

Graduate Urban and Real Estate Economics, 2023 Summer
Online Course (Tencent Meeting)

[Syllabus](#); [Hw1](#)

Course Content.

Topics: We start by considering land use and residential location in a single city and the role of transportation costs. Next, we study an individual's location choice across cities and neighborhood choice within cities. We then examine reasons for the existence of cities, focusing on the geographic concentration of industry and why concentration can lead to higher productivity. We follow this with measurement of the geographic concentration of industries and explore empirical methods for working with spatial data. Next, we consider ideas from Trade in explaining the spatial distribution of economic activity (New Economic Geography) and read recent empirical papers based on these ideas. We then study additional topics on location choice, including the role of consumer amenities, place-based policies, and identification strategies. We finish the course with an introduction to housing economics and the Chinese housing market. Throughout the course we will look at empirical evidence for the theories we read, alternating theory classes with empirical classes and often focusing on evidence from China.

Focus on China: China is undergoing a period of massive urbanization and is the country with the largest number of cities with a population above 1 million. Many of the classical topics in urban economics, such as the tradeoff between agglomeration economies and congestion externalities, are particularly important in China. Further, specific characteristics of Chinese institutions and policies, such as the hukou (户口) system, make some aspects of its urban development differ from those of North America and Europe. This makes China a great subject for urban economic research.

This course applies the latest economic thinking and research to the task of analyzing real estate market fundamentals. The first 6 lectures are essentially microeconomic in nature: studying the operation of the perfectly product-differentiated urban land market and the location of different uses within cities. The second half of the course is more macroeconomic: examining the aggregate demand for housing as well as industrial, office, retail commercial space and the innate volatility of stock-flow markets with imperfect information and collateral constraints.

Course Operation: The course involves 25 live lectures. The lecture PPT's that are posted on Stellar Sunday evenings will be those presented that week in class. The lecture content represents a significant update and expansion of the text DiPasquale and Wheaton, Economics and Real Estate Markets (Prentice Hall, 1996). A full PDF of the text is on the stellar site as is a set of journal articles (listed below). All articles are required readings and can also be downloaded.

Course Objectives: An important overall objective of this course is to help prepare students for research and therefore there will be an emphasis on developing each student's own

research idea (see evaluation). After completing this course the student will have an understanding of how economic theory guides research on cities and how current researchers approach empirical urban economics questions, including some of the specific issues and methods of working with spatial data.

Course Prerequisites: This course will cover both applied theory and empirical applications and should be suitable for any PhD students and advanced masters students. The urban economics theory models we cover are straightforward and simpler than material discussed in a first year microeconomic theory PhD class. The empirical papers we discuss will use a range of techniques to deal with endogeneity, such as instrumental variables or regression discontinuity design. Having familiarity with some of these techniques could be helpful, but is not a requirement, and I will also quickly review these methods in class.

Recommended Textbooks:

- Brueckner, J. K. (2011). *Lectures on urban economics*. MIT press.
- DiPasquale, D., & Wheaton, W. C. (1996). *Urban economics and real estate markets*. Prentice Hall.
- Glaeser, E. L. (2008). *Cities, agglomeration, and spatial equilibrium*. OUP Oxford.

Lecture 1: Introduction, Urbanization in China ([lecture notes](#))

- **Required:** Chauvin, Juan Pablo, Glaeser, Edward, Ma, Yueran, and Tobio, Kristina, "[What is Different about Urbanization in Rich and Poor Countries? Cities in Brazil, China, India, and the United States.](#)" *Journal of Urban Economics*, 2016
- *Optional:* Dingel, Jonathan I., Miscio, Antonio, Davis, Donald R., "[Cities, Lights, and Skills in Developing Economies](#)," *Journal of Urban Economics*, 2020
- *Optional:* J. Vernon Henderson, "[Urbanization in China: Policy Issues and Options](#)," Recommendation to China Economic Research and Advisory Program, 2009
 - [Gibrat's Law to Zipf simulation video](#)

Lecture 2: Monocentric City Model ([lecture notes](#))

