Morgan Stanley
DEPARTMENT OF ACCOUNTING AND FINANCE
SECURITY ANALYSIS
CLASS CODE: AG306
2014/15 SEMESTER 1

NAMES OF LECTURERS:
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NAMES OF TUTORS:
TBC

CLASS DESCRIPTION
The class is primarily concerned with the valuation of securities. It develops an understanding of how bonds, shares, futures and options are valued, and considers some of the investment strategies associated with these securities.

CLASS AIMS
The class aims to build upon the fundamentals of security valuation that were introduced in the 1st year Introduction to Finance and Accounting (AG151), and alluded to in Portfolio Analysis (AG211). This present class will enable students to solve both simple and complex problems relating to the valuation of securities, and to link investment processes and strategies with valuation concepts.

LEARNING OUTCOMES
The following learning outcomes will contribute to your self-analysis and reflection in your Student’s Personal Development Planning (SPDP). These learning outcomes will be assessed using the methods explained in the “Assessment” section in this Outline.

Subject-specific knowledge and skills
Please contact Jillian D’Agostino in the departmental office of Accounting and Finance if alternative formats of teaching materials are required or if you need any other assistance.
On successful completion of this class you will have the ability to apply relatively advanced valuation principles to the main categories of securities that are traded in financial markets. You will also have an appreciation of the strengths and weaknesses of security valuation models, and of some of the important investment management strategies. More specifically you will be able to understand and explain the following:

A1 The characteristics of BONDS, and how the principles of present value extend from simple to complex valuation processes
A2 Spot and forward rates of interest, how these may be estimated, and how they are linked
A3 The term structure of interest rates, how this is derived, and alternative explanations
A4 The principles of bond portfolio management, in particular portfolio immunisation and duration
A5 The principles of EQUITY valuation using models of dividends and earnings
A6 Models of the growth patterns of prices, earnings and dividends, and the role of price-earnings ratios, and models of share selection
A7 FUTURES contracts and the operations of financial futures markets
A8 Hedging, speculation and arbitrage using futures
A9 The characteristics of OPTIONS, and their strategic and speculative uses.
A10 The valuation of options, the Black-Scholes Option Pricing Model
A11 Hedging and Arbitrage using options
A12 Sources of information on bonds, equities, futures and options, and how data may be obtained and analysed

Cognitive abilities and non-subject specific skills

The class aims to develop:
B1 the ability to engage in complex valuation processes, and to link theory with practice in a way which recognises the imperfections in such links.
B2 the ability to see the importance of academic analysis in improving our understanding of real world behaviour, despite its perceived limitations in fully explaining what we observe
B3 the ability to access known information and data sources, and also to independently seek out sources of information and data
B4 the ability to use data and other information to examine theoretical ideas, to illustrate concepts, and to inform decision making
B5 the ability to communicate one’s own understanding to others.

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ASSESSMENT

Class test 25%  Held on Monday 10th November (week 7) during the lecture period
Group Assignment 15%  Given out on Monday 17th November (week 8). Submission deadline: 12.00 on Monday 8th December (week 11)
Final Examination 60%  Held in January 2015
Total 100%

Overall mark = (0.25 × class test) + (0.15 × assignment) + (0.6 × final exam)
The overall mark required to pass is 40%
Note that completion of all three modes is necessary to pass the class.

More information on the assignment is provided later in the semester. The assignment is an opportunity to demonstrate the wider cognitive skills necessary to blend theory with practice, and to interpret this, and to effectively communicate your understanding in a written project.

IMPORTANT

The class test and assignment are compulsory. If you fail to sit the class test you will be given a mark of 0% for the class test. If you are late in submitting the group project you will incur the following late penalties

- 1 day late    deduct 5% of mark allocated
- 2 days late   deduct 10% of mark allocated
- 3 days late   deduct 20% of mark allocated
- 4 days late   deduct 40% of mark allocated
- 5 days late   deduct 80% of mark allocated
- After 5 days   deduct 100% of mark allocated.

If you are prevented from taking any of these through illness or personal circumstances, you must inform the departmental office as soon as possible.

Reassessment

Students who fail the class must take the resit examination in August 2014, which then counts for 100% of the final mark, i.e. the class test and assignment marks cannot be carried forward.

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TEACHING AND LEARNING

LECTURES
There is a 2-hour lecture each week on Monday 3-5 in GH514.
Students are introduced to the main themes and topics in the lectures. Morgan Stanley will be sponsoring a prize for the best two overall students in Security Analysis. Also staff from the finance department will be participating in lectures.

WORKSHOPS – each week students are expected to solve a set of questions which are handed to them at the end of each lecture. Students are then given the opportunity to discuss potential queries concerning those questions in workshops. The days/times of the workshops are detailed below.
Active participation in workshops is important and it is essential that students prepare the workshop questions in advance. The workshops are key sources of feedback on your progress. Students are expected to supplement their learning by reading the prescribed textbook(s) and (occasionally) articles from academic journals.

