

ECON748 Real Estate Economics
Singapore Management University, School of Economics – AY2022-2023, Term 1

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Course Description

This course provides an overview of real estate markets as well as public policies that affect those markets. We will discuss factors driving housing demand and supply, house price movements (captured by house price indices), and real estate cycles (including bubbles). We will also discuss different types of mortgage instruments used to finance investments in real estate and their impact on market outcomes. We unfold some of those topics in the context of the Great Recession in the U.S. and discuss potential implications for the global market. We will also touch on the impact of COVID-19 on the real estate market.

Course Website

It is important that you access the course website on a regular basis. Important course-related information will be posted there. The URL for the course homepage is as follows: <https://elearn.smu.edu.sg/>

Course Grading

Final assessment will be based on your performance on the Presentation, the Referee Report, and the Research Proposal.

Your final course numeric average will be calculated based on the following weighting scheme.

	Percentage
Presentation - Survey	40%
Presentation - Paper	40%
Referee Report	20%

Academic Integrity

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences.

All work (whether oral or written) submitted for purposes of assessment must be the student's own work. Penalties for violation of the policy range from zero marks for the component assessment to expulsion, depending on the nature of the offense.

When in doubt, students should consult the instructors of the course. Details on the SMU Code of Academic Integrity may be accessed at <http://www.smuscd.org/resources.html>.

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Accessibility

SMU strives to make learning experiences accessible for all. If students anticipate or experience physical or academic barriers due to disability, please let the instructor know immediately. Students are also welcome to contact the university's disability services team if they have questions or concerns about academic provisions: included@smu.edu.sg.

Please be aware that the accessible tables in the seminar room should remain available for students who require them.

TENTATIVE COURSE READING LIST

Topic 1: Housing Demand

- Alonso, W. (1964). Location and land use: Toward a general theory of land rent. Cambridge, Mass: Harvard University Press.
- Mills, E. S. (1967). An aggregative model of resource allocation in a metropolitan area. *The American Economic Review*, 57(2), 197-210.
- Muth, R. F. (1969). Cities and housing: The spatial pattern of urban residential land use. Chicago: University of Chicago Press.
- Rosen, S. (1979). Wage-based indexes of urban quality of life. *Current Issues in Urban Economics*, 74-104.
- Roback, J. (1982). Wages, rents, and the quality of life. *Journal of Political Economy*, 90(6), 1257-1278.
- Poterba, James (1984): "Tax Subsidies to Owner-Occupied Housing: An Asset Market Approach", *Quarterly Journal of Economics*, v. 99 (4), pp. 729-52.
- Henderson, J. V., and Y. M. Ioannides. (1983): "A Model of Housing Tenure Choice," *The American Economic Review*, 73, 98–113.
- Sinai, T., & Souleles, N. S. (2005). Owner-occupied housing as a hedge against rent risk. *Quarterly Journal of Economics*, 120(2), 763–789.
- Davidoff, T. (2006). Labor income, housing prices, and homeownership. *Journal of Urban Economics*, 59(2), 209–235.
- Fuster, A., & Zafar, B. (2016). To buy or not to buy: Consumer constraints in the housing market. *American Economic Review* (Vol. 106).
- Rosenthal, S. S. (2018). Owned Now or Rented Later? Housing Stock Transitions and Market Dynamics
- Rosen, S. (1974). Hedonic prices and implicit markets: product differentiation in pure competition. *Journal of Political Economy*, 82(1), 34-55.
- Bishop, K. C., & Timmins, C. (2019). Estimating the marginal willingness to pay function without instrumental variables. *Journal of Urban Economics*, 109 (March 2017), 66–83.
- Black, S. E. (1999). Do better schools matter? Parental valuation of elementary education. *The Quarterly Journal of Economics*, 114(2), 577-599
- Davis, L. W. (2004). The effect of health risk on housing values: Evidence from a cancer cluster. *American Economic Review*, 94(5), 1693-1704.

