FINM4017
Trading and Markets

Course Description

Most finance courses assume that markets are efficient and that securities can be issued and traded easily and at no cost. In practice markets are more complex and there are substantial costs associated with issuing and trading securities. This course therefore explores (i) how markets are organised; (ii) how trading is conducted in these markets; (iii) the role of different types of market participants; and (iv) how markets are regulated. It considers how these factors influence price formation and investment returns.

<table>
<thead>
<tr>
<th>Semester and Year</th>
<th>S2 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode of Delivery</td>
<td>Lecture (Mon 11-1pm; JD101), Workshop (Mon 3-4pm; JD101) and Tutorial (Wed)</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>To enrol in this course you must have completed FINM7007 and FINM7008 and FINM7041</td>
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<tr>
<td>Incompatible Courses</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Course Convener
Associate Professor Wai-Man (Raymond) Liu
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Phone: (02) 6125 3471
Email: waiman.liu@anu.edu.au
Consultation hours: Mon 4-5pm

Bio and research interests

Tutor
Philip Drummond, philip.drummond@anu.edu.au (Weeks 1-2, 7-13)
Khadija Islamova, khadija.islamova@anu.edu.au (Weeks 3-6)

Student Administrators
Patty Penm, Room 4.48, College of Business and Economics
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http://programsandcourses.anu.edu.au/course/FINM4017

SEMESTER 2
2017
COURSE OVERVIEW

Learning Outcomes
Upon successful completion of the requirements for this course, students will be able:

1. To understand how securities are traded in markets around the world and appreciate how this influences trading costs and liquidity;
2. To understand the role of regulation and trading rules and how they impact participants in financial markets;
3. To understand how price formation can be influenced by market architecture;

Research-Led Teaching
While students are not directly engaged in the research as part of the learning process, the course will cover significant materials including conference papers and journal articles that reflect the cutting edge research in the relevant area. My aim is to integrate and emphasise how academic research can influence industry practice and policy making, and through these research works, students would be encouraged to think outside of the box.

Continuous Improvement
We use feedback from students, professional bodies and staff to make regular improvements to the course. In response to this feedback, design improvements from the previous version of the course include:

- Refinement of the trading game to enhance student’s learning experience;
- Providing prompt feedback on their assessments.

Technology, Software, Equipment
A significant part of the course will include repeated sessions of trading game, which will be conducted during the tutorial session. The objective of the trading game is to enable students to familiarize the fundamental concepts of price discovery, informed/uninformed trading, price formation process and trading rules through a stock market simulator co-developed by A/P Marvin Wee and A/P Wai-Man Liu that simulates the ASX trading environment. The game reproduces some of the key features of an open limit order book through an online portal so that participating students will be able to interact like active traders, and enhance their understanding the microstructure of a stock market through learning by doing. All game sessions will be conducted during the tutorial and students are required to bring their notebook or tablet to play the game.

A non-programmable scientific calculator is needed for every enrolled student in studying this course. It is students’ responsibility to learn how to use their calculators.

In order to enhance interaction within the class, I will be using the 'Poll Everywhere' app (ANU license) for many of my lectures. It works from your phone/notebook or IPad devices. Please see below for the link, would you please download this free app using the link below:


Requisites
N/A

Feedback
Staff Feedback
Students will be given feedback via verbal comments during lecture or WATTLE discussion forum
Student Feedback
ANU is committed to the demonstration of educational excellence and regularly seeks feedback from students. One of the key formal ways students have to provide feedback is through Student Experience of Learning Support (SELS) surveys. The feedback given in these surveys is anonymous and provides the Colleges, University Education Committee and Academic Board with opportunities to recognise excellent teaching, and opportunities for improvement. For more information on student surveys at ANU and reports on the feedback provided on ANU courses, go to http://unistats.anu.edu.au/surveys/selt/students/ and http://unistats.anu.edu.au/surveys/selt/results/learning/

Policies
ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University’s academic standards, and implement them. You can find the University’s education policies and an explanatory glossary at: http://policies.anu.edu.au/

Students are expected to have read the Academic Misconduct Rules 2014 before the commencement of their course.

