

**Advanced Real Estate Investment and Analysis**  
**REAL 240/840**  
**Spring 2016; Room TBA**  
*(As of November 9, 2015)*

Professor Joseph Gyourko  
1480 SH-DH  
[gyourko@wharton.upenn.edu](mailto:gyourko@wharton.upenn.edu)  
Office Hours: Monday, 12n-1:30pm  
and by appointment

TA: Rachel Reardon  
[reardonr@wharton.upenn.edu](mailto:reardonr@wharton.upenn.edu)  
TA Office Hours: TBA

This course is designed for majors in Real Estate, both undergraduate and MBA, but also is open to finance-oriented students who wish a deeper analysis of real estate investment analysis issues than is offered in REAL/FNCE 209 or 721. The course presumes knowledge of real estate finance at a level taught in REAL/FNCE 209 and 721.

The class will contain a mixture of lectures, guest speakers, and case discussions. Topics covered will span the real estate equity and debt markets, both public and private. The course focuses on commercial or income-producing real estate. Students interested in a course on housing should see REAL 208/708.

Grading will be based on five assignments that will constitute 90% of your final grade. There are four longer cases and one shorter case. Case #3 constitutes 10% of your grade. The other four cases each constitute 20% of your grade. The remaining 10% of your grade will be determined by class participation. All assignment due dates are listed in the syllabus. Late submissions will not be accepted because all assignments will be discussed in class on the day they are due. In addition, students are expected to come to class prepared to discuss and critique material in lectures and presentations. Hence, the 10% weighting for class participation in grading.

Readings for the course are attached. The readings come from a series of articles provided in a bulk pack. The volume of material is not overly burdensome for a course of this type, but some of the material is difficult. All readings should be done prior to the class for which it is assigned. In general, I have tried to pair academic papers with recent industry reports, with the goal of marrying sound theory and empirical analysis with relevant current events and practices. Class sessions are organized with the same goal in mind. I will deliver a number of lectures outlining what economics and finance tells us about a number of topics. Generally, these will be followed by guest lectures from industry professionals who will focus on a specific application of the principles introduced in the lectures.

Finally, computer and PDA usage are **not** allowed in class. Overhead sets will be posted on our class web site. Please bring them to class, as they will save you much note taking.

*Class #1: January 13 (Note: this is a Wednesday, but Monday classes meet this particular day because of the Martin Luther King holiday the next Monday)*

### Course Overview

Economic Overview and Framework for Evaluating Pricing and Risk in Commercial Real Estate Markets

### Readings:

1. Urban Land Institute, “Emerging Trends in Real Estate 2016”.
2. Other TBA.

*January 18th —no class; Martin Luther King Day observed; University holiday*

*Class #2: January 25*

The Public Equity Markets in Real Estate: Advanced REIT Analysis—REIT Structures and Valuation

### Readings:

1. Peter Linneman, “The Equitization of Real Estate”, *Wharton Real Estate Review*, Fall 2006.
2. Tony M. Edwards, “REITs Modernized”, December 1999.
3. UBS Global Research, “The Weekly REIT Appraisal: What Exactly is “Real Estate”?”, June 26, 2014.
4. Joseph Gyourko & Todd Sinai, “The REIT Vehicle: Its Value Today and in the Future”, *Journal of Real Estate Research*, 1999.
5. Todd Sinai & Joseph Gyourko, “The Asset Price Incidence of Capital Gains Taxes: Evidence from the Taxpayer Relief Act of 1997 and Publicly-Traded Real Estate Firms”, *Journal of Public Economics*, 2004.
6. Lynne Sagalyn, “Conflicts of Interest in the Structure of REITs”, *Real Estate Finance*, 1996.

Case #1 handed out; Refinancing and Tenant Turnover Risk; due in class on February 8, 2016.

*Class #3: February 1*

The Public Equity Markets in Real Estate: Advanced REIT Analysis—REIT Structures and Valuation (cont’d.)

Guest Speaker: TBA on “Investing in Publicly-Traded Real Estate Companies Globally”

(confirmed)

Readings: same as for January 25.

