



## CRE MONTHLY BRIEF Summer 2023

### HIGHLIGHT+

**Thank you** to all speakers and attendees who came to MIT, on June 15+16, 2023, to discuss driving the real estate industry toward an equitable and sustainable future. We hope you learned so much from everyone – investing in triple bottom line development to help realize ESG goals while being financially profitable, scaling circular building techniques, achievable approaches that contribute the most to reducing operational and embodied carbon, and so much more!

[Read the recap →](#)

[WATCH a brief segment from the Decarbonizing the Built Environment Panel →](#)



# JOURNAL PUBLICATIONS+

01

## Decarbonization Technology

[“Quantifying the financial value of building decarbonization technology under uncertainty: Integrating energy modeling and investment analysis,”](#) was accepted by the journal, *Energy and Buildings*. The paper demonstrates how research can tackle the question of whether developers should choose traditional gas-based heating or fully electrific-based heating, or pursue a third option of flexible design. This paper is led by Sustainable Urbanization Lab (SUL) graduate researcher **Alejandro Jose Valdez Echeverria**. Co-authors: **Carlos Cerezo Davila**, **Juan Palacios**, and **Siqi Zheng**.

02

## How Land Use Regulation Affects Growth

The paper, [“Quantifying Land-Use Regulation and its Determinants”](#) from co-authors, **Simon Büchler** and **Maximilian von Ehrlich** was published in the *Journal of Economic Geography*. The paper shows that across Swiss municipalities, historical building density, natural amenities, socio-demographic factors, cultural aspects, and municipal competition are important determinants of local land-use regulation. Further, more stringent land-use regulation is associated with steeper house price increases but less urban sprawl.

03

## Housing, Education, and Cities

[“The Impact of Human Capital and Housing Supply on Urban Growth”](#) co-authored by **Simon Büchler**, **Dongxiao Niu**, **Anne Kinsella Thompson**, and **Siqi Zheng** is published in *Urban Studies*. The study explores the relationship between human capital and housing supply on urban growth in the US and China. The researchers find that in both countries a more educated population in a city enables growth. In turn, this tends to increase home prices and wages. Education is important for urban growth, but having enough houses is also necessary for balanced growth.

# WORKING PAPER SERIES+

01

## Is Climate Change Making Investments Less Profitable?

[“Does Climate Change Affect Investment Performance? Evidence from Commercial Real Estate,”](#) this working paper explores the impact exposure to extreme temperature shocks has on investment performance of CRE at the individual asset level. Authors find that exposure to extreme temperatures significantly reduces average realized total returns in CRE. Co-authors: **Alex Van de Minne**, **Dragana Cvijanovic**



## ACADEMIC+INDUSTRY PROGRAMS

Researchers from MIT/CRE and Wentworth Institute of Technology Construction Management program gave a briefing to policymakers regarding their joint report with Home Builders and Remodelers Association of Massachusetts (HBRAMA) at the Massachusetts State House July 18. They emphasized the importance of adopting the opt-in specialized code to help Massachusetts achieve emissions reductions and avoid the higher cost of future electrification retrofits. [Read about the pathways to accomplishing both net-zero and housing affordability →](#)

→ The Center's **Steve Weikal**, industry chair for the Real Estate Transformation Lab, was honored at the recent [Proptech LatAm Summit](#) in Mexico City with the 2023 Global PropTech Influencer Award. He later shared with the audience about the meta-trends causing an epic reordering of the physical world, called the Built Environment Transition (BET).

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→ Thank you to the participants of this year's 2-week Professional Certificate Program in Real Estate Finance & Development. The program was particularly memorable with the cohort coming from far and wide to learn together at MIT. The cohort toured campus, took site visits to Boston development projects, and attended a networking reception with attendees of the World Real Estate Forum. [View Gallery →](#)

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→ On June 14, 2023, the Center's **Steve Weikal** welcomed participants in the BlueScopeX Buildings of the Future \$100K Prize. The demo day consisted of nine innovative companies from the recent BlueScope accelerator

aiming to win the prize. The Winner: [GigBridge](#) and Runner-Up: [Matrak](#). Congratulations teams! Presented in collaboration with the MIT Start-up Exchange (STEX).