Wong, M. (2013). Estimating ethnic preferences using ethnic housing quotas in Singapore. *Review of Economic Studies*, 80(3), 1178-1214

Currie, J., Davis, L., Greenstone, M., & Walker, R. (2015). Environmental health risks and housing values: evidence from 1,600 toxic plant openings and closings. *American Economic Review*, 105(2), 678-709.

Topic 2: Housing Supply

Ahlfeldt (building technology)

Glaeser, E. L., & Gyourko, J. (2005). Urban decline and durable housing. *Journal of political economy*, 113(2), 345-375

Saiz, A. (2010). The geographic determinants of housing supply. *The Quarterly Journal of Economics*, 125(3), 1253-1296.

Hsieh, C.-T., & Moretti, E. (2019). Housing Constraints and Spatial Misallocation. *American Economic Journal: Macroeconomics*, 11(2), 1–39.

Turner, M. A., Haughwout, A., & Van Der Klaauw, W. (2014). Land use regulation and welfare. *Econometrica*, 82(4), 1341-1403.

Epple, D., Gordon, B., & Sieg, H. (2010). A new approach to estimating the production function for housing. *American Economic Review*, 100(3), 905-24.

Combes, P. P., Duranton, G., & Gobillon, L. (2017). The production function for housing: Evidence from France.

Ahlfeldt, G. M., & McMillen, D. P. (2018). Tall buildings and land values: Height and construction cost elasticities in Chicago, 1870-2010. *Review of Economics and Statistics*, 100(5), 861–875.

Ahlfeldt, G. M., & Barr, J. (2022). The economics of skyscrapers: A synthesis. *Journal of Urban Economics*, 129(December 2021), 103419. <https://doi.org/10.1016/j.jue.2021.103419>

Rosenthal, S. S. (2014). Are private markets and filtering a viable source of low-income housing? Estimates from a "repeat income" model. *American Economic Review*, 104(2), 687-706.

Titman, S. (1985). Urban land prices under uncertainty. *American Economic Review*, 75(3), 505-514.

Cunningham, C. R. (2007). Growth controls, real options, and land development. *The Review of Economics and Statistics*, 89(2), 343-358.

Oh, H., & Yoon, C. (2019). Time to build and the real-options channel of residential investment. *Journal of Financial Economics*.

Topic 3: Mortgage

Keys, B. J., Mukherjee, T., Seru, A., & Vig, V. (2010). Did securitization lead to lax screening? Evidence from subprime loans. *The Quarterly Journal of Economics*, 125(1), 307-362.

Mian, A., & Sufi, A. (2009). The consequences of mortgage credit expansion: Evidence from the US mortgage default crisis. *The Quarterly Journal of Economics*, 124(4), 1449-1496

Bhutta, N., & Keys, B. J. (2016). Interest Rates and Equity Extraction During the Housing Boom. *American Economic Review*, 106(7), 1742–1774.

Di Maggio, M., Kermani, A., Keys, B. J., Piskorski, T., Ramcharan, R., Seru, A., & Yao, V. (2017). Interest rate pass-through: Mortgage rates, household consumption, and voluntary deleveraging. *American Economic Review*, 107(11), 3550-88.

Agarwal, S., Chomsisengphet, S., Mahoney, N., & Stroebel, J. (2018). Do Banks Pass Through Credit Expansions to Consumers Who Want to Borrow? *Quarterly Journal of Economics*, 133(1), 129–190.

Di Maggio, M., Kermani, A., & Palmer, C. J. (2019). How Quantitative Easing Works: Evidence on the Refinancing Channel. *The Review of Economic Studies*.

Chu, C. S., & Rysman, M. (2019). Competition and Strategic Incentives in the Market for Credit Ratings: Empirics of the Financial Crisis of 2007. *American Economic Review*, 109(10), 3514–3555.

Beraja, M., Fuster, A., Hurst, E., & Vavra, J. (2019). Regional Heterogeneity and the Refinancing Channel of Monetary Policy. *Quarterly Journal of Economics*, 109–183.

Elul, R., Souleles, N. S., Chomsisengphet, S., Glennon, D., & Hunt, R. (2010). What" triggers" mortgage default?. *American Economic Review*, 100(2), 490-94.

