



UNIT OUTLINE

ACCG818 INVESTMENTS

Semester 1, 2008

**MACQUARIE UNIVERSITY
DIVISION OF ECONOMIC AND FINANCIAL STUDIES
UNIT OUTLINE**

Year and Semester:	2008, Semester 1
Unit convenor:	Dr Philip Cheng
Prerequisites	Students enrolled in this unit are expected to have completed an undergraduate unit in finance, ACCG837 Capital Markets, or an equivalent. Students who are unsure of their suitability for enrolment should seek advice from the Graduate Accounting and Commerce Centre.

Students are encouraged to read the unit outline carefully at the start of semester.

ABOUT THIS UNIT

This unit provides an introduction to the fundamental principles and their practical applications in investment analysis. With an international approach, topics include assets for investment, asset valuation, asset allocation, risk-return trade-off, portfolio management, behavioural biases in trading and investment decisions, and technical analysis. The materials covered are of practical value as well as intellectual and academic interest.

Contents covered in this unit will prepare students for career opportunities in the investment industry, and provides linkages for further studies (particularly ACCG 839 Portfolio Management) and academic research in the investment discipline. Students would also find this unit beneficial in preparing for the Chartered Financial Analysts (CFA) examinations.

Studies in this unit complement the content of related units such as ACCG806 Risk Management and Derivatives, ACCG832 Business and Financial Analysis, ACCG837 Capital Markets, ACCG838 Business Valuation, ACCG890 Corporate Financial Forecasting and ECON867 International Financial Management.

TEACHING STAFF

Convenor	Philip Cheng (Visiting Lecturer) PhD, MBus(AppFin), BA, FCPA, FABIF, CIA, CISA, ASIA, AIA
	Tel: 9850 8526 (Graduate Accounting and Commerce Centre) Email: pykcheng@efs.mq.edu.au

CLASSES

The three hour seminars for this unit consist of lectures, discussions between staff and students in topics covered in the units and revision questions, and explanation of solutions of past Chartered Financial Analysts (CFA) questions.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Textbook

BKM Z. Bodie, A. Kane and A. J. Marcus, **Investments**, McGraw-Hill, seventh edition, 2008.

Z. Bodie, A. Kane and A. J. Marcus, **Student Solutions Manual to Accompany Investments**, McGraw-Hill, seventh edition, 2008.

Seminar Notes

Additional notes on selected topics will also be provided to students.

References

H R. A. Haugen, **Modern Investment Theory**, Prentice Hall, fifth edition, 2001.

T P Tanous, **Investment Gurus**, New York Institute of Finance, 1997

S H Shefrin, **Beyond Greed and Fear**, Oxford University Press, 2002

RB F Reilly and K Brown, **Investment Analysis Portfolio Management**, Thomson, eighth edition, 2006

EG E. J. Elton and M. J. Gruber, **Modern Portfolio Theory and Investment Analysis**, John Wiley and Sons Inc., sixth edition, 2003.

J C. P. Jones, **Investments: Analysis and Management**, Wiley, ninth edition, 2004.

The text and references are available in the Reserve Collection of the library.

ASSESSMENT

The assessment for the unit consists of the following:

Mid-term examination	30%
Group assignment	20%
Final examination	50%

To pass the unit, students must obtain at least 25% out of the aggregate 50% allocated to the final exam. They must also obtain at least 50% out of the total 100% for all assessment tasks.

Mid-term and final examinations are open book examinations. Students may bring the prescribed text (with minimal notation) to the examination. Photocopy of the text will not be allowed.

Even though attendance of class does not constitute part of the assessment, record of attendance of seminars will be kept.

The GACC Examination Timetable will be available at the following address: www.gacc.mq.edu.au/cs/ttables. You are expected to present yourself for examination at the time and place designated in the GACC Examination Timetable.

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. Information about unavoidable disruption and the special consideration process is available at <http://www.reg.mq.edu.au/Forms/APSCon.pdf>

If a Supplementary Examination is granted as a result of the Special Consideration process, the examination will be scheduled after the conclusion of the official examination period.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester (the final day of the official examination period).