Other key policies include:
- Student Assessment (Coursework)
- Student Surveys and Evaluations

Required Resources
Commonwealth supported students and domestic full-fee paying students generally must be able to complete the requirements of their program of study without the imposition of fees that are additional to the student contribution amount or tuition fees. Provided that its payment is in accordance with the Act, a fee is of a kind that is into any one or more of the following categories:
(a) It is a charge for a good or service that is not essential to the course of study.
(b) It is a charge for an alternative form, or alternative forms, of access to a good or service that is an essential component of the course of study but is otherwise made readily available at no additional fee by the higher education provider.
(c) It is a charge for an essential good or service that the student has the choice of acquiring from a supplier other than the higher education provider and is for:
   (i) equipment or items which become the physical property of the student and are not consumed during the course of study; or
   (ii) food, transport and accommodation costs associated with the provision of field trips that form part of the course of study.
(d) It is a fine or a penalty provided it is imposed principally as a disincentive and not in order to raise revenue or cover administrative costs.

Additional course costs
Undertaking this subject incurs no additional costs other than textbooks and course materials.

Examination material or equipment
Non-programmable scientific calculator

Recommended Resources

Prescribed textbooks:

Additional reading materials including journal articles, newspaper articles will be available on WATTLE.
<table>
<thead>
<tr>
<th>Week (date)</th>
<th>Lecture (Monday 11am-1pm)</th>
<th>Tutorial (Wednesday)</th>
<th>Workshop (Monday 3-4pm)</th>
<th>Required student preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (24/7)</td>
<td>The Role of Markets &amp; Trading Process</td>
<td>-</td>
<td>-</td>
<td>Teall Ch. 1, de Jong Ch. 1</td>
</tr>
<tr>
<td>2 (31/7)</td>
<td>Order Driven Markets &amp; Intermediated Markets</td>
<td>Trading Game 1 (introduction) + Tutorial Questions</td>
<td>-</td>
<td>Teall Ch. 2, de Jong Ch. 1-2</td>
</tr>
<tr>
<td>3 (7/8)</td>
<td>Analysis of Prices I: Random Walk, Price Formation Process and Roll Model</td>
<td>Trading Game 2 (warm up) + Tutorial Questions</td>
<td>Analysis of trading data</td>
<td>de Jong Ch. 3-6, 9 additional readings</td>
</tr>
<tr>
<td>4 (14/8)</td>
<td>Analysis of Prices I: Extensions of the Roll Model</td>
<td>Trading Game 3</td>
<td>Analysis of trading data</td>
<td>de Jong Ch. 3-6, 9 additional readings</td>
</tr>
<tr>
<td>5 (21/8)</td>
<td>Public Information Arrival</td>
<td>Trading Game 4</td>
<td>Analysis of trading data</td>
<td>Teall Ch. 11, de Jong Ch. 3-6, additional readings</td>
</tr>
<tr>
<td>6 (28/8)</td>
<td>Adverse Selection, Trading &amp; Spreads I</td>
<td>Trading Game 5</td>
<td>Analysis of trading data</td>
<td>Teall Ch. 5, de Jong Ch. 3-6</td>
</tr>
</tbody>
</table>

**Mid-Semester Exam: 1 September (cover materials from weeks 1-6)**

**Mid-Semester Break: 4 September – 15 September (inclusive)**

| 7 (18/9)   | Adverse Selection, Trading & Spreads II | Trading Game 6 | Analysis of trading data | Teall Ch. 5, de Jong Ch. 3-6 additional readings |
| 8 (29/9)   | The Impact of Trading Rules on Trading Outcomes (Monday lecture will be rescheduled to Friday 9-11am due to Public Holiday) | Trading Game 7 | Analysis of trading data | de Jong Ch. 10, additional readings |
| 9 (6/10)   | Liquidity and benchmarking (Monday lecture will be rescheduled to Friday 9-11am due to Public Holiday) | Trading Game 8 | Analysis of trading data | de Jong Ch. 7 additional readings |
| 10 (9/10)  | Hasbrouck’s Information Share | Tutorial questions | Lecture | de Jong Ch. 9 additional readings |
| 13 (30/10) | Current issues in markets | Assigned Tutorial questions | - | additional readings |

