



# THE UNIVERSITY OF NEW SOUTH WALES

## SCHOOL OF BANKING AND FINANCE

### FINS5514 CAPITAL BUDGETING AND FINANCIAL DECISIONS Course Outline, Session 1, 2003

#### **Introduction**

Capital budgeting and financial decisions is primarily concerned with the major financial decisions faced by the firm. These decisions can be broadly classified as the investment decision, the financing decision, the dividend decision and the restructuring decision. The course will examine the main theories and empirical evidence surrounding these decisions. This body of knowledge will then be used to help solve typical 'real' problems faced by senior finance managers.

#### **Key Learning Outcomes**

On completion of the course, you will:

- Be able to explain why the separation of the ownership and the control of most major corporations can cause agency problems and describe how a judicious use of different financing vehicles (e.g., equity, debt, convertibles, dividends, etc.) can reduce such agency costs;
- Be able to apply several capital budgeting techniques using MS Excel, appreciating the strengths and weaknesses of the different techniques;
- Have an understanding of how to incorporate risk and uncertainty into capital budgeting decisions and how capital budgeting is applied in practice;
- Understand the link between capital budgeting decisions and the impact on firm performance. You will also appreciate the key issues surrounding the performance measurement debate;
- Have an understanding of the restructuring choices faced by managers and how these choices can help resolve agency problems within the firm;
- Be able to describe how the arbitrage-based arguments of Modigliani and Miller establish the irrelevance propositions and to explain why their framework can contribute to our understanding of financing decisions;

- Be able to explain why managers face an adverse selection problem to convince investors to give the financing that managers need to implement investment decisions and to describe how costly signalling mechanisms can assist the managers to make informed corporate finance decisions;
- Be able to explain the key issues surrounding the formulation of a company's dividend policy;
- Be able to critically evaluate the core empirical evidence related to each of the key financial decisions.

### **Prerequisites**

The prerequisites for this course are: Business Economics (ECON5103), Statistics for Business (ECON5203) and Security Valuation and Portfolio Selection (FINS5513, allowed as a co-requisite). It is the student's responsibility to ensure that the prerequisites have been met prior to the commencement of the course.

### **Web Page**

This subject has a web site (<http://banking.web.unsw.edu.au>). Lecture overheads, tutorial questions and solutions will be downloadable from this site. Class announcements will also be posted to this site. To access the site, you need a valid Unipass number if you are using campus wide PCs. If you wish to access the site from your home or work PC you will need to connect to the University Dial-Up System (UDUS). Details about Unipass and UDUS may be obtained from [www.disconnect.unsw.edu.au/old-index.html](http://www.disconnect.unsw.edu.au/old-index.html).

### **Lectures**

Tuesday	13.00 – 16.00	ME301
Tuesday	18.00 – 21.00	CLB 8
Thursday	11.00 - 14.00	MAT C
Thursday	18.00 - 21.00	NSG Theatre

### **Lecturers**

Dr Ronan Powell (weeks 1-4 and 14)  
Office: Quad 3022  
Email: [r.powell@unsw.edu.au](mailto:r.powell@unsw.edu.au)  
Tel: 9385-4925

Dr Sian Owen (weeks 9-11)  
Quad 3057  
Email: [sian.owen@unsw.edu.au](mailto:sian.owen@unsw.edu.au)  
9385-4412

Dr Alfred Yawson (weeks 5-7)  
Office: Quad 3067  
Email: [a.yawson@unsw.edu.au](mailto:a.yawson@unsw.edu.au)  
Tel: 9385-4900

Mr Ilya Serov (weeks 12-13)  
Email: [i.serov@unsw.edu.au](mailto:i.serov@unsw.edu.au)  
Quad 3031A  
9385-5884

## **Course Format**

A combination of formal lectures and tutorials (problem solving classes) will be used.

- Tutorials/problem-solving classes: Students must prepare answers in advance to the exercises set for each week. A tutorial / problem-solving class will be held during the last hour of each lecture. Solutions will also be available on the subject web page.

## **Assessment**

The course will be assessed through a combination of class quizzes and formal written exams.