→ Focused on real estate development, investing, and technology – Online Short Courses from MIT in collaboration with 2U, provide a flexible learning option:

*Upcoming classes:*

- [Commercial Real Estate Analysis + Investment](#), Began July 26, 2023 – LAST CALL  
Identify opportunities for profitable investment in the commercial real estate sector.
- [Data Science and Real Estate](#), Begins Sept. 27, 2023  
Gain the analytical tools to utilize data for informed decision making in real estate.
- [Real Estate Development Planning and Process](#), Begins Oct. 11, 2023  
Explore the complex public regulatory processes that underpin and control private real estate development.

[SEE ALL ONLINE COURSE OFFERINGS →](#)

## MSRED+ALUMNI UPDATES

### MIT Commencement



> MIT's Commencement Ceremony for the School of Architecture and Planning (SA+P) was held Thursday, June 1, 2023. MSRED degree candidates received their diplomas at the Swraj Paul Theater at MIT's Kresge Auditorium. The ceremony was presided over by the **Honorable Michelle Wu**, Mayor of the City of Boston, who delivered the keynote address to graduates and their guests.

[Read the recap on MIT News →](#)

[WATCH the full ceremony →](#)

> Congratulations to **Will Gietema** for earning the 2023 MSRED Thesis Excellence Award. His thesis is entitled, "Hedging a Falling Knife: Investing Through the Post Covid-19 Dallas-Fort Worth Housing Correction Utilizing Real Options Strategies". **Professor Albert Saiz** was his thesis advisor.

## Alumnae/i News

- Alumnae **Nicole Zaccack** (Jonathan Rose Companies) is part of REBNY's 2023 Fellowship program. All of the Fellows come from different sectors of the real estate industry, and share a common goal of building their leadership skills and taking their careers to the next level. Zaccack, "Is deeply passionate about development and driven by her desire to address systematic inequality through affordable, safe, clean, and healthy housing."

[Read more →](#)



- Thank you to alumni **Ari Arbabi, Phil Cohen, Patrick Downey, and Chris Whittier** of the AACRE for helping to plan an MSRED get-together during the Cocktail Hour and Tech Showcase at the World Real Estate Forum in June.

## Mentor Opportunities

The Center is accepting Fall 2023 mentor applications. We'll be sharing an invite to sign-up to our network in August. If you're interested in mentoring or other engagement opportunities, please email:

[rkcam@mit.edu](mailto:rkcam@mit.edu)



## LAB+PI UPDATES

The Inaugural MIT Asia Real Estate Symposium begins today, July 31 – Aug. 1, 2023. Twelve fascinating academic papers will be presented during the 2-day event aiming to advance research and engage scholars on a global level. We welcome scholars and industry members to campus. [View the agenda and research papers →](#)

→ SUL researcher, **María Jimena Muzio**, won the Department of Urban Studies and Planning's (DUSP) Outstanding MCP Thesis Award for her thesis, "Understanding Housing Supply under Stringent Energy-efficiency Regulations". Her thesis, co-advised by Professors **Justin Steil** and **Siqi Zheng**, is built on the HBRAMA sponsored research project and CRE Working Paper, "Public Policy for Net-Zero Homes and Housing Affordability". Muzio will do post-graduate work at MIT Environmental Solutions Initiative, researching carbon markets and biodiversity conservation and preservation in Latin America. [Read more](#) →

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→ Urban Economics Lab (UEL) is pleased to announce that **Elena Lutz** has joined the lab as a research associate. Elena Lutz is a Ph.D. candidate in Urban Economics and Urban Policy at ETH Zurich. Her research is at the intersection of economics, urban planning, and data science. [Read More](#) →

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→ Members of UEL participated in the recent 2023 [American Real Estate and Urban Economics Association \(AREUEA\) National Conference](#) in Washington DC. **Professor Albert Saiz** (UEL's PI and Second Vice President of AREUEA), **Vinicios Sant'Anna** (Postdoctoral Associate), and **Elena Lutz** (Research Associate) participated in this amazing conference, which brings together policymakers, academics, and real estate practitioners to present and discuss the latest research in urban economics and real estate. [View the conference program](#) →

## MIT/CRE NEWS

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GIVING



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