

Economics of Real Estate Development (URBG 742) Fall Semester 2019

Mondays, 7:35-9:25 pm, West Building Room 1639

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Office hours: Mondays and Wednesdays 3:00-5:30 and by appointment

This course is about how real estate development works, whom it implicates and what is at stake when it happens – for investors, city governments, taxpayers, and people living in the neighborhoods where it is occurring. Understanding how real estate projects are financed is essential to understanding the development process, and students will develop basic skills in real estate financial analysis in this course. The first seven weeks are devoted to financing concepts and tools and to learning how to read, use, and troubleshoot a development pro forma.

Also essential to understanding how development works is a grasp of the various means by which the public sector makes real estate development and ownership feasible, profitable and socially impactful. City, state and federal officials influence real estate markets via rent regulation, property and capital gains taxation, fair housing legislation, mortgage subsidies, and infrastructure provision. And at the city level, in addition to shaping real estate development via zoning, city officials have begun to participate actively in financing it through tax credits, TIFs, and PILOT-backed bonds. More today than in the past, developers assume public and civic personas, participating in the development and management of assets (e.g. affordable housing and parks) that are intended to serve social interests as they generate economic returns. Increasingly, government actors, neighborhood groups and social justice organizations demand “public benefits” as a condition of development approval. But just what constitutes public benefit (and who should define the type and extent of benefit that is considered sufficient) is often a subject of controversy. In the second half of the course, we critically examine financial and regulatory mechanisms commonly employed to accomplish public sector goals in the real estate development arena. Throughout the class, we will be highly attentive to the politics of public sector/private sector interactions in the sphere of property development.

*** Required Text:** Josh Ryan-Collins, Toby Lloyd, and Laurie Macfarlane (2017), *Rethinking the Economics of Land and Housing*. London: Zed Books.

Learning objectives

Students will

- *develop a basic understanding of the mechanics of the financial analyses that underpin decisions to develop and invest in real estate projects and assets;*
- *develop a basic comfort and familiarity with the pro forma as an analytical tool for evaluating the financial feasibility of proposed real estate investments and developments;*
- *learn how mission-driven developers work with pro formas;*
- *gain a greater understanding of the public sector’s role/s in determining the feasibility, profitability, and social impact of real estate development through regulation and subsidy;*
- *examine controversies that arise around allocating the value created when public subsidy or investment contributes to the value of real property.*

Expectations and grading

To succeed in this course, you must come to all class sessions. Most sessions include technical material, working knowledge of which will be assumed in subsequent class sessions. In other words, the learning is cumulative, and missing a week will leave you needing to catch up with material that you have to be familiar with in order to follow the presentation and discussion the following week. Readings to accompany each week's topic are posted on Blackboard or in the required text, *Rethinking the Economics of Land and Housing*.

You will be evaluated based on 4 assignments. **Assignments will be accepted through Friday night of the week they are due and no later than that.**

- Present value, amortization and discounted cash flow analysis exercise (15%) – due Week 5, 10/14
- Development pro forma and worksheet for Vanilla Gardens Apartments (30%) – due Week 8, 10/28
- Development pro forma and worksheet for Solidarity Meadows exercise (30%) – due Week 11, 11/18
- Post-negotiation Memo (25%) – Due exam week, 12/16

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SCHEDULE AT A GLANCE

1. **SEPTEMBER 5 (THURSDAY!) – Introduction**
2. **SEPTEMBER 9 – The development process and regulation of development; overview of the pro forma**
3. **SEPTEMBER 16 – Thinking from the perspective of the lender; mortgage mechanics and introduction to discounted cash flow analysis**
4. **SEPTEMBER 23 – Back to the pro forma: operating cash flows and single-period return measures; introduction to Vanilla Gardens exercise**
5. **OCTOBER 7 – Vanilla Gardens exercise**
6. **OCTOBER 16 (WEDNESDAY!) – Back to the pro-forma: gain from sale and multi-period return measures (NPV and IRR)**
7. **OCTOBER 21 – Development cost and highest and best use analysis – land as a factor in development economics**
8. **OCTOBER 28 – Tax Credit Financing; introduction to Solidarity Meadows exercise**
9. **NOVEMBER 4 – Mission driven-development 1. GUEST – Cassandra Smith, Greenpoint Manufacturing and Design Center**
10. **NOVEMBER 11 – Mission driven-development 2. GUESTS – Eliot Hetterly and Vincent DeCesare (UPP grads & members of Hunter Community Partners, finalist team for the 2019 Bank of America Low Income Housing Competition)**
11. **NOVEMBER 18 – Tax Increment Financing, PILOT-backed bonds, and Community Benefits Agreements**
12. **NOVEMBER 25 – Rent regulation, eviction defense, inclusionary housing, and community land trusts**
13. **DECEMBER 2 – Negotiation exercise part 1**
14. **DECEMBER 9 – Negotiation exercise part 2**

