

**Advanced Real Estate Investment and Analysis**  
**REAL 240/840**  
**Spring 2011; Room TBA**  
*(Tentative as of November 5, 2010)*

Professor Joseph Gyourko  
1480 SH-DH  
[gyourko@wharton.upenn.edu](mailto:gyourko@wharton.upenn.edu)

Office Hours: Monday 12N-1:30pm  
and by appointment

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, and the prerequisite will be enforced.

The class will contain a mixture of standard lectures, guest speakers, and case discussions. Topics covered will span the real estate equity and debt markets, both public and private. The bulk of the course focuses on commercial or income-producing real estate, but we will spend some time studying the housing markets. 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 is **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.

January 17<sup>th</sup>—no class; Martin Luther King Day observed; University holiday

*Class #1: January 24*

Course Overview

After the Great Recession: Frameworks for Evaluating Pricing and Risk in Housing and Commercial Real Estate Markets

Readings:

1. Joseph Gyourko, “Commercial Real Estate: Is It Really Different from Housing”, *Journal of Portfolio Management*, Vol. 35, no. 5 (2009): 23-37.
2. Karl Case and Robert Shiller, “Is There a Bubble in the Housing Market?”, *Brookings Papers on Economic Activity*, 2003 (2): 299-362.
3. Robert Shiller. *Irrational Exuberance*. 2<sup>nd</sup> edition. Princeton University Press, 2006. Chapter 2.
4. Charles Himmelberg, Christopher Mayer, and Todd Sinai, “Assessing High House Prices: Bubbles, Fundamentals, and Misperceptions”, *Journal of Economic Perspectives*, Vol. 19, no. 4 (2005): 67-92.
5. Christopher Mayer and Todd Sinai, “Bubble Trouble: Not Very Likely”, editorial, *Wall Street Journal*, September 19, 2005.
6. Robert Shiller, “Long-Term Perspectives on the Current Housing Boom”, *The Economists’ Voice*, Vol. 3, no. 4 (2006)
7. Edward Glaeser, Joseph Gyourko, and Albert Saiz, “Housing Supply and Housing Bubbles”, *Journal of Urban Economics*, Vol. 64, no. 3 (2008): 198-217.
8. Edward Glaeser, Joshua Gottlieb, and Joseph Gyourko, “Can Cheap Credit Explain the Housing Boom?”, NBER Working Paper No. 16230, July 2010.

*Class #2: January 31*

After the Great Recession: Frameworks for Evaluating Pricing and Risk in Housing and Commercial Real Estate Markets (cont’d.)

Case #1 handed out: Refinancing and Tenant Turnover Risk; due in class on February 14, 2009

*Class #3: February 7*

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. Joseph Gyourko & Todd Sinai, “The REIT Vehicle: Its Value Today and in the Future”, *Journal of Real Estate Research*, 1999.
4. 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.
5. Lynne Sagalyn, “Conflicts of Interest in the Structure of REITs”, *Real Estate Finance*, 1996.

*Class #4: February 14*

Case #1 due in class; review and discussion

Case #2 handed out: The EOP Case: Trying to Make Sense of Pricing at the Peak, due in class on March, 1, 2009.

Guest Speaker: Ritson Ferguson, Chief Investment Officer, ING Clarion Securities, “Conditions and Developments in International REIT Markets”

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

Readings: same as for February 7, 2010

*Class #5: February 21*

Guest Speaker: Keith Barket, Angelo Gordon, “Private Equity Investing: Will It Work As Before?”

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. Peter Linneman and Deborah Moy, “Revisiting the Return Profiles of Real Estate Investment Vehicles”, *Wharton Real Estate Review*, Fall 2005.
4. Joanne Douvas, “Adjusting Opportunity Fund Fees”, *Wharton Real Estate*

*Review*, Fall 2006.

5. Anton Troianovski, “Lone Star Cuts Fees to See Up New Funds”, *Wall Street Journal* article, November 11, 2009.
6. Seth Chertak and Addison Braendel, “Fund Economics”, *PREA Quarterly*, Fall 2009, pp. 40-47.
7. Hodes Weill & Associated, “A New, New Paradigm” October 2009.

*Class #6: February 28*

Case #2 due in class; review and discussion with Michelle Felman, Vornado Realty Trust.

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.

*March 7—no class due to Spring Break*

*Class #7: 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 23, 2009

Readings:

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

*Class #8: March 21*

Real Estate Debt Markets: Mortgages, CMBS, RMBS and Structuring

Readings:

1. Joseph Gyourko, "Understanding Commercial Real Estate: Just How Different from Housing Is It?", *Journal of Portfolio Management*, 2009.
2. Congressional Oversight Panel, "February Oversight Report: Commercial Real Estate Loans and the Risk to Financial Stability", February 2010.
3. JPMorgan (Alan Todd), "Understanding Commercial Real Estate CDOs", 2006.
4. Howard Esaka and Masumi Goldman, "Commercial Mortgage Defaults: 30 Years of History", *CMBS World*, 2005.
5. Barve, et. al., "The Premature Pricing of Commercial Real Estate Distress", *Wharton Real Estate Review*, Spring 2008.

Case #3 due in class; review and discussion

*Class #9: March 28*

Case #4 handed out: Risk Evaluation of CMBS, due in class on April 11, 2010

Guest Speaker: Spencer Haber, CEO, H2 Capital Partners, "Risks and Opportunities in the Commercial Debt Markets"

Real Estate Debt Markets (cont'd.)

Readings: same as for March 21, 2010

*Class #10: April 4*

Richard Kirkbride, Paul Hastings, "The Nuts and Bolts of Restructuring in Real Estate"

Readings: TBA

*Class #11: April 11*

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

Case #5 handed out: Vornado Case: Evaluating Assets from Public and Private Market Perspectives; due in class on April 27, 2009.

Will finish any remaining lecture material (no new readings)

*Class #12: April 18*

No new material; will answer questions about the capstone Vornado case

*Class #13: April 25*

Case #5 due in class; review and discussion