

# National University of Singapore The NUS Business School

# **ACC3614 – Valuation**

(Semester 1, 2016/2017)

#### **Objectives**

- 1. To equip students with the key concepts and understanding in valuation of major asset classes: Bonds, Fixed Income, Financial Derivatives, Real Estate, Equities, Intangibles and M&A.
- 2. To equip students with the key concepts and understanding in using fair value measurement for assets as required by the Singapore Financial Reporting Standards.

#### **Coverage of the Module**

Upon successful completion of this module, students will have knowledge of the following:

- Valuation requirements of FRS 16, 17, 32, 36, 38, 39, 40, 102, 103, 107 and 113
- Basics in valuations (parameters, models and applications)
- Various valuation methodologies
- Valuation of different asset classes: Bonds, Fixed Income, Financial Derivatives, Real Estate, Equities, Intangibles and M&A.

#### **Learning Outcomes**

Upon successful completion of this module, students will be able to:

- Understand the basic economic theory that drives valuation
- Understand the requirements of fair value accounting
- Understand what are the major valuations methods of the various asset classes
- Able to apply the valuation methods to the requirements of the various FRSs in Singapore for accounting purposes.

#### **Textbooks**

Aswath Damodaran, "Investment Valuation: Tools and Techniques for Determining the Value of any Asset", University Edition, Wiley, 3rd Edition. (Chapters: 1-4, 6-26, 30)

John C Hull, Options, Futures, and Other Derivatives, Edition 8/E, Pearson Publishing. (Chapters: 7, 9-12, 14-17, 24, 28-31)

Frank J. Fabozzi, Bond Markets, Analysis, and Strategies, Edition 8/E, Pearson Publishing. (Chapters: 2-5, 10, 14, 15, 17-19)

#### **Instructors**

| Professor Ho Yew Kee | Weeks 1, 7-12 | bizhoyk@nus.edu.sg | Biz 1, #07-18 | 9675 2884 |
|----------------------|---------------|--------------------|---------------|-----------|
| Prof Chua Kim Chiu   | Weeks 4 to 6  | kcchua@nus.edu.sg  | Biz 1, #07-24 | 6516 8227 |
| Mr Kelvin Tan        | Weeks 2 & 3   | biztwpk@nus.edu.sg | Biz 2, #03-42 | 8838 9698 |

Please email or arrange with the instructors for consultation if you need their help or advice.

#### Class

The classes will be arranged into three groups and will be held on:

- Monday: 8.00am to 11.00am (Biz 1 Room 02-06)
- Tuesday: 8.00am to 11.00am (Biz 1 Room 02-06)
- Wednesday: 8.00am to 11.00am (Biz 1 Room 02-06)

You are expected to strictly attend the group which you have been assigned as pop quizzes and practice sets will be conducted in those groups. The group project will be with members from the group you have been assigned.

Due to exigencies and you are unable to attend your assigned group for any particular week, you need to get clearance from the instructor.

Lecture will start at 8.00am sharp as time is of the essence and your participation in the group will be tracked accordingly.

### **Expectations**

The class will begin promptly on the scheduled time. Please be on time! Lecture notes will be uploaded to IVLE before the start of class each week. Students are advised to read the lecture notes and the chapters of the recommended textbook (refer to the detailed syllabus below) before class each week. Additional readings assigned would also be uploaded to IVLE before each lecture. No physical handouts will be given in class. Students are expected to download and print the materials if they so desire to have a hard copy.

Since we are training accounting professionals, ethics and professionalism are extremely important. Please take note of the NUS Code of Conduct. If any student is found violating the code of conduct or cheating in quizzes, tests or project, this may result in the student obtaining zero for the relevant assessment or failing the whole module. We take ethical conduct very seriously.

#### Midterm Test (30%)

There is a midterm test in addition to a final test. It is your responsibility to be present for the mid-term test. Invalid absence from the mid-term test will be given a score of zero. Excused absence will be given only in **EXCEPTIONAL CIRCUMSTANCES** as allowed by NUS policies. These situations **MUST** be arranged in writing prior to the mid-term test if possible.