NOTE: This course assumes basic familiarity with Excel. There are numerous free online resources that cover this ground including the following:

- Microsoft's Excel Training Center
<https://support.office.com/en-us/article/excel-for-windows-training-9bc05390-e94c-46af-a5b3-d7c22f6990bb?ui=en-US&rs=en-US&ad=US>
- Chandoo: <https://chandoo.org/>
- The Spreadsheet Page: <http://spreadsheetpage.com/index.php/tips>

By the end of the course, students will be able to use the financial functions in Excel that are relevant to real estate financial analysis, such as PV, FV, PMT, NPV and IRR.

DETAILED SCHEDULE WITH READINGS

1. SEPTEMBER 5 – Introduction

Property markets and property market rules – the contemporary state of play in the U.S. – Read **Chapters 1 & 2** of *Rethinking the Economics of Land and Housing*. A now-11-year-old This American Life/Planet Money episode, “The Giant Pool of Money,” will be played in class – I recommend that you listen in advance:

<https://www.thisamericanlife.org/355/the-giant-pool-of-money>.

2. SEPTEMBER 9 – The development process and the public sector’s role; overview of the pro forma

Mike E. Miles, Gayle L. Behrens, Mark E. Eppli and Marc A. Weiss, *Real Estate Development Principles And Processes*, 4th Edition. (Washington DC, Urban Land Institute, 2007) – Ch. 1 “The Real Estate Development Process,” and Ch. 3, “Developers and their Partners.”

Rachel Weber, excerpts from Chapters 2 and 3, *From Boom to Bubble: How Finance Built the New Chicago* (Chicago: University of Chicago Press, 2015)

3. SEPTEMBER 16 – Thinking from the perspective of the lender; mortgage mechanics and intro to discounted cash flow analysis

Anthony E. Boardman, David H. Greenberg, Aidan R. Vining and David L Weimer, *Cost-Benefit Analysis: Concepts and Practice*, Ch. 4 Benefits and Costs in Different Time Periods (this is particularly for students who have not been exposed to cash flow discounting and the time value of money)

Mike E. Miles, Richard Haney, and Gayle Berens, *Real Estate Development: Principles and Practice*. Washington, DC: Urban Land Institute, 1995 Ch 5 “Discounted Cash Flow Analysis” **Read up to the end of the “Mortgage Constant” section, page 72**

National Development Council (2012) *ED202 Real Estate Finance*, (Edgewood, KY: National Development Council). “Underwriting Ratios and How a Lender Looks at a Deal”

4. SEPTEMBER 23 – Back to the pro forma: operating cash flows and single-period return measures; introduction to Vanilla Gardens exercise

Mike E. Miles, Richard Haney, and Gayle Berens, *Real Estate Development: Principles and Practice*. Washington, DC: Urban Land Institute, 1995 Ch 5 “Discounted Cash Flow Analysis” (Week 3 folder) **Read the “Pro forma cash flow statement” section pp. 72-76**

Mike E. Miles, Richard Haney, and Gayle Berens, *Real Estate Development: Principles and Practice*. Washington, DC: Urban Land Institute, 1995 Ch 6 “The Successful Loan Application” **Read through the end of the “Determining Economic Feasibility” section, p. 95.**

National Development Council (2012) *ED202 Real Estate Finance* “The Pro Forma Income and Expense Schedule” (Edgewood, KY: National Development Council).

National Development Council (2012) *ED202 Real Estate Finance* “How income taxes affect real estate investment” (Edgewood, KY: National Development Council).

5. OCTOBER 7 – Back to the pro-forma part 2: gain from sale and multi-period return measures (NPV and IRR); more on cash flow discounting; depreciation

Mike E. Miles, Mike E., Richard L. Haney, and Gayle Berens, *Real Estate Development: Principles and Practice*. Washington, DC: Urban Land Institute, 2nd Edition 1995. Ch 5. “Discounted Cash Flow Analysis”(Week 3 folder) **Read “An Additional Time-Value-Of-Money Application” pp. 76-80**

Mike E. Miles, Richard Haney, and Gayle Berens, *Real Estate Development: Principles and Practice*. Washington, DC: Urban Land Institute, 1995 Ch 6 “The Successful Loan Application” (Week 4 folder) **Read “Discounted Cash Flow Analysis...Again.” pp. 98-101.**

6. OCTOBER 16 –(a WEDNESDAY!)In-class work on Vanilla Gardens exercise and discussion of

Chapter 4 of *Rethinking the Economics of Land and Housing* (please read it)

