

**Housing Markets (REAL/BEPP 2080/7080)**  
JMHH F70, TT 10:15-11:45am; 12N-1:30pm  
Tentative as of December 21, 2022

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This course is designed for students interested in the economics and operations of housing markets. It is primarily a U.S.-focused course, but does include material devoted to Chinese housing markets for comparative purposes. The class is divided into five sections: (1) economic analysis of housing market fundamentals (supply and demand); (2) a policy analysis section on housing affordability issues in the U.S.; (3) operations of homebuilders and rental landlords, as well as the single family rental sector; this section includes a series of guest lecturers from industry executives; (4) the nature of housing cycles; and (5) a comparative analysis of Chinese housing markets.

This course presumes knowledge of intermediate microeconomics. For Wharton students, this means you must have passed BEPP 2500 (undergrads) or MGEC 6110 (MBAs). Non-Wharton students should have taken the equivalent course in the College. The class is primarily lecture based, although we will have one flipped class, as well as a number of guest lecturers from industry. There are two in-class midterms and a term paper. The course grade will be determined as follows:

Midterm #1: 30%  
Midterm #2: 30%  
Term Paper: 30%  
Class Participation: 10%

The two midterms will be taken in class, with the second one not being cumulative in nature. Both dates are listed below on the syllabus. The term paper is to be done in groups of two. You do not need to worry about that assignment until after Spring Break, when I will discuss it in detail in class. Essentially, you and a partner will have six weeks to work on this assignment. Class participation is the final component of your course grade. It will be based on your attendance and on your contributions to discussion in class.

All assignments are due on the day listed in the syllabus, and exams must be taken at the assigned time and date. Late assignments will not be accepted. The readings come from a series of articles and book chapters available in a bulk pack for purchase from Study.Net. A handful of the readings are technical in nature, and these are explicitly noted in the syllabus. You should read these articles for general understanding, and not get bogged down in modeling details or complex estimation strategies. We will go over this material in more detail in class.

Because of the change in semester length for MBAs, undergraduates will have additional material provided for them. Details on that material will be announced later.

Overhead sets will be posted on our class web site. I encourage you to download them and bring them to class, as they will save you much note taking. Electronic devices other than flat Ipad-type devices are not permitted in class (i.e., no phones and no laptops).

We will follow Penn guidelines regarding masking and other health directives related to COVID. Presently, masking is not required, so I will not require them in my sections. If Penn changes its directives in this regard, so will I. Of course, anyone is welcome to wear a mask at any time.

Eating in classrooms is no longer prohibited, but this should be kept to a minimum, as it tends to be disruptive. For those in the 12n-1:30pm section especially, you should not plan on eating lunch. It is just too loud and disruptive to the class.

## I. Understanding Homeownership: The Rent-Own Decision, Demand and Supply

*Class #1: Tuesday, January 17*

Course Overview

Housing Market Data: Price, Quantities, Cycles and COVID

Readings: none, but bring Overhead Set #1 from your bulk pack to class

*Class #2: Thursday, January 19*

The Rent-Own Decision: The Costs and Benefits of Homeownership Versus Renting

Readings: Himmelberg, Mayer & Sinai (2005); Poterba (1984)-technical

*Class #3: Tuesday, January 24*

The 2017 Tax Act and User Cost; Subsidy and Distributional Issues

Readings: Sinai & Gyourko (2003)

*Class #4: Thursday, January 26*

Financing Homeownership: Mortgage Products—The Basics

Readings: Brueggeman & Fisher (2014, Chapters 3,4,5)

**Note: Flipped Class; View Video and Prepare Question Answers from Slide Deck for Regular Class**

*Class #5: Tuesday, January 31*

The Demand Side of Housing Markets: Interest Rates and the Tax Code

Readings: Glaeser, Gottlieb & Gyourko (2013; Sections 7.1, 7.2.1, 7.2.3, 7.3); Gruber, et. al. (2021); Glaeser & Shapiro (2003)

*Class #6: Thursday, February 2*

The Demand Side of Housing Markets: Demographics, Student Debt and Covid

Readings: Bleemer, et. al. (2017); State of the Nation's Housing (2022)

*Class #7: Tuesday, February 7*

Just How Risky Is Owning vs. Renting?

