# **Housing Markets**

#### **REAL/BEPP 208/708**

Tentative as of November 6, 2019

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Office Hours: Monday, 1:30-3:00pm

and by appointment

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 a meaningful amount of material devoted to Chinese housing markets for comparative purposes. The class is divided into four sections: (1) economic analysis of housing market fundamentals (supply and demand); this includes an analysis of housing affordability issues and policies in the U.S.; (2) operations of homebuilders and rental landlords, as well as the new single family rental sector; this section will include a series of guest lecturers from industry executives to help you better understand the operations of housing sector firms. (3) the nature of housing cycles; (4) a comparative analysis of Chinese housing markets.

This course presumes knowledge of intermediate economics, as we will apply that knowledge throughout the semester. For Wharton students, this means you must have passed BEPP 250 (undergrads) or MGEC 611 (MBAs). Non-Wharton students should have taken the equivalent course in the College. The class is primarily lecture based, although we will have a few guest lecturers. There are two in-class midterms and a term paper. Paper topics will be discussed in class and must be approved by the professor. The course grade will be determined as follows:

Midterm #1: 25% Midterm #2: 30% Term Paper: 35%

Class Participation: 10%

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 term paper is due on the last day of regular classes—Wednesday, April 29, 2020. The readings come from a series of articles provided in the bulk pack. A handful of them 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.

Finally, laptop 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.

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

Class #1: Thursday, January 16

Course Overview

Housing Market Data: Price, Quantities, and Cycles (see bulk pack slides)

Class #2: Tuesday, January 21

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

Readings: Poterba (1984)-technical; Sinai & Gyourko (2003); Himmelberg, Mayer & Sinai (2005)

Class #3: Thursday, January 23

User Cost, Subsidy and Distributional Issues

Readings: same as for January 21

Class #4: Tuesday, January 28

Financing Homeownership: Mortgage Products—The Basics

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

Class #5: Thursday, January 30

The Demand Side of Housing Markets: The Roles of Demographics, Interest Rates, Income and the Tax Code

Readings: State of the Nation's Housing (2015, Chapters 3 and 4); Mankiw & Weil (1989); Glaeser, Gottlieb & Gyourko (2013; Sections 7.1, 7.2.1, 7.2.3, 7.3)

Class #6: Tuesday, February 4

Just How Risky Is Owning?

Readings: Sinai and Souleles (2005)-technical; Sinai (2011)

#### Class #7: Thursday, February 6

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

Readings: Saiz and Gyourko (2006); Davis & Palumbo (2008); State of the Nation's Housing (2015, Chapter 2)

#### Class #8: Tuesday, February 11

The Supply Side of Housing Markets: The Role of Regulation

Readings: Glaeser, Gyourko and Saks (2005); Quigley & Raphael (2005); Quigley and Rosenthal (2005); Gyourko, Saiz and Summers (2008); Gyourko, Hartley and Krimmel (2019); Katz & Rosen (1987)

#### Class #9: Thursday, February 13

Housing Affordability and Public Policy: Does Anything Work?

Readings: Glaeser & Gyourko (2008, Ch. 1, 2, 4, 5); Sinai & Waldfogel (2005); Ambrose & Warga (2002); Cummings & DiPasquale (1999); Baum-Snow and Marion (2008); 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 #10: Tuesday, February 18

Housing Affordability and Public Policy: Does Anything Work?

Measuring House Prices to Control for Quality

Readings: Same as for February 13

#### Class #11: Thursday, February 20

Measuring House Prices to Control for Quality

Readings: Bailey, Muth & Nourse (1963)-technical; Case & Shiller (1987); Case & Shiller (1989)-technical

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

Class #12: Tuesday, February 25

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

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

Class #13: Thursday, February 27

Why Does Anyone Still Live in Detroit? What Happens to Declining Markets?

Readings: Glaeser & Gyourko (2005)-technical

Class #14: Tuesday, March 3

Midterm #1 Review; Catch-up on any remaining material

No new readings

Class #15: Thursday, March 5

Midterm Exam #1; in class

March 10 and March 12—no class; Spring Break

Class #16: Tuesday, March 17

Return and Review Midterm #1; Term Paper project review; catch up on Declining Markets

Class #17: Thursday, March 19

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

Readings: Gyourko, Mayer and Sinai (2013)—technical

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

Class #18: Tuesday, March 24

Guest Lecture: TBA "The Economic Drivers of the Multifamily Rental Business in High Cost Coastal Markets"

Class #19: Thursday, March 26

Guest Lecture: TBA, "The 'Affordable' Multifamily Business Outside the Gateway Coastal Markets"

Class #20: Tuesday, March 31

Guest Speaker: TBA: "The Economics of Homebuilders Across the Cycle"

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

Class #21: Thursday, April 2

Housing Market Cycles: Data and History

Case & Shiller (1994); Glaeser (2014)

Class #22: Tuesday, April 7

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)

Class #23: Thursday, April 9

Guest Speaker: TBA, "The Economics of the Single-Family Rental Business: Cyclical or Long-Term Business"

Class #24: Tuesday, April 14

Why Was the Most Recent Cycle So Hard to Anticipate?

Readings: same as for April 7

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

Class #25: Thursday, April 16

Overview of the Chinese Housing Market:

Readings: Deng, Gyourko and Wu (2011, 2016)

Class #26: Tuesday, April 21

Evaluating the Risk of China's Housing Markets

Readings: same as for April 16

Class #27: Thursday, April 23

What Can We Learn from China's Other Land Markets (Industrial and Commercial)?

2<sup>nd</sup> Midterm Exam Review

Readings: same as for April 16

Class #28: Tuesday, April 28

Midterm #2 in class

Term Paper Due at the end of the Reading Period, May 3, 2020