risk Premium", *Journal of Applied Corporate Finance*, vol. 15 (4), Fall 2003, pp. 27-38.

Lally, M., "Time-Varying Market Leverage, the Market Risk Premium and the Cost of Capital", *Journal of Business Finance and Accounting* 29 (2002), pp. 1301-1318.

Merton, R., "On Estimating The Expected Return on the Market", *Journal of Financial Economics* 8 (1980), pp 323-361.

Cornell, B., The Equity Risk Premium, John Wiley & Sons Inc (1999), Ch 3.

Bernstein, P. and Arnott, R. "Earnings Growth: The Two Percent Dilution", *Financial Analysts Journal*, Sept-Oct 2003, pp. 47-55.

Cooper, I., "Arithmetic Versus Geometric Mean Estimators: Setting Discount Rates for Capital Budgeting", *European Financial Management* 2, (1996), pp. 157-67.