Advanced Real Estate Investment and Analysis REAL 240/840 Spring 2010; Huntsman Hall Room F50 (Tentative as of January 25, 2010)

Office Hours: Monday 12N-1:30pm

and by appointment

Professor Joseph Gyourko 1480 SH-DH gyourko@wharton.upenn.edu

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

Class #1: January 25

Course Overview

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*. 2nd 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 and Joseph Gyourko, "Arbitrage in Housing Markets", NBER Working Paper w13704, December 2007.
- 8. Edward Glaeser, Joseph Gyourko, and Albert Saiz, "Housing Supply and Housing Bubbles", *Journal of Urban Economics*, Vol. 64, no. 3 (2008): 198-217.
- 9. Edward Glaeser and Joseph Gyourko, "The Case Against Housing Price Supports", *The Economists' Voice*, Vol. 5, no. 6 (2008).

Class #2: February 1

Evaluating Pricing and Risk in Housing and Commercial Real Estate Markets (cont'd.)

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

Case #1 handed out: Refinancing and Tenant Turnover Risk; due in class on February 15, 2009

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 #3: February 8

Guest Speaker: Ross Nussbaum, Equity REIT Group, UBS, "The State of the Equity REIT Market"

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

Readings: same as February 1, 2009

Class #4: February 15

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.

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. 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 #5: February 22

Guest Speaker: Keith Barket, Angelo Gordon, "Making Private Equity Work: Meshing the Money and Operating Partners"

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 #6: March 1

Case #2 due in class;

Finish up public-private linkages

Readings: same as for February 22, 2008

March 8—no class due to Spring Break

Class #7: March 15

Case #2 review and discussion with Michelle Felman, Executive Vice President, Vornado Realty Group

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

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

Readings:

1. Readings will be updated based on market conditions

Class #8: March 22

Case #3 due in class; review and discussion

Real Estate Debt Markets (cont'd.)

Readings: same as for March 15, 2009

Class #9: March 29

Case #4 handed out: Risk Evaluation of CMBS, due in class on April 13, 2009

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 15, 2009

Class #10: April 5

Bruce Gamble, Managing Director, Alvarez and Marsal Real Estate Advisory Services, "The Nuts and Bolts of Restructuring in Real Estate"

Readings: TBA

Class #11: April 12

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.

Class #12: April 19

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

Class #13: April 26

Case #5 due in class; review and discussion