- **Required:** Brueckner, Jan K., "[The Structure of Urban Equilibria: A Unified Treatment of the Muth-Mills Model](#)", Ch. 20, *Handbook of Regional Science and Urban Economics*, Vol 2, 1987
- *Optional:* Duranton, Gilles and Puga, Diego, "[Urban Land Use](#)", *Handbook of Regional Science and Urban Economics*, Vol 5, 2015.
 - The first two sections (up to p14) cover the basic model from our class.
- *Optional:* Fujita, Masahisa, "Urban Economic Theory: Land Use and City Size," *Cambridge University Press*, 1989.
 - Chapters 2 and 3
- [R Notebook with simple simulation](#), [code \(.Rmd file\)](#)

Lecture 3: Monocentric City Model and Transportation Modes ([lecture notes](#))

- **Required:** Jerch, Rhiannon, Barwick, Panle Jia, Li, Shanjun, and Wu, Jing. "[Road Rationing Policies and Housing Markets](#)," Working Paper, 2021

- *Optional:* LeRoy, Stephen F. and Sonstelie, Jon, "[Paradise Lost and Regained: Transportation Innovation, Income, and Residential Location](#)", *Journal of Urban Economics*, 1983

Lecture 4: Transportation and Decentralization in China ([lecture notes](#))

- **Required:** Baum-Snow, Brandt, Henderson, Turner, Zhang. "[Roads, Railroads and Decentralization of Chinese Cities](#)," *Review of Economics and Statistics*, 2017

Lecture 5: Equilibrium across Cities ([lecture notes](#))

- **Required:** Roback, Jennifer. "[Wages, Rents, and the Quality of Life](#)," *Journal of Political Economy*, 1982
- Glaeser, E. L., & Gyourko, J. (2005). Urban decline and durable housing. *Journal of political economy*, 113(2), 345-375.
- *Optional:* Moretti, Enrico, "[Local Labor Markets](#)," Chapter 14, *Handbook of Labor Economics*, Volume 4b, 2010.
- *Optional:* Glaeser, Edward, and Gottlieb, Joshua, "[The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States](#)," *Journal of Economic Literature*, 2009

Lecture 6: Place-based Policies ([lecture notes](#))

- **Required:** Kline, Patrick, and Moretti, Enrico, "[People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs](#)," *Annual Review of Economics*, 2014
- *Optional:* Neumark, David and Simpson, Helen, "[Place-Based Policies](#)," *Handbook of Regional and Urban Economics*, 2015

Lecture 7: Sorting within Cities ([lecture notes](#))

- **Required:** Bayer, Patrick, Ferreira, Fernando, and McMillan, Robert, "[A Unified Framework for Measuring Preference for Schools and Neighborhoods](#)," *Journal of Political Economy*, 2007
- *Optional:* Bayer, Patrick, McMillan, Robert, and Rueben, Kim "[An Equilibrium Model of Sorting in an Urban Housing Market](#)," *NBER WP* 10865

Lecture 8: Microfoundations of Agglomeration ([lecture notes](#))

- **Required:** Duranton, Gilles and Puga, Diego, "[The Micro-Foundations of Urban Agglomeration Economies](#)," *Handbook of Regional and Urban Economics*, Vol 4, 2004
- *Optional:* Au, Chun-Chung and Henderson, J. Vernon, "[Are Chinese Cities Too Small?](#)", *Review of Economic Studies*, 2006
- *Optional:* Au, Chun-Chung and Henderson, J. Vernon, "How migration restrictions limit agglomeration and productivity in China", *Journal of Development Economics*, 2006

Lecture 9: Agglomeration and Firm Concentration ([lecture notes](#))

- **Required:** Ellison, Glenn and Glaeser, Edward, "[Geographic Concentration in U.S. Manufacturing Industries: A Dartboard Approach](#)," *Journal of Political Economy*, 1997

- *Optional:* Guimaraes, Paulo, Figueiredo, Octavio, and Woodward, Douglas, "[Measuring the Localization of Economic Activity: A Parametric Approach](#)," *Journal of Regional Science*, 2007

Lecture 10: Neighborhoods and Neighborhood Effects ([brief lecture notes](#))

- **Required:** Topa, Giorgio and Zenou, Yves, "[Neighborhood and Network Effects](#)," *Handbook of Regional and Urban Economics*, 2015
- *Recommended:* Chetty, Raj and Hendren, Nathaniel, "[The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects](#)," *Quarterly Journal of Economics*, 2018
- *Optional:* Dai, Tianran and Schiff, Nathan, "[The Structure and Growth of Ethnic Neighborhoods](#)," WP 2023