Readings: Sinai and Souleles (2005)-technical

*Class #8: Thursday, February 9*

The Supply Side of Housing Markets: What Does It Cost to Construct Housing?

Readings: Saiz and Gyourko (2006)

*Class #9: Tuesday, February 14*

The Supply Side of Housing Markets: The Role of Regulation

Readings: Glaeser & Gyourko (2018); Glaeser, Gyourko and Saks (2005); Gyourko, Hartley and Krimmel (2021a); Gyourko & Krimmel (2021b)

*Class #10: Thursday, February 16*

The Supply Side of Housing Markets: The Role of Regulation (cont'd.)

Readings: Same as for February 15

*Class #11: Tuesday, February 21*

Housing Affordability for the Poor and Public Policy

Readings: Glaeser & Gyourko (2008, Ch. 1, 2, 4, 5); Sinai & Waldfoegel (2005); Cummings & DiPasquale (1999); Diamond, McQuade & Qian (2019); Housing New York—undated summary of Mandatory Inclusionary Zoning Program; NYC Planning (September 2015); Furman Center (March 2015-Research Brief); Furman Center (March 26, 2015—White Paper)

*Class #12: Thursday, February 23*

**Midterm #1—in class**

➔No class for the weeks of February 27-March 3 and March 6-March 10, (MBA Core Exams & Opportunity Week) and March 4-12 (Spring Break). Undergraduates will receive extra material for review. This will be in the form of taped video sessions and handouts.

## **II. The Location of Housing and Its Price Across Markets: Where Do We Live and Why?**

*Class #13: Tuesday, March 14*

Midterm #1 Handed Back

Term Paper Discussion and Group Formation

Housing Affordability for the Poor and Public Policy (cont'd., time permitting)

Readings: Same as for February 21

*Class #14: Thursday, March 16*

Why Don't We All Live in San Francisco? Spatial Arbitrage

Readings: Roback (1982)—background; technical; Gyourko & Tracy (1991)--technical

*Class #15: Tuesday, March 21*

Why Does Anyone Still Live in Detroit (or Dayton)? What Happens to Declining Markets?

And

The Growing Price Dispersion Across Markets: The Rise of 'Superstar' Cities

Readings: Glaeser & Gyourko (2005)-technical; Gyourko, Mayer & Sinai (2013--technical

## **III. Operating Businesses in Residential: Single Family, Multifamily and Single-Family Rental: Risks and Opportunities**

*Class #16: Thursday, March 23*

Guest Speaker #1: Martin Connor, CFO, Toll Brothers, "Homebuilders Across the Business Cycle"

Evening Class, 6-7pm; room TBA.

*Class #17: Tuesday, March 28*

Guest Speaker #2: Oliva John, CEO, Osso Capital, “Investing and Operations in the Multifamily Sector”  
Evening Class, 6-7pm; room TBA.

*Class #18: Thursday, March 30*

Guest Speaker #3: Andrew Jonas, Managing Director and Co-Head of Real Estate, Goldman Sachs & Company, “The Economics of the Single-Family Rental Business: Covid and the Longer-Term”  
Evening Class, 6-7pm; room TBA.

*Class #19: Tuesday, April 4*

Guest Speaker #4: Neil Rubler, President and CEO, Vessel Technologies, “Making Affordable Housing Work for the Middle and Lower-Middle Classes”  
Evening Class, 6-7pm; room TBA.

#### **IV. Housing Cycles: Why Are Prices So Volatile?**

*Class #20: Thursday, April 6*

Housing Market Cycles: Data and History

Case & Shiller (1994); Glaeser (2014)

*Class #21: Tuesday, April 11*

Why Was the Last Cycle So Hard to Anticipate?

Readings: Himmelberg, Mayer & Sinai (2005), Case & Shiller (2003); Shiller (2005, Chapter 2, 2<sup>nd</sup> Edition)

#### **V. A Brief International Comparison: China’s Housing Markets**

*Class #22: Thursday, April 13*

Overview of the Chinese Housing Market:

Readings: Deng, Gyourko and Wu (2012, 2016)

*Class #23: Tuesday, April 18*

Evaluating the Risk of China's Housing Markets

Readings: same as for April 13

*Class #24: Thursday, April 20*

**Midterm #2--in class**