Workshop times: Thursdays 2pm and 3pm, Fridays 10 am, 11am and 12pm.
You should register for a workshop online through the class site on MyPlace. Each group is limited to a maximum number of students so allocation is based on first come first served.

Satisfactory attendance at workshops and completion of workshops assignments are requirements of the class. Persistent non-attendance may lead to disqualification from the class. You must inform us if there are any reasons that prevent you from attending on a regular basis.

PREREQUISITES

AG210 Business Finance
(or equivalent class for direct entry 3rd year students)

READING
(Earlier editions are just titled Investments, and are ok to use)

The above is the main course text and is recommended for purchase. The library stocks a limited number of these textbooks, some of which are in the Short Loan section.

The following text is essential reading

Useful additional texts:

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LECTURE PROGRAMME*

Week
1 (29 Sep)  *University closed*  therefore no lecture on Monday, please check myplace for homework

2 (6 Oct)  **Basics of Bond Valuation**
  References: BKM 14  WORKSHOP 1

3 (13 Oct)  **Term Structure of Interest Rates**
  References: BKM 15  WORKSHOP 2

4 (20 Oct)  **Bond Portfolio Management**
  Key features of the price-yield relationship, bond price sensitivity. Bond Duration, measurement and importance. Interest rate risk and portfolio immunisation strategies. Modified duration, convexity and the price-yield relationship. Usefulness of zero coupon bonds (Gilt Strips)
  References: BKM 16  WORKSHOP 3

5 (27 Oct)  **Valuation of Shares**
  Share valuation, dividends models. Growth patterns of dividends, earnings and prices.
  References: BKM 22  WORKSHOP 4

6 (3 Nov)  **Price Earnings Relationship**
  Share valuation using earnings models. The structure of price-earnings ratios, models based on price-earnings ratios.
  References: BKM 22  WORKSHOP 5

7 (10 Nov)  **CLASS TEST**  (assessed = 25% of marks for class)
  NO WORKSHOP

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8 (17 Nov) **Introduction to Futures**  *(Assignment given out in this class)*
Characteristics of futures, profit/loss from futures trades, marking to market and the margin account, motives for trading in futures, illustration of hedging with futures, the hedge ratio.

References: Hull 1,2,3  BKM 19,20  WORKSHOP 6

9 (24 Nov) **Pricing of Futures, Hedging and Arbitrage**
Futures and Forwards compared, valuation of futures, mispricing and arbitrage.

References: Hull 5  BKM 19,20  WORKSHOP 7

10 (1 Dec) **Mechanisms of Options Markets and Properties of Stock Options**
Call and put options, intrinsic value and time value, European and American. Trading in options, option positions and strategies.

References: Hull 1,8,9  BKM 17  WORKSHOP 8

11 (8 Dec) **Assignment due in by 12.00 today**
**Valuation of Options**
The Black-Scholes option pricing model (BSOPM), put-call parity. Market prices and BSOPM, impact of dividends and volatility. Mispricing and arbitrage

References: Hull 13,17  BKM 18  WORKSHOP 9

12 (15 Dec) **Trading Strategies and Valuation of Options**
The Greek letters and options, hedging, option elasticity. Volatility smiles and other empirical irregularities.

References: Hull 10,11  BKM 18  NO WORKSHOP

*The content of lectures in weeks 8-12 may vary depending on the availability of a guest speaker.*

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# 2011/12 Marking Guide

The following marking guide is consistent with the Universal Marking Guide for Undergraduate Courses contained in the University’s Teaching and Learning Guide (December 2003).

<table>
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<tr>
<th>%</th>
<th>Descriptor</th>
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<tr>
<td>90-100</td>
<td><strong>A</strong>* Truly Exceptional/Outstanding demonstration of learning outcomes:</td>
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<td></td>
<td>• wide, appropriate knowledge and understanding (and where appropriate effective project work) including insight and/or originality</td>
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<td>80-89</td>
<td><strong>A</strong> Excellent demonstration of learning outcomes:</td>
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<td></td>
<td>• wide, appropriate knowledge and understanding (and where appropriate effective project work) including insight and/or originality</td>
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<td>70-79</td>
<td><strong>B</strong> Comprehensively Good demonstration of learning outcomes:</td>
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<td>• wide appropriate knowledge and understanding (and where appropriate effective project work) with only occasional lapses in detail</td>
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<td>60-69</td>
<td><strong>C</strong> Generally Good demonstration of learning outcomes:</td>
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<td>• sound knowledge and understanding of essential material (and where appropriate essential project skills)</td>
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<td>50-59</td>
<td><strong>D</strong> Satisfactory demonstration of learning outcomes:</td>
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<td>• basic knowledge and understanding (and where appropriate basic project skills)</td>
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<td>40-49</td>
<td><strong>E</strong> Poor performance in learning outcomes:</td>
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<td>• some relevant information and limited understanding (and where appropriate some project work completed under supervision)</td>
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<td>30-39</td>
<td><strong>F</strong> Weak performance in learning outcomes:</td>
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<td>• a few key words or phrases</td>
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<td>20-29</td>
<td><strong>G</strong> No relevant work submitted for assessment</td>
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