11.432J/15.427J: Real Estate Capital Markets
Spring 2013, MIT Center for Real Estate

Prerequisites: Either 11.431/15.426 or 15.401, or Permission of Instructor
Lectures 2:30-4:00 T,H; Recitation 5:30-6:30 T; Room 9-354.
Course web site: http://stellar.mit.edu/S/course/15/sp13/15.427/

Primary Instructor: Professor David Geltner (Office 9-325, Center for Real Estate)
Office hours: Before class Tue,Thur or by appointment.

Teaching Assistants: Matthew DePucchio, Jason Foster

Course description & objectives: This half-semester course introduces and surveys the major public capital market real estate vehicles financing commercial real estate investments: REITs and CMBS. Some basic background is also included on macro-level real estate investment issues such as portfolio theory, equilibrium asset pricing, and indexing real estate prices and returns (including a brief intro to RE index derivatives). This course is primarily designed to provide MSRED students with a basic introduction to the public capital market sources of financial capital for real estate, and how those markets value such capital investments. Students can take 11.432/15.427 without having taken 11.431/15.426 provided they have taken 15.401. Such students may have to do some review of the real estate terminology presented in the earlier course if they are not already familiar with basic real estate finance and investment terminology (see the "Key Terms" listed in the backs especially of Chs.1, 9, 11, 14, 16-18 of the text).

Sloan and other students taking this course as an elective should understand that this is a required course in MIT's MSRED program and, as such, is taught as a "core" subject. That is, a large body of material is covered in a short amount of time, aimed at students who do not necessarily have much finance background. This precludes primary reliance on the case method as is done for example in the Harvard Business School and many Sloan courses. However, we will focus on a few cases generally in greater analytical depth than is done in the HBS. This is a rigorous, analytical course that involves intensive quantitative analysis (particularly using Excel spreadsheets). This course involves considerable workload, and students whose time is tight should consider listener registration.

Administration/Recitations: In addition to twice-weekly lectures, there will generally be weekly recitation classes. These will be used to go over and help students with the homework assignments as well as to review material presented in lecture and the text, but may also be used for guest speakers or to enhance and extend the cases or exercises. The teaching assistants will serve as the graders (with appeals to the primary instructor). Recitation attendance is advisable for most students, but is not mandatory.

No Open Laptops or Smart-phones in Class, Please (unless specified).

However, laptops will be used extensively in the recitations.
Extensive use of the Stellar Discussion Forum utility is an important part of the learning process and will count in the grade.

Grading:

- There will be one in-class exam near the end of the course, totaling 45% of the total course grade.
- There will generally be short written or computational assignments due at the beginning of most classes, focusing on the case or exercise that is being covered and/or related problems. These written assignments (which may be Excel workbooks) will be graded on a check/check-minus/incomplete basis (primarily based on apparent effort) and in total will count for 30% of the course grade. Students may work in groups of up to 4 students each on the daily assignments, and you're encouraged (but not required) to mix up the group compositions from time to time so you don't just work with the same couple people all the time. Also, try to mix students across programs and departments.
- The final 25% of the course grade will reflect in-class participation and contributions in the course Stellar Discussion Forum. At a minimum, each student is expected to post one question to the forum and to respond to one question during each of the three modules in the course (CMBS, Portfolio Theory, REITs). The question and the response do not need to be great – they will not be graded on content – but they do need to be genuine and relevant to the course, though they can be "out of the box" or creative.

Required Text: D.Geltner, N.Miller, J.Clayton, & P.Eichholtz; "Commercial Real Estate Analysis & Investments, 2nd Edition", South-Western College Publishing Co., Cincinnati, 2007 (ISBN# 0-324-30548-6). (This text is also used in 11.431/15.426 & 11.434/15.428/ESD.712.) Available at the Coop or on-line from publisher or Amazon or other sources, and on reserve at Rotch. New 3rd Edition should be available this spring.

11.432J/15.427J: Real Estate Capital Markets, Spring 2013 Class Schedule (check Stellar for updates)

PPT lecture notes will generally be available on Stellar just prior to (and possibly revised after) each lecture.

Class	Topic:	Date	GM Ref (2e):	Recitation
1	Module 1: Commercial Mortgage-Backed Securities GECMC-2005-C1 CMBS Case Introduction to CMBS	2/05 T	Skim Chs 16, 18, 19 Esp 397-403, 443-446, 463-485(skim)	Introduce CMBS case.
2	Module 1: CMBS Case (cont.) Basic Background on Bonds & Commercial Mortgages	2/07 H	Ch 18,19,20 Esp 439-448, 475-479, 494-507	
3	Module 1: CMBS Case (cont.) CMBS Default risk, Rating & Yields Guest speaker: **Tad Philipp** (Moody's head of CMBS research).	2/12 T	Ch 20 (cont.) Esp 502-512	Go over HWs on CMBS case
4	Module 1: CMBS wrap-up	2/14 H	TBA	
5	Module 2: Macro-Level RE Investment Issues Fairweather Pension Plan Case: Portfolio Theory; Optimization Excel Solver technique	2/21 H	Ch 21 Esp pp 524-528	
6	Module 2: Fairweather Case (cont.) CAPM Applied to Real Estate	2/26 T	Ch 22, Esp pp 562-570,572-581 Addl resource: JPM(Pai-Geltner)	Portf optimization Excel Solver technique
7	Module 2: Fairweather Case (cont.) Real Estate Price Indices Also, guest speaker: **Michael Acton**, Head of Research & Global Strategy, AEW Capital	2/28 H	Ch 25 Esp 665-678,684-685	
8	Module 3: Real Estate Investment Trusts (REITs) Lincoln (B) Case Introduction to REITs	3/05 T	Ch 7, 12, 23 Esp 127-134, 276-286, 585-591	Guest speaker: **Mike Walsh**, Boston Properties
9	Module 3: Lincoln Case REIT Valuation based on Cash Flows	3/07 H	Chs 23 Esp 592-604	
10	Module 3: Lincoln Case (cont) Financial metrics, REIT Valuation based on Asset Value	3/12 T	Chs 23 (cont) Esp 593-594, 605-610	Coaching for exam
11	**Exam**	3/14 H		
12	Module 3: REITs (cont.) Guest lecture: **Brad Case** (NAREIT), PhD, SVP Research at NAREIT: "Current issues in the REIT industry"; REIT-based "PureProperty" indices (intro); Grosvenor Case	3/19 T	Read Grosvenor Case Addl Resource: JPM(Horrigan et al) Ch 26, Esp 707-714 Addl resource: JPM(Geltner-Fisher)	Grosvenor Case (cont.), RE derivatives pricing game
13	Extra lecture: CRE price indices: Appraisal-based (NCREIF), Transactions-based (repeat-sales), NAREIT/FTSE "PureProperty" (how it works).	3/21 H		