- Class quizzes: The quizzes will be held during the normal lecture times in week 4 and week 14. The format will be multiple-choice in which students have to answer 30-questions in 1 hour. The first (second) test will cover lecture material (Brealey and Myers only) from weeks 1 to 3 (9-11). The tests carry a weight of 15% each (total 30%)
- A mid-session exam will be held in week 8. The 2-hour exam will cover material from weeks 1 to 7. The exam has a weighting of 30%. A formal end of semester written exam will be held during the University's exam period. The 3-hour exam will cover all lecture material from weeks 9 to 14. The final exam has a weight of 40%. Further details of both exams will be posted on the web later in the semester.
- The weighted average mark across all assessments will be used to determine pass or failure.

<b>Summary Table of Class Tests and Final Exam</b>				
<i>Exam / Test</i>	<i>Week Held</i>	<i>Material Covered</i>	<i>Venue and Time</i>	<i>Duration</i>
Class Test 1	4	Weeks 1 to 3	During Lecture	1-hour
Mid-session Exam	8	Weeks 1 to 7	TBA	2-hours
Class Test 2	14	Weeks 9 to 11	During Lecture	1-hour
Final Exam	16/17	Weeks 9 to 14	TBA	3-hours

## **Textbooks / Reference Material**

Brealey, R.A. and S.C. Myers, 'Principles of Corporate Finance', 7th Edition, McGraw-Hill, 2000 (S658.15/349). Book web site:

[http://highered.mcgraw-hill.com/sites/0072467665/information\\_center\\_view0/](http://highered.mcgraw-hill.com/sites/0072467665/information_center_view0/)

Copeland, T.E. and J.F. Weston, 'Financial Theory and Corporate Policy', 3rd Edition, Addison-Wesley, 1988 (S658.15/345).

Brealey and Myers provide a reasonable grounding of all the topics covered in this course. Copeland and Weston, although a little dated, provides a much more rigorous analysis of the subject matter. However, since both textbooks are written primarily for the USA market, they fail to cover some of the minor differences with respect to the Australian financial system, notably tax and legal systems. Where differences occur, they will be discussed in the lectures. **Students are strongly advised to purchase Brealey and Myers, available from the campus bookshop.**

*Students may also want to consult the following texts, which are available from the library:*

Bierman, H., and S. Smidt, 'The Capital Budgeting Decision: Economic Analysis of Investment Projects, Eighth Edition, *Macmillan* (S332.6/15)

Chew, D. H. (Ed.) (1998), *The New Corporate Finance: Where Theory Meets Practice*, Second Edition, *McGraw-Hill* (S658.15/472).

Damodaran, A, 'Corporate Finance, Theory and Practice', *Wiley*, 1997.

Copeland, T., Koller, T. and J. Murrin, 'Valuation: Measuring and Managing the Value of Companies, Third Edition, *Wiley*, 2000 (S658.15/460).

Levy, H and M. Sarnat, 'Capital Investment and Financial Decisions', Fifth Edition, *Prentice-Hall* (S658.15/329).

Ross, S. A., R. W. Westerfield and J. F. Jaffe (1998), *Corporate Finance*, Fifth Edition, *Irwin* (S658.15/440).

Damodaran, Levy and Sarnat and Ross, Westerfield and Jaffe all cover the same material as Brealey and Myers, albeit in a different style. Bierman and Smidt provide quite an extensive coverage of capital budgeting with a good discussion of capital budgeting applications and the difficult aspect of dealing with the uncertainty problem. Copeland, Koller and Murrin is primarily aimed at financial managers and provides an excellent coverage of the more practical aspects of investment decision making and how such decisions impact on firm value. The academic papers listed below are available from the Open Reserve in the library. Several of the papers can be downloaded directly by clicking on the hyperlink [Full text]. As a postgraduate course, you are expected to read broadly on each subject area. The list of references provided under each subject heading should be regarded as the minimum reading necessary to achieve a pass in this course.

### **Web site resources:**

Brealey and Myers web site:

[http://highered.mcgraw-hill.com/sites/0072467665/information\\_center\\_view0/](http://highered.mcgraw-hill.com/sites/0072467665/information_center_view0/)

Corporate Finance online: Covering 27 different topics, you can complete challenging exercises and discussion questions that draw on recent articles, company reports, government data and other Web-based resources.

