

**Abstracts**

**The 26th  
AsRES Annual Conference:  
2022 AsRES-AREUEA  
Joint Conference, Tokyo, Japan  
August 4-7, 2022**



# AREUEA-AsRES Tokyo Conference 2022

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# Conference Agenda

**Date: Thursday, 04/Aug/2022**

- |               |   |
|---------------|---|
| <b>1:30pm</b> | <b>Speech: Keynote Speech &amp; Invited Talks</b>   |
| -             | Location: <b>UTokyo Ito Hall</b>  |
| <b>2:20pm</b> | "Challenges to the Real Estate Market (Research) in Japan"<br>Takatoshi Ito (Columbia University) |
| <b>5:00pm</b> | <b>Reception: Reception</b>   |
| -             | Location: <b>UTokyo Ito Hall</b>  |
| <b>7:00pm</b> |   |

Date: Friday, 05/Aug/2022

7:30am  
-  
9:30am

**ARV-1: AREUEA:  
House Prices**  
Virtual location:  
**AREUEA-Virtual  
1**

Chair: **Dr. Shuang Zhu**, Kansas State University, United States of America  
Discussant: **Prof. Yunqi Zhang**, Nankai University, China, People's Republic of  
Discussant: **Dr. Adrian D. Lee**, Deakin University, Australia  
Discussant: **Prof. Jing Yang**, California State University at Fullerton, United States of America  
Discussant: **Dr. Shuang Zhu**, Kansas State University, United States of America

**Who Gains from Housing Market Stimulus? Evidence from Housing Assistance Grants with Threshold Prices**

**Agarwal, Sumit<sup>1</sup>; Hu, Maggie<sup>2</sup>; Lee, Adrian D.<sup>3</sup>**

1: National University of Singapore; 2: Chinese University of Hong Kong; 3: Deakin University, Australia

**Productivity Shocks of Dominant Companies and Local Housing Markets**

**Yang, Jing; Staer, Arsenio; Nguyen, Thanh**

California State University at Fullerton, United States of America

**State Deficiency Laws, Borrower Price Protection, and**

**ARV-2: AREUEA:  
Real Estate and Macro Economy**  
Virtual location:  
**AREUEA-Virtual  
2**

Chair: **Dr. Charles Ka Yui Leung**, City University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Fengting Zhang**, University of Reading, United Kingdom  
Discussant: **Dr. Charles Ka Yui Leung**, City University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Prof. Zonghie Han**, Daegu University, Korea, Republic of (South Korea)  
Discussant: **Hang Lai**, University College London, United Kingdom

**Corporate Real Estate Holding and Stock Returns: International Evidence from Listed Companies**

**Ng, Joe Cho Yiu; Leung, Charles Ka Yui; Chen, Suikang**

City University of Hong Kong, Hong Kong S.A.R. (China)

**Property Registration and Economic Growth in the Colonial Korea**

**Han, Zonghie**  
Daegu University, Korea, Republic of (South Korea)

**Long-run Discount Rates: Evidence from UK Repeat Sales Housing**

**Lai, Hang; Milcheva, Stanimira**  
University College London, United Kingdom

**ARV-3: AREUEA:  
House Prices and Risk**  
Virtual location:  
**AREUEA-Virtual  
3**

Chair: **Prof. Lily Shen**, Clemson, United States of America  
Discussant: **Dr. Maggie Hu**, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Dr. Nikodem Szumilo**, University College London, United Kingdom  
Discussant: **Yaopei Wang**, National university of Singapore, China, People's Republic of  
Discussant: **Dr. Walter D'Lima**, Florida International University, United States of America

**Judge Dread: Court severity, repossession risk and demand in mortgage and housing markets.**

**Montebruno, Piero; Silva, Olmo; Szumilo, Nikodem**

University College London, United Kingdom

**Mass rail transit and the landscape changes of neighborhood housing investment: Evidences from Singapore**

**Tu, Yong; Wang, Yaopei**  
National university of Singapore

**Risk Perception in Housing Markets: Evidence from a Fighter Jet Crash**

**D'Lima, Walter<sup>1</sup>; Komarek,**

**ARV-4: AREUEA:  
Real Estate Development**  
Virtual location:  
**AREUEA-Virtual  
4**

Chair: **Prof. Alexander David Rothenberg**, Syracuse University, United States of America  
Discussant: **Prof. Alexander David Rothenberg**, Syracuse University, United States of America  
Discussant: **Dr. Sylvia He**, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Dr. Rodrigo Martinez-Mazza**, Uppsala University, Sweden  
Discussant: **Nikita Kotsenko**, Hebrew University, Israel