LEARNING OUTCOMES

Upon satisfactory completion of this unit, students should be able to understand and apply the following key and fundamental concepts in the investment process, and accordingly develop individual investment styles:

- Selection of asset types for specific objectives
- Valuation of bonds and stocks
- Selection of investment assets based on expected risk and return
- Asset allocation
- Portfolio construction
- Financial market efficiency and market anomalies
- Impact of cognitive biases on investment decisions

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop students' generic skills in a range of areas. One of the aims of this unit is to enhance the students further in the following key competencies:

Self-awareness and self-discipline;

<p>Seminar 2 (Week commencing Mar 3)</p> <p>Fundamental analysis</p> <ul style="list-style-type: none"> – Macroeconomic and industry analysis – Financial statement analysis 	<p>BKM Chs 17, 19</p> <p>Case on financial analysis</p>	
<p>Seminar 3 (Week commencing Mar 10)</p> <p>Fixed-income securities</p> <ul style="list-style-type: none"> – Term structures of interest rates – Bond prices and yields – Managing bond portfolios 	<p>BKM Chs 14-16</p>	
<p>Seminar 4 (Week commencing Mar 17)</p> <p>Equity valuation</p> <ul style="list-style-type: none"> – Dividend discount models – Price-earnings ratios – Free cash flow valuation 	<p>BKM Ch 18</p> <p>Case on stock valuation</p>	
<p>Seminar 5 (Week commencing Mar 24 - Easter Monday)</p> <p>Derivatives</p> <ul style="list-style-type: none"> – Derivatives as investment assets – Futures and options strategies 	<p>BKM Chs 20, 22</p>	
<p>Seminar 6 (Week commencing Mar 31)</p> <p>Revision for mid term examination</p> <p>Portfolio theory and practice</p> <ul style="list-style-type: none"> – Risks and returns – Index models – Asset allocation 	<p>Seminars 1 to 4</p> <p>BKM Chs 5-8</p> <p>Case on portfolio management</p>	

Seminar 7 (Week commencing Apr 7) Mid term examination		Solutions to the examination questions will be explained after the examination. Discussion of the assignment
Apr 14 - 26	Mid-semester break	
Seminar 8 (Week commencing Apr 28) Portfolio theory and practice (con't)		
Seminar 9 (Week commencing May 5) Equilibrium in capital markets – Asset pricing models – Efficient market hypothesis and evidence	BKM Chs 9 -11	
Seminar 10 (Week commencing May 12) Empirical evidence on security returns – Empirical tests on asset pricing models Portfolio performance evaluation – Conventional theory of performance evaluation	BKM Ch 13 BKM Ch 24	
Seminar 11 (Week commencing May 19) Behavioral finance	BKM Ch 12 S Chs 2 - 4	
Seminar 12 (Week commencing May 26) Summary and revision	Seminars 5, 6, 8 to 11	
Seminar 13 (Week commencing June 2) Final examination	Seminars 5, 6, 8 to 12	

ASSIGNMENT

The assignment has the following objectives:

- Facilitate the students to develop their individual investment styles
- Guide the students to apply the skills learnt in the class room to real life scenarios, helping them to realise the relevance as well as the limitations of class room knowledge
- Provide an opportunity for the students to evaluate investment performance, and appreciate the science as well as the art of the process

Form a group of 4 or 5 members of your choice.

Question 1 (about 100 words)

Select one of the world's best money managers from the reference *Investment Gurus*, or a fund manager that you are aware of, summarise his or her investment style.

Question 2 (about 200 words)

Imagine you are a fund manager of a wholesale fund.

- Explain the objectives, investment policy and style of the fund.
- Assume the fund is to be comprised of two asset types (e.g. bonds, stocks, or commodities) only. Justify your choice of the two assets types and their corresponding weightage with respect to the fund objectives.

Question 3

- From the data base ASPECT, select a minimum of 30 listed companies from an industry of your choice from the Australian stock market. Ascertain the end of day stock price for 2004, 2005, 2006 and 2007, respectively. (There is no upper limit on the number of companies and the time horizon. Bonus marks will be awarded for the extra effort. Select companies from 2 industries if the number of companies in the first industry selected is less than 30.)

Calculate the arithmetic monthly returns for the stocks selected $[(\text{stock price at the end of the month} - \text{stock price in the beginning of the month}) / \text{stock price in the beginning of the month}] \times 100\%$.

The geometric mean monthly return is calculated as follows:

$\{[1 + ((\text{stock price at the end of the year} - \text{stock price in the beginning of the year}) / \text{stock price in the beginning of the year})]^{1/12} - 1\} \times 100\%$.

- Similarly, calculate the arithmetic monthly return and geometric mean return monthly return of the All Ordinaries Index.

For (a) and (b), prepare the following table (**Table 1**) first as a printed appendix to your hard-copy assignment and second as a spreadsheet in a virus-free CD.