7. OCTOBER 21 – Development cost and highest and best use analysis – land and land speculation as factors in the economics of real estate

Read **Chapters 5 & 6** in *Rethinking the Economics of Land and Housing*

8. OCTOBER 28 – Tax Credit Financing; introduction to Solidarity Meadows exercise

LIHTC

- Novogradac & Company, LLC. 2011. Introduction to Low-Income Housing Tax Credits. Pre-Conference Workshop: LIHTC 101: The Basics. New Orleans, LA, May 18. (pp. 1-22).
- Office of the Comptroller of the Currency (2016) Low Income Housing Tax Credit Fact Sheet
- Alex Schwartz, 2014. Ch. 5, The Low Income Housing Tax Credit. In *Housing Policy in the United States*. . Routledge: New York, 3rd edition. (pp. 135-162)

Historic Tax Credits

- National Park Service Fact Sheet: <https://www.nps.gov/tps/tax-incentives.htm>
- Office of the Comptroller of the Currency (undated) Historic Tax Credits Fact Sheet
- Blair Kamin (2017), “Historic preservation Tax Credit is Saved, but weakened.” (*Chicago Tribune*)

New Markets Tax Credits

- Martin Abravenel, Nancy Pindus, Brett Theodos, Kassie Bertumen, Rachel Brash and Zach McDade (2013) *New Markets Tax Credit Program Evaluation*. Washington, DC: Urban Institute.
- Ruth Sparrow and Garvey Shubert Barer. 2003. *Opportunities and Issues in Combining NMTCs and Historic Tax Credits*. San Francisco Novogradac & Company LLP (pp. 1-3)

9. NOVEMBER 4 – Mission driven-development 1. GUEST – Cassandra Smith, Greenpoint Manufacturing and Design Center

Greenpoint Manufacturing and Design Center 2018 Annual Report <https://gmdconline.org/wp-content/uploads/GMDC-Annual-Report-2018.pdf>

10. NOVEMBER 11 – Mission driven-development 2. GUESTS – Eliot Hetterly and Vincent DeCesare (members of Hunter Community Partners, finalist team for the 2019 Bank of America Low Income Housing Competition)

Safety City Houses Community Land Trust: Final Development Proposal

11. NOVEMBER 18 – Tax Increment Financing, PILOT-backed bonds, and Community Benefits Agreements

Laura Wolf-Powers, Reclaim Value Capture for Equitable Urban Development, *Metropolitiques*, May 28, 2019 <https://www.metropolitiques.eu/Reclaim-Value-Capture-for-Equitable-Urban-Development.html>

Bridget Fisher and Flavia Leite, *The Cost of NYC's Hudson Yards Redevelopment Project*. 2018. New York: Schwartz Center for Economic Policy Analysis, The New School

Dan Immergluck and Tharunya Balan, 2018. Sustainable for Whom? Green urban development, environmental gentrification and the Atlanta Beltline *Urban Geography* 39:4 pp. 546-562.

https://www.researchgate.net/publication/318911766_Sustainable_for_whom_Green_urban_development_environmental_gentrification_and_the_Atlanta_Beltline

(Optional) Laura Wolf-Powers, 2010, Community benefits agreements and local government: A review of recent evidence. *Journal of the American Planning Association*. 76(2): 141-159.

12. NOVEMBER 25 – Rent regulation, eviction defense, inclusionary housing, and community land trusts

Read **Chapter 7** of *Rethinking the Economics of Land and Housing*

Allan Mallach, Whose Affordable Housing Crisis? *Shelterforce Magazine* Winter 2018-2019 <https://shelterforce.org/2019/02/19/whose-affordable-housing-crisis/>

Eric Seymour and Joshua Akers, Building the Eviction Economy: Speculation, Precarity and Eviction in Detroit *Urban Affairs Review* published online June 23, 2019 <https://doi.org/10.1177/1078087419853388>

Joshua Akers, Contesting Economies of Displacement and Dispossession *Metropolitiques* 1/13/17 <https://www.metropolitiques.eu/Contesting-Economies-of.html>

BAE Urban Economics - 2015 - *Market and Financial Study – NYC Mandatory Inclusionary Housing*

Abigail Savitch-Lew, The NYC Community Land Trust Movement Wants to Go Big *City Limits* January 8, 2018. <https://citylimits.org/2018/01/08/the-nyc-community-land-trust-movement-wants-to-go-big/>

Guest speaker: Prof. Hilary Botein, Baruch College

13. DECEMBER 2 – Negotiation exercise part 1

(Roles assigned and review materials distributed in class November 25)

14. DECEMBER 9 – Negotiation exercise part 2