**Regional impact of rail network accessibility on residential property price: Modelling spatial heterogeneous capitalisation effects in Hong Kong**

**He, Sylvia Ying**  
The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

**Flood and Urban Density**

**Martinez-Mazza, Rodrigo<sup>1,3</sup>; Magontier, Pierre<sup>2,3</sup>**

1: Uppsala University, Sweden; 2: University of Bern (CRED); 3: Barcelona Institute of Economics (IEB)

**Demand Uncertainty and Presale in Residential Development**

**Kotsenko, Nikita**

### Auction Sale Outcomes

**Pace, R.Kelley<sup>2</sup>; Zhu, Shuang<sup>1</sup>**

1: Kansas State University, United States of America; 2: Louisiana State University, USA

### Alcohol Consumption and the Value of Community

**Zhang, Xiaoyu<sup>1</sup>; Zhang, Yunqi<sup>2</sup>**

1: Sun Yat-Sen University; 2: Nankai University

### Does media political bias affect land price? Evidence from the Chinese land market

**Marcato, Gianluca; Zhang, Fengting; Zheng, Chen**

University of Reading, United Kingdom

**Timothy<sup>2</sup>; Lopez, Luis<sup>3</sup>**

1: Florida International University; 2: Old Dominion University; 3: University of Illinois at Chicago

Hebrew University, Israel

### Road Maintenance and Local Economic Development: Evidence from Indonesia's Highways

**Gertler, Paul J.<sup>1</sup>; Gonzalez-Navarro, Marco<sup>2</sup>; Gracner, Tadeja<sup>3</sup>; Rothenberg, Alexander David<sup>4</sup>**

1: University of California, Berkeley, United States of America; 2: University of California, Berkeley, United States of America; 3: RAND Corporation, United States of America; 4: Syracuse University, United States of America

### Tobin Tax Policy, Housing Speculation, and Property Market Dynamics

**Agarwal, Sumit<sup>1</sup>; Chau, Kwong Wing<sup>2</sup>; Hu, Maggie Rong<sup>3</sup>; Wan, Wayne Xinwei<sup>4</sup>**

1: National University of Singapore; 2: The University of Hong Kong; 3: The Chinese University of Hong Kong; 4: University of Cambridge, United Kingdom

10:00am - 12:00pm

### AST-1: AsRES: Housing Cost, Supply, and Zoning

Location:

#### Hitotsubashi 1

Chair: **Albert Saiz**, MIT, United States of America

Discussant: **Hsi-Ling Liao**, New York University, United States of America

Discussant: **Albert Saiz**, MIT, United States of America

Discussant: **Prof. Jun Hyung Kim**, Myongji University, Korea, Republic of (South Korea)

Discussant: **Minji Lee**, Jeju National University, Korea, Republic of (South Korea)

Discussant: **Prof. Jun Hyung Kim**, Myongji University, Korea, Republic of (South Korea)

Discussant: **Minji Lee**, Jeju National University, Korea, Republic of (South Korea)

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Discussant: **Minji Lee**, Jeju National University, Korea, Republic of (South Korea)

### AST-2: AsRES: Urban Economics

Location:

#### Hitotsubashi 2

Chair: **Dr. Masatomo Suzuki**, Hitotsubashi University, Japan

Discussant: **Takafumi Kawakubo**, LSE, United Kingdom

Discussant: **Dr. Masatomo Suzuki**, Hitotsubashi University, Japan

Discussant: **Prof. Hai Feng Hu**, Wenzao Ursuline University of Languages, Taiwan

Discussant: **Dr. Christopher Alex Hooton**, Meta, Israel

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Discussant: **Dr. Christopher Alex Hooton**, Meta, Israel