**Examination (cover materials from weeks 1-13)**
COURSE ASSESSMENT

The ANU is using Turnitin to enhance student citation and referencing techniques, and to assess assignment submissions as a component of the University's approach to managing Academic Integrity. For additional information regarding Turnitin please visit the ANU Online website. Students may choose not to submit assessment items through Turnitin. In this instance you will be required to submit, alongside the assessment item itself, copies of all references included in the assessment item.

Assessment Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Title</th>
<th>Value</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Participation of Trading Game (At least 7 out of 8)</td>
<td>15%</td>
<td>During Tutorial session</td>
</tr>
<tr>
<td>2</td>
<td>Mid-Semester Exam</td>
<td>25%</td>
<td>1 September</td>
</tr>
<tr>
<td>3</td>
<td>Final Exam</td>
<td>60%</td>
<td>TBA</td>
</tr>
</tbody>
</table>

How well have you achieved the learning outcomes for this course? Your lecturer makes this judgement based on your assignments and examination papers. This table illustrates how each assessment item provides evidence about your achievements against each learning outcome.

<table>
<thead>
<tr>
<th>Upon successful completion of the requirements for this course, students will be able to:</th>
<th>Mid-Semester Exam</th>
<th>Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand how securities are traded in markets around the world and appreciate how this influences trading costs and liquidity;</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>To understand the role of regulation and how they impact participants in financial markets</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Understand how price formation can be influenced by market architecture and information;</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Understand the role of information in the price formation process;</td>
<td>X</td>
<td>X</td>
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Assessment Tasks:

Trading Game Participation

- Students are **required** to participate at least 7 out of 8 trading games during tutorial session from week 2 to week 9. Students who fail to do so will receive 0 participation mark.

Examinations

- Mid-Semester Examination – 1.5 hours (Date: 1 September). Total weighting: 25%. This is a closed book exam with no formula sheet. A mixture of theory and practical (numerical) questions will be asked. Students will need to review and revise all materials (weeks 1-6) pertaining to the course. **No past exam papers are available for practice.**
- Final Examination – 3 hours (Date: TBA). Total weighting: 60%. This is a closed book exam with no formula sheet. A mixture of theory and practical (numerical) questions will be asked. Students will need to review and revise all materials (weeks 1-13) pertaining to the course. Students will be provided with further details regarding the exam as it approaches. The marking criteria will be based on model solutions and answers prepared by the lecturer. **Past exam papers will be available for practice.**

Scaling

Your final mark for the course will be based on the raw marks allocated for each assignment or examination. However, your final mark may not be the same number as produced by that formula, as marks may be scaled. Any scaling applied will preserve the rank order of raw marks (i.e. if your raw mark exceeds that of another student, then your scaled mark will exceed or equal the scaled mark of that student), and may be either up or down.
Privacy Notice
The ANU has made a number of third party, online, databases available for students to use. Use of each online database is conditional on student end users first agreeing to the database licensor’s terms of service and/or privacy policy. Students should read these carefully.

In some cases student end users will be required to register an account with the database licensor and submit personal information, including their: first name; last name; ANU email address; and other information.

In cases where student end users are asked to submit ‘content’ to a database, such as an assignment or short answers, the database licensor may only use the student’s ‘content’ in accordance with the terms of service – including any (copyright) licence the student grants to the database licensor.

Any personal information or content a student submits may be stored by the licensor, potentially offshore, and will be used to process the database service in accordance with the licensors terms of service and/or privacy policy.

If any student chooses not to agree to the database licensor’s terms of service or privacy policy, the student will not be able to access and use the database. In these circumstances students should contact their lecturer to enquire about alternative arrangements that are available.

SUPPORT FOR STUDENTS
The University offers a number of support services for students. Information on these is available online from http://students.anu.edu.au/studentlife/