

Course Outline

Course Code : RE4804
Course Title : Real Estate Securitisation
Semester : Semester 1, Academic Year 2023/2024
Faculty : Associate Professor Lum Sau Kim
Department : Real Estate
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Overview

Securitisation is an important financial innovation for structuring equity and debt investments that are ultimately collateralised by real estate. As this module focuses on debt instruments, it begins with a primer on bonds to motivate the design of mortgage contracts and mortgage cash flow analytics. The course then presents the rationale for real estate debt securitization in the context of developments in the wider capital markets. Students will be taught the concepts of pooling, stripping and ‘tranching’ as the main product structuring techniques for real estate debt securities. The course also analyses embedded prepayment and default options in real estate debt instruments and approaches to pricing them. Emphasis will be placed on the investment and risk characteristics of secondary real estate debt instruments such as residential and commercial Mortgage-Backed Securities (MBS), Collateralised Mortgage Obligations (CMOs), asset-backed securitisation deals, as well as publicly traded debt paper. If time permits, the course ends with policy implications and possible future developments such as real estate tokenisation.

Learning Outcomes

Students should gain a big picture understanding of real estate debt capital markets, the institutions involved and the securitization products created. They should have an appreciation of the structuring techniques used and develop the proficiency to undertake financial analytics, including cash flow and pricing computations.

Course Prerequisite(s)

RE3701

Course Preclusion(s)

Nil

General Guide & Reading

Main text:

- Fabozzi, F.J. **Bond Markets: Analysis and Strategies. 9th ed.**, Pearson, 2016.

We will also use portions of Geltner, David, Norman G. Miller, Jim Clayton, and Piet Eichholtz. **Commercial Real Estate: Analysis & Investments. 3rd ed.**, Mason, Ohio: Thompson South-Western, 2014.

Other readings will be assigned via CANVAS.

Tentative Schedule & Outline

Week	Date	Topic	Activity
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1	14 – 18 Aug	Introduction to RE-backed Debt Securitization	
2	21 – 25 Aug	Bond Fundamentals & Mathematics	
3	28 Aug – 1 Sep	The Rationale for RE-backed Debt Securitization	
4	4 – 8 Sep	Securitisations in Singapore	
5	11 – 15 Sep	Residential Mortgage-backed Securities I	
6	18 – 22 Sep	Residential Mortgage-backed Securities II	
	23 Sep – 1 Oct	RECESS WEEK	
7	2 – 7 Oct	Embedded Options I	
8	9 – 13 Oct	Embedded Options II	
9	16 – 20 Oct	Collateralised Mortgage Obligations I	
10	23 – 27 Oct	Collateralised Mortgage Obligations II	
11	30 Oct – 3 Nov	Commercial Mortgage-backed Securities	
12	6 – 10 Nov <i>#NUS Wellness Day on 10 Nov</i>	Policy Issues	
13	13 – 17 Nov <i>#Deepavali (Make up) on 13 Nov</i>	Course review (wrap-up)	
	18 – 24 Nov	READING WEEK	
	25 Nov – 9 Dec	EXAMINATION (2 WEEKS)	

Assessment

Assessment Components	Weightage (%)
Group Project	20
Mid Term Test	10
Class Participation	10
Final Exam (E-Exam; Open Book)	60
Total	100

Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources, including AI tools like ChatGPT.

In this regard, representing an AI's output as your own work is plagiarism. Improper uses of AI tools which can be construed as plagiarism include, but are not limited, to the following:

- a) Generating an output and presenting it as your own work
- b) Generating an output, paraphrasing it and then presenting it as your own work
- c) Processing an original source not created by yourself to plagiarize it (*e.g. using an AI paraphrasing tool to disguise someone else's original work*)

The University and School will not condone plagiarism. If you have used an AI tool to complete any assigned work, in whole or in part, you must acknowledge it at the end of the assignment. Your assessor is entitled to assume that everything being presented for assessment is entirely your own work. You have the obligation to declare when it is not. This is a minimum standard. In case of any doubt, you should consult your instructor.

Additional guidance is available at:

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>

About me

Sau Kim is an Academic Director at the NUS Global Relations Office and a faculty member of the NUS Business School. A former ASEAN scholar, she obtained her B.Sc. (Estate Management) honours degree from NUS on a Public Service Commission scholarship. She then pursued her Masters in Land Economy from University of Aberdeen on a British Council scholarship. After joining NUS as a Senior Tutor, Sau Kim pursued a PhD in Business Administration (Finance and Real Estate) from University of California at Berkeley via the NUS Overseas Graduate Scholarship scheme. Winner of several teaching awards in the university, Sau Kim currently teaches real estate finance and securitization. Her research interests cover the areas of housing and land policy, index construction and green finance. She has also consulted for various organizations in and outside Singapore. She sits on the Valuation Review Board of the Ministry of Finance.