Discussant: **Dr. Christopher Alex Hooton**, Meta, Israel

### AST-3: AsRES: Alternative Data and Computation

Location:

#### Hitotsubashi 3

Chair: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

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Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Discussant: **Young-Sun Song**, Hanyang University, Korea, Republic of (South Korea)

Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

### ART-1: AREUEA: Policies and Regulations 1

Location:

#### Hitotsubashi 4

Chair: **Prof. Jeremy Moulton**, UNC Chapel Hill, United States of America

Discussant: **Prof. Jeremy Moulton**, UNC Chapel Hill, United States of America

Discussant: **Eren Aydin**, Universität Hamburg, Germany

Discussant: **Prof. David A Leather**, Chapman University, United States of America

Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

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Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

Discussant: **Prof. Yusu Kim**, University of Connecticut, United States of America

### ART-2: AREUEA: Inequality and Intergenerational Issues

Location:

#### Hitotsubashi 5

Chair: **Prof. Jiro Yoshida**, The Pennsylvania State University, United States of America

Discussant: **Dr. Ying Fan**, The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

Discussant: **Dr. James Hansen**, University of Melbourne, Australia

Discussant: **Prof. Takuya Ishino**, Kanazawa Seiryō University, Japan

Discussant: **Prof. Kazuto Sumita**, Toyo University, Japan

Discussant: **Prof. Kazuto Sumita**, Toyo University, Japan

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Discussant: **Prof. Kazuto Sumita**, Toyo University, Japan

Discussant: **Prof. Kazuto Sumita**, Toyo University, Japan

### ART-3: AREUEA: Commercial Real Estate

Location:

#### Hitotsubashi 6

Chair: **Prof. Alexei Tchisty**, Cornell University, United States of America

Discussant: **Kazushi Matsuo**, University of Tsukuba, Japan

Discussant: **Dr. Sean Flynn**, Cornell University, United States of America

Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

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Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

Discussant: **Prof. Alexei Tchisty**, Cornell University, United States of America

**What is the effect of the self occupancy rate of the apartment complex on the**

**Chinese tourist demand to travel to Switzerland:**

**management cost?**

**Lee, Heon-Goo;**  
**Kim, Jun Hyung**  
Myongji University,  
Korea, Republic of  
(South Korea)

**Kimihiro<sup>2</sup>; Muto,  
Sachio<sup>2</sup>**

1: Hitotsubashi  
University, Japan;  
2: The University of  
Tokyo, Japan

**Roles of media  
sentiments for  
the destination,  
competing  
destinations,  
and origin  
country**

**Mori, Masaki<sup>1</sup>;**  
**Wu, Yi<sup>2</sup>; Li,  
Dongui<sup>3</sup>**

1: EHL Hospitality  
Business School,  
HES-SO,  
University of  
Applied Sciences  
and Arts Western  
Switzerland,  
Switzerland; 2:  
University of  
Reading; 3:  
Shenzhen  
University

University of St.  
Gallen, Switzerland

Queensland,  
Australia

**What's the  
Use? Land Use  
Uncertainty,  
Real Estate  
Prices, and the  
Redevelopment  
Option**

**Leather, David A**  
Chapman  
University, United  
States of America

**Intergenerational  
Correlation of  
Household  
Wealth:  
Evidence from  
the JHPS  
Second-  
Generation  
Supplement**

**Naoi, Michio<sup>1</sup>;**  
**Seko, Miki<sup>2</sup>;**  
**Sumita, Kazuto<sup>3</sup>;**  
**Ishino, Takuya<sup>4</sup>**

1: Keio University,  
Japan; 2:  
Musashino  
University; 3: Toyo  
University; 4:  
Kanazawa Seiryō  
University, Japan

**Quantifying the  
Factors  
Contributing to  
Inefficiencies in  
the Tokyo  
Office Market**

**Matsuo, Kazushi<sup>1</sup>;**  
**Tsutsumi,  
Morito<sup>2</sup>; Imazeki,  
Toyokazu<sup>3</sup>**

1: Graduate School  
of Systems and  
Information  
Engineering,  
University of  
Tsukuba, Japan.;  
2: Faculty of  
Engineering,  
Information and  
Systems,  
University of  
Tsukuba, Japan.;  
3: Commercial  
Property Research  
Institute, Inc.,  
Japan.