Bricker, J., & Bucks, B. (2016). Negative home equity, economic insecurity, and household mobility over the Great Recession. *Journal of Urban Economics*, 91, 1-12.

Gupta, A. (2019). Foreclosure Contagion and the Neighborhood Spillover Effects of Mortgage Defaults. *Journal of Finance*, 74(5), 2249–2301.

Topic 4: Housing Price

Case, K. E., & Shiller, R. J. (1989). The Efficiency of the Market for Single-Family Homes. *American Economic Review*, 79(1), 125–137.

Cutler, D., Poterba, J., & Summers, L. H. (1991). Speculative dynamics. *Review of Economic Studies*, 58(3), 529–546.

Bailey, M., Davila, E., Kuchler, T., & Stroebel, J. (2019). House Price Beliefs and Mortgage Leverage Choice. *Quarterly Journal of Economics*, 86, 2403–2452.

Campbell, J. Y., Giglio, S., & Pathak, P. (n.d.). Forced Sales and House Prices. *American Economic Review*, *101*, 2108–2131.

Favara, G., & Imbs, J. (2015). Credit Supply and the Price of Housing. *American Economic Review*, *105*(3), 958–992.

Mian, A., & Sufi, A. (2011). House prices, home equity-based borrowing, and the US household leverage crisis. *American Economic Review*, *101*(5), 2132-56.

Mian, A., Rao, K., & Sufi, A. (2013). Household Balance Sheets, Consumption, and the Economic Slump. *Quarterly Journal of Economics*, *128*(4), 1687–1726.

Housing wealth and consumption: Evidence from geographically-linked microdata. *American Economic Review*, *107*(11), 3415-46.

Cloyne, J., Huber, K., Ilzetzki, E., & Kleven, H. (2019). The effect of house prices on household borrowing: a new approach. *American Economic Review*, *109*(6), 2104-36.

Waxman, A., Liang, Y., Li, S., Barwick, P. J., & Zhao, M. (2019). Tightening belts to buy a home: Consumption responses to rising housing prices in urban China. *Journal of Urban Economics*, 103190

Charles, K. K., Hurst, E., & Notowidigdo, M. J. (2018). Housing Booms and Busts, Labor Market Opportunities, and College Attendance. *American Economic Review*.

Bahaj, S., Foulis, A., & Pinter, G. (2020). Home values and firm behaviour. *American Economic Review*, *110*(7), 2225–2270.

Chetty, R., SÁndor, LÁ., & Szeidl, A. (2017). The Effect of Housing on Portfolio Choice. *Journal of Finance*, *72*(3), 1171–1212.

Topic 5: Housing Policy

Sinai, T., & Waldfoegel, J. (2005). Do low-income housing subsidies increase the occupied housing stock? *Journal of Public Economics*, *89*(11–12), 2137–2164.

Baum-Snow, N., & Marion, J. (2009). The effects of low income housing tax credit developments on neighborhoods. *Journal of Public Economics*, *93*(5-6), 654-666.

Eriksen, M. D., & Rosenthal, S. S. (2010). Crowd out effects of place-based subsidized rental housing: New evidence from the LIHTC program. *Journal of Public Economics*, *94*(11-12), 953-966.

Chyn, E. (2018). Moved to opportunity: The long-run effects of public housing demolition on children. *American Economic Review*, *108*(10), 3028-56.

Chetty, R., Hendren, N., & Katz, L. F. (2016). The effects of exposure to better neighborhoods on children: New evidence from the Moving to Opportunity experiment. *American Economic Review*, *106*(4), 855-902

Autor, D. H., Palmer, C. J., & Pathak, P. A. (2014). Housing market spillovers: Evidence from the end of rent control in Cambridge, Massachusetts. *Journal of Political Economy*, 122(3), 661-717

Diamond, R., McQuade, T., & Qian, F. (2019). The effects of rent control expansion on tenants, landlords, and inequality: Evidence from San Francisco. *American Economic Review*, 109(9), 3365-94.

Topic 6: COVID-19

Ambrus, A., Field, E., & Gonzalez, R. (2020). Loss in the Time of Cholera: Long-Run Impact of a Disease Epidemic on the Urban Landscape. *American Economic Review*, 110(2), 475–525.