Industry	Company		Year	Month	Price in beg of month	Price at end of month			
	Code	Name							
Market		All Ordinaries	2004	Jan					
			...	Dec					
		2005	Jan						
		...	Dec						
		2006	Jan						
		...	Dec						
		2007	Jan						
		...	Dec						
		Company 1		2004	Jan				
					...	Dec			
				2005	Jan				
					...	Dec			
				2006	Jan				
					...	Dec			
				2007	Jan				
					...	Dec			
				Company 2					
				etc					

c) Complete the following table (**Table 2**) and comment on the difference between the arithmetic average monthly return and geometric mean monthly return.

Statistics of Monthly Return for (<i>Industry selected</i>)						
	2004		2005...2006		2007	
	Arithmetic average	Geometric mean	Arithmetic average	Geometric mean	Arithmetic average	Geometric mean
All Ordinaries						
Company 1						
Company 2						
Company 3						
etc						

- d) Rank all the companies in the industry in ascending order of market capitalisation as at 31 December, 2007. Split the companies more or less equally into three equally-weighted portfolios by market capitalisation: small (Portfolio 1), medium (Portfolio 2) and small (Portfolio 3).
- e) Using the geometric mean monthly returns in 3 (a) and 3(b), depict for years 2004, 2005, 2006, and 2007, respectively:
- the characteristics line (CL) [x axis is the monthly return of All Ordinaries; Y axis is the corresponding monthly return of the portfolios 1, 2 and 3; slope of CL is the beta for the year; intercept on the y axis is the alpha for the year]. There should be three graphs, one for each portfolio. On each graph, there should be three CLs, one for each year.
 - security market line (SML) [For each year, x axis is the beta of portfolios 1, 2 and 3 and All Ordinaries Index, which is 1; Y axis is the geometric mean monthly returns of portfolios 1, 2 and 3 and All Ordinaries] There should be three SMLs on the graph, one for each year.
- f) Complete the following table (**Table 3**) from the graphs of the characteristic line:

Descriptive Statistics for Portfolios 1, 2 and 3									
	2004			2005...2006			2007		
Portfolio	Geometric mean monthly return	Alpha	Beta	Geometric mean monthly return	Alpha	Beta	Geometric mean monthly return	Alpha	Beta
1									
2									
3									

g) Comment and provide reasons if you can on each of the following (**about 100 words for each part**):

- (i) The relationship between geometric mean monthly return and beta – do your findings support the theory that higher beta associates with higher return?
- (ii) Stability of alpha and beta based on the characteristics line (CL) – are alpha and beta stable over time?
- (iii) Validity of CAPM based on the security market lines (SML) – do portfolios 1, 2 and 3 all lie on the same SML?
- (iv) Performance of portfolios based on market capitalisation.
- (v) Do your findings display the January Effect?

ASPECT is financial database that is available from many terminals in the Macquarie Library. Please consult the Reference Desk of the Library for assistance if required.

Due date: Seminar 12.

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

The interactive mode of the seminars, discussion of the revision questions, and the tasks required of the assignment are all designed to facilitate students to formulate and subsequently apply the key and fundamental concepts in the investment process, and to develop the associated analytical, problem-solving and research skills.

While both mid-term and final examinations are designed to assess the degree that the students have achieved the learning outcomes, the mid-term examination also serves an interim check point on the progress of the students, so that assistance and guidance could be provided to the students in their learning process where appropriate.

On the spot verbal communication and quick thinking skills are enhanced by the interactive mode of the seminar.

PLAGIARISM

The University defines plagiarism in its rules: "Plagiarism involves using the work of another person and presenting it as one's own." Plagiarism is a serious breach of the University's rules and carries significant penalties. Please be familiarise with the University's practices and procedures on plagiarism. These can be found in the *Handbook of Undergraduate Studies* or on the web at: <http://www.student.mq.edu.au/plagiarism/>

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the

penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

UNIVERSITY POLICY ON GRADING

Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardised numerical grade (SNG).

On occasion your raw mark for a unit (i.e., the total of your marks for each assessment item) may not be the same as the SNG which you receive. Under the Senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of their students should achieve similar results.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scaled mark.

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services is available at <http://www.student.mq.edu.au>.



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Group Assignment Cover Sheet

Number	Student		Description of work undertaken	Percentage of contribution to the Group Assignment
	Printed name	Signature		
1.				
2.				
3.				
4.				
5.				

Date assignment submitted:.....