**The study on  
the burden of  
housing costs  
on households  
in South Korea**

**Lee, Minji; Jung,  
Suyeon**

Jeju National  
University, Korea,  
Republic of (South  
Korea)

**The Effects of  
Urban Dream  
on the  
Population  
Dynamics in  
Megacities**

**Hu, Hai Feng**

Wenzao Ursuline  
University of  
Languages,  
Taiwan

**The Effect of  
Rezoning on  
Local Housing  
Supply and  
Demand:  
Evidence from  
New York City**

**Liao, Hsi-Ling**

New York  
University, United  
States of America

**Current and  
Post-Pandemic  
Cities: A 30-  
Country Small  
Business  
Survey on  
Urban Markets  
and the COVID-  
19 Pandemic**

**Hooton,  
Christopher Alex**

Meta

**Will differently  
framed media  
coverage on  
housing market  
issues affects  
perceptions of  
the issues?**

**Oh, Jihun; Kim,  
Jeongseob**

Ulsan National  
Institute of Science  
and Technology  
(UNIST), Korea,  
Republic of (South  
Korea)

**Impact of  
Property  
Assessment  
Frequency on  
Assessment  
Outcomes:  
Evidence from  
Virginia and  
New York**

**Kim, Yusun<sup>1</sup>;**  
**Hou, Yilin<sup>2</sup>**

1: University of  
Connecticut,  
United States of  
America; 2:  
Syracuse  
University, United  
States of America

**Underutilized  
housing in aging  
society: How  
bequest motives  
and inheritance  
taxes impact  
housing choice**

**Seko, Miki<sup>1</sup>;**  
**Sumita, Kazuto<sup>2</sup>;**  
**Yoshida, Jiro<sup>3</sup>**

1: Musashino  
University, Japan; 2:  
Toyo University,  
Japan; 3: The  
Pennsylvania  
University, Japan

**Tenant Portfolio  
Selection for  
Managing a  
Shopping  
Center**

**Kariya, Takeaki<sup>1</sup>;**  
**Takada,  
Hideyuki<sup>2</sup>;**  
**Yamamura,  
Yoshiro<sup>3</sup>**

1: Nagoya  
University of  
Commerce and  
Business, Japan;  
2: Toho University;  
3: Meiji University

**Supply Chain  
Dynamics and  
Resilience of  
the Economy  
During a Crisis**

**Kawakubo,  
Takafumi<sup>1</sup>;**  
**Suzuki, Takafumi<sup>2</sup>**

1: LSE, United  
Kingdom; 2: Aichi  
Shukutoku  
University, Japan

**Mortgage  
Default: A  
Heterogeneous-  
Agent Model**

**Kalikman, Philip<sup>1</sup>;**  
**Scally, Joelle<sup>2</sup>**

1: Syms School of  
Business, Yeshiva  
University, United  
States of America;  
2: Federal Reserve  
Bank of New York

**When Do  
Property Taxes  
Matter? Tax  
Salience and  
Heterogeneous  
Policy Effects**

**Gindelsky,  
Marina<sup>1</sup>; Moulton,  
Jeremy<sup>2</sup>;**  
**Wentland, Kelly<sup>3</sup>;**  
**Wentland, Scott<sup>1</sup>**

1: U.S. Bureau of  
Economic Analysis;  
2: UNC Chapel Hill,  
United States of  
America; 3: George  
Mason University,  
United States of  
America

**Offspring's  
Income  
Uncertainty and  
Dynastic  
Decisions:  
Evidence from  
Urban China**

**Fan, Ying<sup>1</sup>; Wang,  
Yidi<sup>2</sup>; Yang, Zan<sup>2</sup>**

1: The Hong Kong  
Polytechnic  
University; 2:  
Tsinghua University

**Did PPP Loans  
Distort  
Business  
Competition?  
Evidence from  
the Hotel  
Industry.**

**Steiner, Eva<sup>2</sup>;**  
**Tchistyi, Alexei<sup>1</sup>**

1: Cornell  
University, United  
States of America;  
2: Penn State  
University, United  
States of America