<http://www.mhhe.com/business/finance/corpfonline/>

Finance around the world: Provides an interactive map that allows you to access finance and business news and analysis from your favourite regions of interest around the world.  
<http://auth.mhhe.com/business/finance/financemap/>

The Economist:  
<http://www.economist.com/globalExecutive/education/>

## **Lecture Program**

*Week 1-2*

**Introduction to the course:** *an introduction to agency theory and models, shareholder wealth maximization, objectives of the firm, value creation, empirical evidence.*

BM Chapter 1

CW 2 (page, 20), 14 (page 509-512)

Ang, J., Cole, R. and J. Wuh Lin, 'Agency Costs and Ownership Structure' *Journal of Finance*, Vol. 55, 2000.

Claessens, S., Djankov, S. and L. Lang, 'The Separation of Ownership and Control in East Asian Corporations', *Journal of Financial Economics* 58, 2000.

*Weeks 2-4 (class test in week 4 – lecture follows test)*

**The investment decision I (the certainty case):** *defining cash flows, financial mathematics for capital budgeting, the time value of money, the link between stock prices and cash flows, traditional techniques for capital budgeting, discounted capital budgeting techniques, net present value versus internal rate of return, mutually exclusive projects, inflation and tax in capital budgeting, capital rationing*

BM Chapters 2, 3, 5, 6

CW Chapters 2, 3

*Weeks 5-6*

**The investment decision II (the uncertainty case):** *defining risk and uncertainty, sensitivity analysis, Monte Carlo simulation, decision trees, practical problems in capital budgeting, multi-period capital budgeting and risk-adjusted discount rates, capital budgeting techniques in practice, real options and capital budgeting, strategic value analysis.*

BM Chapters 7\*, 8\*, 9, 10, 11,

CW Chapter 12

Drury, C. and M. Tayles, 'The Misapplication of Capital Investment Appraisal Techniques', *Management Decision*, Vol. 35, 1997.

Phelan, S., 'Exposing the Illusion of Confidence in Financial Analysis', *Management Decision*, Vol. 35, 1997.

\* (Material in BM chapters 7 and 8 will not be covered in the lecture and will be assumed knowledge. You will have already covered this material in FINS5513)

*Week 7*

**Performance measurement:** *evaluating firm performance post capital budgeting, methodological issues in measuring performance, accounting versus cash flow measures of performance, residual income and economic value added, relationship between firm performance and stock prices.*

BM Chapter 12

*Week 8 – No lectures (mid-session exam)*

*Weeks 9-10*

**The restructuring decision:** *the venture capital market, IPOs, the market for corporate control, motives for takeovers, measuring the gains to takeovers, takeover battles and tactics, leveraged and management buyouts, divestitures, international corporate governance issues.*

BM Chapters 15, 33, 34

CW Chapter 19, 20

Andrade, G., Mitchell, M. and E. Stafford, 'New Evidence and Perspectives on Mergers', *Journal of Economic Perspectives*, Vol. 15, 2001.

Holmstrom, B. and S. Kaplan, 'Corporate Governance and Merger Activity in the United States: Making Sense of the 1980s and 1990s', *Journal of Economic Perspectives*, Vol. 15, 2001.

*Week 11*

**The dividend decision:** *dividend policy with and without (irrelevancy theory) taxes, optimal dividend policy, clientele effects, signalling hypothesis, empirical evidence on dividend policy and firm value.*

BM Chapter 16

CW Chapter 15, 16

Fama, E. and K. French, 'Disappearing Dividends: Changing Firm Characteristics or Lower Propensity to Pay?' *Journal of Financial Economics*, Vol 60, 2001.

*Weeks 12-13*

**The financing decision:** *traditional theory of capital structure, Modigliani and Miller propositions, determinants of capital structure including agency, asymmetric information (signalling hypothesis) and corporate control considerations, impact of capital structure on capital budgeting decisions, empirical evidence on capital structure.*

BM Chapter 17, 18, 19

CW 13, 14

Booth, L., Aivazian, V., Demircug-Kunt, A. and V. Maksimovic, 'Capital Structures in Developing Countries', *Journal of Finance*, Vol. 56, 2001.

Harris, M. and A. Raviv, 'The Theory of Capital Structure', *The Journal of Finance*, 1991.