Ramani, A., & Bloom, N. (2021). The Donut Effect of COVID-19 on Cities. *NBER Working Paper Series*.

Gupta, A., Mittal, V., Peeters, J., & Van Nieuwerburgh, S. (2021). Flattening the curve: Pandemic-Induced revaluation of urban real estate. *Journal of Financial Economics*

Rosenthal, S. S., Strange, W. C., & Urrego, J. A. (2022). Are city centers losing their appeal? Commercial real estate, urban spatial structure, and COVID-19. *Journal of Urban Economics*, 127

Mondragon, J. A., & Wieland, J. (2022). Housing Demand and Remote Work. *NBER Working Paper*.

PRESENTATION LIST

1. Allen, F., Babus, A., & Carletti, E. (2009). Financial Crises: Theory and Evidence. *Annual Review of Financial Economics*, 1(1), 97–116. <https://doi.org/10.1146/annurev.financial.050808.114321>
2. Amromin, Gene, Neil Bhutta, and Benjamin J. Keys. "Refinancing, monetary policy, and the credit cycle." *Annual Review of Financial Economics* 12 (2020): 67-93. <https://www.annualreviews.org/doi/abs/10.1146/annurev-financial-012720-120430>
3. Foote, Christopher L., and Paul S. Willen. "Mortgage-default research and the recent foreclosure crisis." *Annual Review of Financial Economics* 10 (2018): 59-100. <https://www.annualreviews.org/doi/abs/10.1146/annurev-financial-110217-022541>
4. Geltner, D. (2015). Real Estate Price Indices and Price Dynamics: An Overview from an Investments Perspective. *Annual Review of Financial Economics*, 7(1), 615–633. <https://doi.org/10.1146/annurev-financial-111914-041850>
5. Ghent, A. C., Torous, W. N., & Valkanov, R. I. (2019). Commercial Real Estate as an Asset Class. *Annual Review of Financial Economics*, 11, 153–171. <https://www.annualreviews.org/doi/abs/10.1146/annurev-financial-110118-123121>
6. Glaeser, E., & Gyourko, J. (2018). The Economic Implications of Housing Supply. *Journal of Economic Perspectives*, 32(1), 3–30. <https://doi.org/10.1257/jep.32.1.3>
7. Glaeser, E., Huang, W., Ma, Y., & Shleifer, A. (2017). A Real Estate Boom with Chinese Characteristics. *Journal of Economic Perspectives*, 31, 93–116. <https://doi.org/10.1257/jep.31.1.93>
8. Goodman, L. S., & Mayer, C. (2018). Homeownership and the American Dream. *Journal of Economic Perspectives*, 32(1), 31–58. <https://doi.org/10.1017/CBO9781107415324.004>
9. Gyourko, J. (2009). Housing Supply. *Annual Review of Economics*, 1(1), 295–318. <https://doi.org/10.1146/annurev.economics.050708.142907>
10. Himmelberg, C., Mayer, C., & Sinai, T. (2005). Assessing High House Prices: Bubbles, Fundamentals and Misperceptions. *Journal of Economic Perspectives*, 19(4), 67–92. <https://doi.org/doi:10.1257/089533005775196769>
11. Lea, M., & Sanders, A. B. (2011). Government Policy and the Fixed-Rate Mortgage. *Annual Review of Financial Economics*, 3(1), 223–234. <https://doi.org/10.1146/annurev-financial-102710-144920>
12. Mayer, C. (2011). Housing Bubbles: A Survey. *Annual Review of Economics*, 3(1), 559–577. <https://doi.org/10.1146/annurev.economics.012809.103822>
13. Metcalf, G. (2018). Sand castles before the tide? Affordable housing in expensive cities. *Journal of Economic Perspectives*, 32(1), 59–80. <https://doi.org/10.1257/jep.32.1.59>
14. Quigley, J. M., & Raphael, S. (2004). Is housing unaffordable? Why isn't it more affordable? *Journal of Economic Perspectives*, 18(1), 191–214. <https://doi.org/10.1257/089533004773563494>