*Class #4: February 8*

The Public Markets in Real Estate: Advanced REIT Analysis—REIT Structures and Valuation (finish any remaining material)

The Private Equity Markets in Real Estate: Institutional Investors, Private Equity Firms, and Hedge Funds

Readings:

1. Peter Linneman and Stan Ross, “Real Estate Private Equity Funds”, *Wharton Real Estate Review*, Spring 2002.
2. Dale Ann Reiss, Deborah Levinson, and Sanford Present, “Opportunistic Investing and Real Estate Private Equity Funds”, *Wharton Real Estate Review*, Spring 2002.
3. Joanne Douvas, “Adjusting Opportunity Fund Fees”, *Wharton Real Estate Review*, Fall 2006.
4. Seth Chertak and Addison Braendel, “Fund Economics, *PREA Quarterly*, Fall 2009, pp. 40-47.
5. Hodes Weill & Associated, “A New, New Paradigm” October 2009.

Case #1 due in class; class with start with case discussion

*Class #5: February 15*

The Private Equity Markets in Real Estate: Institutional Investors, Private Equity Firms, and Hedge Funds (cont’d.; finish any remaining material)

Case #2 handed out: The EOP Case—Understanding Pricing at the Peak; due in class on February 25, 2016.

Guest Speaker: P.J. Yeatman, CenterSquare Investment Management (tentative), “Private Equity Investing After the Global Financial Crisis”

Readings: same as for February 8

*Class #6: February 22*

The Private Equity Markets in Real Estate: Institutional Investors, Private Equity Firms and Hedge Funds (cont'd.)

Guest Speaker: Craig Spencer, Arden Realty, "Real Estate Private Equity Investing: What Are Good Risk-Adjusted Returns with Zero Rates?" (confirmed)

Readings: Same as for February 8

*Class #7: February 29*

Linkages Between the Public and Private Real Estate Markets

Readings:

1. Joseph Gyourko and Donald Keim, "What Does the Stock Market Tell Us About Real Estate Returns?", *Real Estate Economics*, 1992.
2. Roger Ibbotson and Lawrence Siegel, "Real Estate Returns: A Comparison With Other Investments", *Real Estate Economics*, 1984.
3. Joseph Gyourko and Jeremy Siegel, "Long-Term Return Characteristics of Income-Producing Real Estate", *Real Estate Finance*, Spring 1994.
4. Joseph Gyourko, "Real Estate Returns in the Public and Private Markets" A Reexamination Following the Rise of Equity REITs", Zell/Lurie Real Estate Center at Wharton working paper, January 2004.
5. William Gentry, Charles Jones, and Chris Mayer, "Do Stock Prices Really Reflect Fundamental Values" NBER Working Paper 10850, October 2004.

Case #2 due in class; class will begin with the case discussion.

*March 7—no class due to Spring Break*

*Class #8: March 14*

Linkages Between the Public and Private Real Estate Markets (cont'd.)

Real Estate in a Portfolio

Case #3 handed out: Portfolio Analytics: Real Estate in a Diversified Portfolio; due in class on March 21, 2016

Readings:

1. Chapters 7 & 8 in Brealey & Myers, *Principles of Corporate Finance*
2. Chapter 6 in Copeland & Weston, *Financial Theory and Corporate Policy*

*Class #9: March 21*

Case #3 due in class; review and discussion

Commercial Real Estate Debt Markets: Mortgages, CMBS and Structuring

Readings:

1. Howard Esaka and Masumi Goldman, “Commercial Mortgage Defaults: 30 Years of History”, *CMBS World*, 2005.
2. Brian Lancaster, “CMBS 2.0 : Public Offerings and Super Senior “AAA” Bonds”, RBS, August 12, 2011.
3. Brian Lancaster, “Lower 3.0 CMBS Issuance Not Likely to Impact Refinancing Rate”, RBS, October 13, 2011.
4. Other TBA

Guest Speaker: Jim Corl, SigulerGoff, “Investing Across the Public and Private Markets in Commercial Real Estate” (tentative)

*Class #10: March 28*

Case #4 handed out: Risk Evaluation of CMBS, due in class on April 11, 2016.

Commercial Real Estate Debt Markets: Mortgages, CMBS, and Structuring (cont’d.)

Readings: same as for March 21

*Class #11: April 4*

Guest Speaker: Spencer Haber, Chairman and CEO, H2 Capital Partners, “Risks and Opportunities in the Commercial Debt Markets” (confirmed)

*Class #12: April 11*

Case #4 due in class; discussion and review with Maury Apple, H/2 Capital Partners

Case #5 handed out; due in class on April 25, 2016.

Commercial Real Estate Debt Markets (cont'd.)

Readings: same as for March 21

*Class #13: April 18*

Commercial Real Estate Debt Markets (finish any remaining material)

Will take questions on capstone case

Class #14, April 25

Case #5 due in class; review and discussion