Advanced Real Estate Investment and Analysis REAL 240/840 Spring 2014; Room TBA (As of December 3, 2013)

Professor Joseph Gyourko 1480 SH-DH gyourko@wharton.upenn.edu Office Hours: Monday 12N-1:30pm and by appointment

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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 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 15 (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. Joseph Gyourko, "Commercial Real Estate: Is It Really Different from Housing", *Journal of Portfolio Management*, Vol. 35, no. 5 (2009): 23-37.
- 2. Urban Land Institute, "Emerging Trends in Real Estate 2014".

Case #1 handed out; Refinancing and Tenant Turnover Risk; due in class on January 27, 2014.

January 20th —no class; Martin Luther King Day observed; University holiday

Class #2: January 27

Economic Overview and Framework for Evaluating Pricing and Risk in Commercial Real Estate Markets (cont'd.; finish any remaining material)

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.

Case #1 due in class; discussion and review of answers

Class #3: February 3

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

Readings: same as for January 27.

Class #4: February 10

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 Presant, "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 #2 handed out: Vornado Realty Trust Acquisition Advisory Assignment, due in class on February 24, 2014.

Guest Speaker: Todd Briddell, CEO and CIO, CenterSquare Investment Advisors (confirmed)

Class #5: February 17

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

Do multiple-tiered promote structures here; have Chris write up something

Guest Speaker: David O'Connor, High Rise Investors, "Private Equity Investing in Real Estate after the Financial Crisis" (confirmed)

Readings: same as for February 10

Class #6: February 24

Case #2 due in class; review and discussion.

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.

Class #7: March 3

Linkages Between the Public and Private Real Estate Markets (cont'd.) Catch up on any remaining material prior to Spring Break Readings: same as for February 24

March 10—no class due to Spring Break

Class #8: March 17

Real Estate in a Portfolio

Case #3 handed out: Portfolio Analytics: Real Estate in a Diversified Portfolio; due in class on March 24, 2014

Readings:

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

Commercial Real Estate Debt Markets: Mortgages, CMBS, and Structuring (time permitting)

Readings:

1. Congressional Oversight Panel, "February Oversight Report: Commercial Real Estate Loans and the Risk to Financial Stability", February 2010.

- 2. Howard Esaka and Masumi Goldman, "Commercial Mortgage Defaults: 30 Years of History", *CMBS World*, 2005.
- 3. Barve, et. al., "The Premature Pricing of Commercial Real Estate Distress", *Wharton Real Estate Review*, Spring 2008.
- 4. Brian Lancaster, "CMBS 2.0: Public Offerings and Super Senior "AAA" Bonds", RBS, August 12, 2011.
- 5. Brian Lancaster, "Lower 3.0 CMBS Issuance Not Likely to Impact Refinancing Rate", RBS, October 13, 2011.
- 6. Other TBA

Class #9: March 24

Case #3 due in class; review and discussion

Real Estate Debt Markets (cont'd.)

Readings: same as for March 17

Class #10: March 31

Case #4 handed out: Risk Evaluation of CMBS, due in class on April 14, 2014.

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

Readings: same as for March 17

Class #11: April 7

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

Housing Markets: Analyzing the Great Boom and Bust to Better Understand the Recovery

Readings:

- 1. Karl Case and Robert Shiller, "Is There a Bubble in the Housing Market?", *Brookings Papers on Economic Activity*, 2003 (2): 299-362.
- 2. Robert Shiller. *Irrational Exuberance*. 2nd edition. Princeton University Press, 2006. Chapter 2.
- 3. 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.
- 4. Christopher Mayer and Todd Sinai, "Bubble Trouble: Not Very Likely", editorial, *Wall Street Journal*, September 19, 2005.
- 5. Edward Glaeser, Joshua Gottlieb, and Joseph Gyourko, "Can Cheap Credit Explain the Housing Boom?", NBER Working Paper No. 16230, July 2010.
- 6. Fernando Ferreira and Joseph Gyourko, "Anatomy of the Beginning of the Housing Boom: U.S. Neighborhoods and Metropolitan Areas, 1993, 2009"
- 7. Karl Case, Robert Shiller, and Anne Thompson, "What Have They Been Thinking? Home Buyer Behavior in Hot and Cold Markets", NBER Working Paper No. 18400, September 2012.

Class #12: April 14

Case #4 due in class; discussion and review

Case #5 handed out: The EOP Case: Understanding Pricing at the Peak; due in class on April 28.

Housing Markets (time permitting)

Class #13: April 21

Housing Markets: Analyzing the Great Boom and Bust to Better Understand the Recovery (cont'd.; finish remaining material)

Class #14, April 28

Case #5 due in class; review and discussion