Lecture 11: Spatial Methods

- **Required:** Duranton, G., Henderson, V., & Strange, W. "Spatial methods," (Eds.). (2015). *Handbook of regional and urban economics*. Elsevier.
- [In-class exercise sheet](#)
- [Data for in-class exercise](#)

Lectures 12: The New Economic Geography ([lecture notes](#))

- **Required:** Neary, J. Peter, "[Of Hype and Hyperbolas: Introducing the New Economic Geography](#)," *Journal of Economic Literature*, 2001
- R-Notebook to simulate Krugman AER 1980 ([html](#), [Rmd](#))

Lecture 13: New Economic Geography Models and an Application to China ([lecture notes](#))

- **Required:** Faber, Ben. "[Trade Integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System](#)," *Review of Economic Studies*, 2014.
■ [Appendix](#) to Faber 2014
- *Optional:* Baum-Snow, Nathaniel, Henderson, J. Vernon, Turner, Matthew, Zhang, Qinghua, and Brandt, Loren, "[Does Investment in National Highways Help or Hurt Hinterland City Growth?](#)" *Journal of Urban Economics*, 2020.

Lecture 14: Intro Housing Economics and Chinese Housing Market ([lecture notes](#))

- **Required:** Glaeser, Edward, Huang, Wei, Ma, Yueran, and Shleifer, Andrei, "[A Real Estate Boom with Chinese Characteristics](#)," *Journal of Economic Perspectives*, 2017.
- Liu, C., & Xiong, W. (2018). China's Real Estate Market. NBER Working Paper, (w25297).
- Rogoff, K., & Yang, Y. (2021). Has China's housing production peaked?. *China & World Economy*, 29(1), 1-31.

Lecture 15: The Asset Market Approach and Bubbles

- **Required:** Capozza, D. R., & Helsley, R. W. (1989). The fundamentals of land prices and urban growth. *Journal of Urban Economics*, 26(3), 295-306.
- **Required:** Poterba, J. M. (1984). Tax subsidies to owner-occupied housing: an asset-market approach. *The quarterly journal of economics*, 99(4), 729-752.

- Glaeser, E. L., Gyourko, J., & Saiz, A. (2008). Housing supply and housing bubbles. *Journal of urban Economics*, 64(2), 198-217.
- Case, K. E., & Shiller, R. J. (1989). The Efficiency of the Market for Single-Family Homes. *The American Economic Review*, 125-137.
- Chen, K., & Wen, Y. (2017). The great housing boom of China. *American Economic Journal: Macroeconomics*, 9(2), 73-114.

Lecture 16 Land Use and Supply Constraints

- **Required:** Gyourko, J., & Molloy, R. (2015). Regulation and housing supply. In *Handbook of regional and urban economics* (Vol. 5, pp. 1289-1337). Elsevier.
- Saiz, A. (2010). The geographic determinants of housing supply. *The Quarterly Journal of Economics*, 125(3), 1253-1296.
- Hilber, C. A., & Vermeulen, W. (2016). The impact of supply constraints on house prices in England. *The Economic Journal*, 126(591), 358-405.

Lecture 17: Rent Control and Distorted Markets

- Glaeser, E. L., & Luttmer, E. F. P. (2003). The misallocation of housing under rent control. *American Economic Review*, 93(4), 1027-1046.
- Bulow, J., & Klemperer, P. (2012). Regulated prices, rent seeking, and consumer surplus. *Journal of Political Economy*, 120(1), 160-186.
- Wang, S. Y. (2011). State misallocation and housing prices: theory and evidence from China. *American Economic Review*, 101(5), 2081-2107.

Lecture 18: Shift-share Instruments ([lecture notes](#), [simple exercise](#), [Stata code](#))

- **Required:** Goldsmith-Pinkham, Paul, and Sorkin, Isaac, and Swift, Henry, "[Bartik Instruments: What, When, Why, and How](#)," *American Economic Review*, 2020.
- **Recommended:** Borusyak, Kirill, Hull, Peter, and Jaravel, Xavier, "[Quasi-Experimental Shift-Share Research Designs](#)," *Review of Economic Studies*, 2022.