*Week 14 (class test followed by revision class)*

### **Failure to Sit an Examination**

Students should notify employers of the requirement to attend examinations. If you miss any of the class tests (for any reason – employment, sickness, timetable clashes etc.), then in exceptional circumstances (for example, hospitalisations), you may be permitted to sit the missed section at a future date when the School offers supplementary examinations. If you have been granted a supplementary exam, this information will be posted on the class web site on the last day of the examination period. You will not be advised by any other means. Failure to undertake an exam at its scheduled time does not automatically lead to reassessment (see Supplementary Exam information at the end of this handout). **It is emphasized that in the event that a supplementary exam is granted, the highest grade awarded will be a PASS for that component of the assessment.**

### **Use of Electronic Calculators During Examinations**

Students may use either a non-programmable electronic/scientific or non-programmable financial calculator (such as Texas Instruments BAI+ for examination purposes). **Note that hand-held computers, Apple Newton, personal information managers or devices with a full alphanumeric keypad or with character recognition are strictly prohibited.** Failure to follow this requirement and use an unprescribed aid during an examination is a serious offence and will be regarded as a most grave form of academic misconduct. If you are unsure about the calculator read the operating manual provided with your calculator. Students are responsible for ensuring their calculator meets with these requirements.

### **INFORMATION CONCERNING STUDENT CONDUCT AND RESPONSIBILITIES**

Students should be aware of general University, Faculty and School rules that are discussed in detail in the UNSW Calendar. However, I draw your attention to the following issues that are particularly relevant to this course.

### **Student Identification Required for All Examinations**

Student ID should be visible at all times during the examination. Students without photographic ID may not be allowed to sit the examination.

It is the student's responsibility to ensure that they are aware of the University rules concerning their degree and meet the assessment criteria in this subject. Failure to misread this document, the Faculty handbook/University Calendar or examination timetable, or to receive announcements in class or sit examinations does not mean that further assessment is automatically granted.

### **Special Consideration**

Attention is drawn to the following extract from the UNSW Calendar 'Procedures':

*'Students who believe that their performance in a subject, either during session or in an examination, has been adversely affected by sickness or any other reason should inform the Registrar and apply for special consideration in the determination of their standing. The application must be made on the 'Application for Special Consideration' form available from the Student Centre. This application explains the specific information the University requires in order to make a decision. Such requests should be lodged as soon as practicable after the occurrence and in any event not more than three days after the final examination in a subject'.*

A photocopy of all material supporting an application for special consideration, as lodged with the Registrar, must also be provided to the Lecturer-in-charge within seven (7) days of any event for which special consideration is sought (preferably before the examination).

Students should be aware that 'minor' ailments are not eligible grounds for special consideration. Any unsubstantiated request for special consideration will be considered to be 'minor'.

### **Supplementary Examinations**

**NOTE: Supplementary examinations are EXCEPTIONALLY RARE and are NOT given automatically. An ORAL component may also be required in addition to sitting a formal examination paper. If your performance (or attendance) throughout the session has not been satisfactory, or the reason why you did not attend the examination is not acceptable, you will be denied a supplementary examination. In sitting a supplementary exam, the highest grade awarded will be a PASS for that component of the assessment.**

If a student is granted a supplementary examination but does not attend that supplementary examination, he/she will not be granted further assessment except in **HIGHLY EXCEPTIONAL** circumstances. Students are advised that if they are intending to travel overseas at the end of session/year they should consider taking out travel insurance which allows supplementary examinations as valid circumstances for cancelling travel.



## **Academic Misconduct**

Attention is drawn to the following extract from the UNSW Calendar 'Procedures':

### **Academic Misconduct**

*'Students are reminded that the University regards academic misconduct as a very serious matter. Students found guilty of academic misconduct are usually excluded from the University for two (2) years. Because of the circumstances in individual cases, the period of exclusion can range from one session to permanent exclusion from the University.*

*The following are some of the actions, which have resulted in student being found guilty of academic misconduct in recent years:*

- 1. Taking unauthorised materials into an examination;*
- 2. Submitting work for assessment knowing it to be the work of another person;*
- 3. Improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination;*
- 4. Failing to acknowledge the source of material in an assignment.*

### **Acknowledgment of Sources**

*Students are expected to acknowledge the source of ideas and expressions used in submitted work. To provide adequate documentation is not only an indication of academic honesty but also a courtesy enabling the marker to consult sources with ease. Failure to do so may constitute plagiarism, which is subject to a charge of academic misconduct'.*