All materials covered during the semester in <u>Week 1 to 6</u> in lectures, presentations, assignments, and assigned readings are examinable. All University-approved calculators are permitted. Any other electronic and mobile devices e.g. laptop, smartphones and mobile phones are not allowed. The format of the mid-term tests will be made known to you in due time. Students are allowed to bring in <u>2 SHEETS</u> of A-4 size paper as fact-sheet for the mid-term test.

### Final Test (30%)

It is your responsibility to be present for the final test. Invalid absence from this final test will be given a score of zero. Excused absence with make-up test will be given only in **EXCEPTIONAL CIRCUMSTANCES** as allowed by NUS policies. These situations **MUST** be arranged in writing prior to the final test if possible.

All materials covered during the semester from Week 7 to 12 in lectures, presentations, assignments, and assigned readings are examinable. The basic knowledge in Week 1 to 6 are expected to be learnt by the students. Any other electronic and mobile devices e.g. laptop, smartphones and mobile phones are not allowed. Students are allowed to bring in **2 SHEETS** of A-4 size paper as fact-sheet for the final test.

## **Class Participation**

Your participation mark will be dependent on your participation in class and the value add your presence and interactions would create for the class or with the instructors with respect to the knowledge and materials covered in the module.

# Pop Quiz and Group Assignment

Information pertaining to the pop quizzes and the group assignment will be provided in class.

#### **Assessment**

| Content |  |       | Allocation |
|---------|--|-------|------------|
| a.      | Class Assignments and Participation                    |       |            |
|         | <ul> <li>Class participation and discussion</li> </ul> | - 10% | 40%        |
|         | • 4 pop quizzes where 3 best will be recognized –      | - 15% | 40%        |
|         | • 1 Group assignment –                                 | - 15% |            |
| b.      | b. Mid-Term Test (Monday, 26 September 2016 at 6pm)    |       | 30%        |
| c.      | Final Test (Friday, 11 November 2016 at 6pm)           |       | 30%        |
|         | TOTAL  |       | 100%       |

# **Detailed Syllabus**

| Week<br>Beginning   | Topics  | Text Book and<br>Additional Materials   |  |  |
|---|---|---|--|--|
| Week 1<br>8 Aug   | Introduction to Fair Value Accounting and Overview of Valuation (Professor Ho Yew Kee)  | Damodaran<br>Chap 1-3<br>FRS 39 and 113   |  |  |
|   | <ul> <li>Purposes of Valuation</li> <li>Requirements of FRS 39 and 113</li> <li>Fundamentals of Valuation</li> </ul>  | Due to National day, the<br>first class will be on 13<br>Aug 2016, Saturday<br>9.00am to 12.00pm<br>Venue to be Announced |  |  |
|   | Real Estate Valuation (Mr Kelvin Tan)   |   |  |  |
| Week 2<br>15 Aug  | <ul> <li>FRS 16 and FRS 40</li> <li>Market Approach</li> <li>Cost Approach</li> <li>Hedonic valuation</li> </ul>  | Damodaran<br>Chap 26  |  |  |
| Week 3<br>22 Aug  | <ul> <li>Mergers and Acquisitions (Mr Kelvin Tan)</li> <li>Theory and Types of M&amp;A</li> <li>Value Creation for M&amp;As</li> <li>Valuation of Target and Synergy</li> </ul>           | Damodaran<br>Chap 25  |  |  |
| Week 4<br>29 Aug  | Bonds and Fixed Income Instruments (Professor Chua Kim Chiu)  • Structure and characteristics of Bonds  • Valuation of Bonds  • Valuation of Fixed Income Instruments with                | Fabozzi<br>Chapters 2, 3, 5, 17 and 19  |  |  |
|   | Embedded Characteristics  |   |  |  |
| Week 5<br>5 Sep   | <ul> <li>Financial Derivatives I (Professor Chua Kim Chiu)</li> <li>Valuating Swaps</li> <li>Types of Financial Derivatives</li> <li>Challenges in Valuing Derivatives</li> </ul>         | Hull<br>Chapters 7 and 28   |  |  |
| Week 6<br>12 Sep  | <ul> <li>Financial Derivatives II (Professor Chua Kim Chiu)</li> <li>Black-Scholes Option Pricing Model</li> <li>Valuing Options</li> <li>Valuation of Stock Options (FRS 102)</li> </ul> | Hull Chapters 9, 10, 12, 14-17 (Make up class due to Hari Raya Haji – 12 Sep 2016) Venue to be Announced                  |  |  |
| Recess Week (17 Sep to 25 Sep, 2016) (Mid-Term Test: 26 September 2016, Monday at 6pm) (Venue will be announced in class) |   |   |  |  |

|                   | Equity Valuation I (Professor Ho Yew Kee)  |                         |  |
|-------------------|--|-------------------------|--|
| Week 7<br>26 Sep  | Basic Valuation Parameters and Models for Equity   | Damodaran               |  |
|                   | Quantifying the Parameters : Discount Rates, Tim<br>Horizon, Terminal Value, Growth, Cash Flows etc. | Chap 4,6-8              |  |
| Week 8            | Equity Valuation II (Professor Ho Yew Kee)   | Damodaran               |  |
| 3 Oct             | Income Approach to Valuation   | Chap 9 - 15             |  |
| Week 9            | Equity Valuation III (Professor Ho Yew Kee)  | Damodaran               |  |
| 10 Oct            | Relative Valuation   | Chap 17-20              |  |
| Week 10           | Valuation Challenges I (Professor Ho Yew Kee)  |                         |  |
| 17 Oct            | Young or Start-up Firms  | Damodaran<br>Chap 21-24 |  |
|                   | Private Firms  | Chap 21-24              |  |
|                   | Distressed Firms   |                         |  |
| Week 11<br>24 Oct | Valuation Challenges II (Professor Ho Yew Kee)   |                         |  |
|                   | Young or Start-up Firms  | Damodaran               |  |
|                   | Private Firms  | Chap 21-24              |  |
| 24 001            | Distressed Firms   |                         |  |
|                   | Valuation and Treatment of Goodwill (FRS103)   |                         |  |
|                   | (Professor Ho Yew Kee)   |                         |  |
| Week 12           | Types of Intangible Assets   | FRS 36 and 38           |  |
| 31 Oct            | Impairment and Intangibles   |                         |  |
|                   | Accounting Treatment for Impairments   |                         |  |
|                   | Final Test   |                         |  |
|                   | (11 November 2016, Friday at 6pm)<br>(Venue will be announced in class)                              |                         |  |

#### **CODE OF CONDUCT (ABSTRACT)**

You are being trained as an accountant and it is imperative that you acquire good ethical and professional values. NUS expects students to behave in a most honorable manner. Actions will be taken for any violation of ethical or professional conduct and this includes the award of a fail grade or zero for any assignment, test or even the whole module.

#### **NUS Code of Student Conduct**

As a widely respected institution of higher learning, the National University of Singapore (NUS) is dedicated to cultivating academic and personal excellence in a way that is inclusive and supportive, where communal values as well as the dignity and rights of each person are respected.

NUS students are expected to maintain and uphold the highest standards of integrity and honesty at all times, as well as embrace community standards, diversity and mutual respect for one another, both within the University and the wider Singapore community.

This Code of Student Conduct is intended to guide students' conduct in both the academic and non-academic aspects of their University life by providing an overview of the behaviour generally expected of them as members of the University community. It is meant to serve as a broad framework, and should not be treated as an exhaustive list.

In line with the above, the University expects students to uphold both the spirit and letter of this Code of Student Conduct at all times.

#### Academic, Professional, and Personal Integrity

The University is committed to nurturing an environment conducive for the exchange of ideas, advancement of knowledge and intellectual development. Academic honesty and integrity are essential conditions for the pursuit and acquisition of knowledge, and the University expects each student to maintain and uphold the highest standards of integrity and academic honesty at all times.

The University takes a strict view of cheating in any form, deceptive fabrication, plagiarism and violation of intellectual property and copyright laws. Any student who is found to have engaged in such misconduct will be subject to disciplinary action by the University.

It is important to note that all students share the responsibility of protecting the academic standards and reputation of the University. This responsibility can extend beyond each student's own conduct, and can include reporting incidents of suspected academic dishonesty through the appropriate channels. Students who have reasonable grounds to suspect academic dishonesty should raise their concerns directly to the relevant Head of Department, Dean of Faculty, Registrar, Vice Provost or Provost.