**The Effect of  
Rezoning on  
Local Housing  
Supply and  
Demand:  
Evidence from  
New York City**

**Liao, Hsi-Ling**

New York  
University, United  
States of America

**Comparison  
between the  
Hedonic model  
and the Repeat  
Sales model for  
the Price  
Indices of  
Office Market in  
Seoul**

**Song, Young-  
Sun; Lee, Chang-  
Moo**



Hanyang University, Korea, Republic of (South Korea)

12:00pm - Lunch-1: Lunch-1

1:00pm

1:00pm

-

3:00pm

**AST-4: AsRES: Multiple Perspectives on Real Estate**

Location:

**Hitotsubashi 1**

Chair: **Prof. Desmond Tsang**, Chinese University of Hong Kong, Hong Kong S.A.R. (China)

Discussant: **Prof. Shinichiro Iwata**, Kanagawa University, Japan

Discussant: **Prof. Desmond Tsang**, Chinese University of Hong Kong S.A.R. (China)

Discussant: **Jungseok Seo**, Ulsan National Institute of Science and Technology (UNIST), Korea, Republic of (South Korea)

Discussant: **Siravich Chatrkaw**, Thammasat, Thailand

**Needed but not there: The relationship between firm location, corporate site visits, and stock price crash Risk**

**Chu, Xiaoling<sup>1</sup>; Lo, Kin<sup>2</sup>; Tsang, Desmond<sup>3</sup>**

1: University of Hong Kong; 2: University of British Columbia; 3: Chinese University of Hong Kong

**The retail resilient characteristics in subway commercial district: A case of Seoul, South Korea**

**Seo, Jungseok; Kim, Jeongseob**

Ulsan National Institute of Science and Technology (UNIST), Korea,

**AST-5: AsRES: Rents and Prices of Residential Real Estate**

Location:

**Hitotsubashi 2**

Chair: **Dr. Yoshiki Shimizu**, University of Minnesota Duluth, United States of America

Discussant: **Deborah Leshinsky**, Alicante University, Australia

Discussant: **Dr. Yoshiki Shimizu**, University of Minnesota Duluth, United States of America

Discussant: **Hung-Wei Lee**, National Tsing Hua University, Taiwan

Discussant: **Prof. Jin Man Lee**, DePaul University, United States of America

**Crime Rates and Housing Prices: An Analysis Using Quantile Regression and Spatial Autocorrelation**

**Kallberg, Jarl G<sup>1</sup>; Shimizu, Yoshiki<sup>2</sup>**

1: Washington State University, United States of America; 2: University of Minnesota Duluth, United States of America

**The Analysis of Reasonable Rental Cost: A Viewpoint from Real Options**

**Lee, Hung-Wei; Lin, Che-Chun; Tsai, I-Chun**

National Tsing Hua University, Taiwan

**Coincidence of Housing Conversion and Disinvestment:**

**AST-6: AsRES: ESG of Real Estate**

Location:

**Hitotsubashi 3**

Chair: **Dr. Haruyoshi Ito**, Aoyama Gakuin University, Japan

Discussant: **Dr. Haruyoshi Ito**, Aoyama Gakuin University, Japan

Discussant: **Dr. Peter John Hunt**, University of New South Wales, Australia

Discussant: **Nick Martin Trefz**, EBS Universität für Wirtschaft und Recht, Germany

Discussant: **Alois Weigand**, University of St. Gallen (HSG), Switzerland

**Sustainable real estate investment in an unpredictable future**

**Hunt, Peter John**

University of New South Wales, Australia

**ESG Stocks in Times of Crisis: Evidence from US REITs During Covid-19**

**Trefz, Nick Martin; Mutl, Jan**

EBS Universität für Wirtschaft und Recht, Germany

**The Low-Carbon Rent Premium of Residential Buildings**

**Brändle, Angelika<sup>3</sup>; Füss, Roland<sup>1,2</sup>; Schläpfer, Jörg<sup>3</sup>; Weigand, Alois<sup>1</sup>**

1: University of St. Gallen (HSG), Switzerland; 2:

**ART-4: AREUEA: Policies and Regulations 2**

Location:

**Hitotsubashi 4**

Chair: **Dr. Maggie Hu**, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

Discussant: **Prof. Kwan Ok Lee**, National University of Singapore, Singapore

Discussant: **KE XU**, the University of Hong Kong, Hong Kong S.A.R. (China)

Discussant: **Stef Schildermans**, KU Leuven, Belgium

Discussant: **Prof. Richard Green**, University of Southern California, United States of America

**Cross-market Spillovers of Real Estate Speculation**

**Hu, Rong<sup>1</sup>; Wan, Xinwei<sup>2</sup>; Xu, Ke<sup>3</sup>**

1: The Chinese University of Hong Kong; 2: The University of Cambridge; 3: The University of Hong Kong

**Split incentives, imperfect information and energy efficiency subsidies**

**Damen, Sven<sup>1</sup>; Goeyvaerts, Geert<sup>2</sup>; Schildermans, Stef<sup>2</sup>**

1: University of Antwerp, Belgium; 2: KU Leuven, Belgium

**Do urban regulations exacerbate rural-urban inequality? The**

**ART-5: AREUEA: Topics in Urban Economics**

Location:

**Hitotsubashi 5**

Chair: **Prof. Michio Naoi**, Keio University, Japan

Discussant: **Makoto Sakuma**, NLI Research Institute, Japan

Discussant: **Atsushi Yamagishi**, Princeton University, United States of America

Discussant: **Prof. Mizuki Kawabata**, Keio University, Japan

Discussant: **Albert Saiz**, MIT, United States of America

**Measuring Discrimination in Spatial Equilibrium: 100 Years of Japan's Invisible Race**

**Yamagishi, Atsushi<sup>1</sup>; Sato, Yasuhiro<sup>2</sup>**

1: Princeton University, United States of America; 2: The University of Tokyo, Japan

**Earthquake risk reduction and land value along geographic boundaries of extremely high-risk urban districts**

**Kawabata, Mizuki<sup>1</sup>; Naoi, Michio<sup>1</sup>; Yasuda, Shohei<sup>2</sup>**

1: Keio University, Japan; 2: Nihon University, Japan

**Physical Geography and Traffic Delays: Evidence from a Major Coastal City**

**Saiz, Albert; Wang, Luyao**

**ART-6: AREUEA: Homeownership and Mortgage Financing**

Location:

**Hitotsubashi 6**

Chair: **Prof. Timothy Riddiough**, University of Wisconsin Madison School of Business, United States of America

Discussant: **Prof. Timothy Riddiough**, University of Wisconsin Madison School of Business, United States of America

Discussant: **Donglin He**, University of St. Gallen, Switzerland

Discussant: **Prof. Philip Kalikman**, Syms School of Business, United States of America

Discussant: **Dr. Alla Koblyakova**, Nottingham Trent University, United Kingdom

**Quantitative Easing and Disparity in the Mortgage Lending**

**Füss, Roland; He, Donglin**

University of St. Gallen, Switzerland

**Targeted Principal Forgiveness Is Effective: Mortgage Modification and Financial Crisis**

**Kalikman, Philip<sup>1</sup>; Scally, Joelle<sup>2</sup>**

1: Syms School of Business, United States of America; 2: Federal Reserve Bank of New York

**Locational Differences in Mortgage Affordability**



Republic of (South Korea)

**DETERMINING PREDICTORS OF RESIDENTIAL SATISFACTION DURING THE COVID-19 PANDEMIC AMONG WHITE-COLLAR EMPLOYEES WITH WORK-FROM-HOME EXPERIENCE IN LANDED DWELLING HOUSING IN BANGKOK**

**Chatrkaw, Siravich;**  
**Pongprasert, Pornraht**  
Thammasat, Thailand

**The impact of house price shocks on labor supply decisions in Japan**

**Iwata, Shinichiro**  
Kanagawa University, Japan

**IRES: Emerging Trends in Sustainable Real Estate Research**

Location: **Hitotsubashi Hall**

Chair: **Prof. Francois Viruly**, University of Cape Town, South Africa  
Discussant: **Prof. Kwan Ok Lee**, National University of Singapore, Singapore

**Dinner-1: Conference Dinner at Tokyo Dome Hotel**

3:30pm  
-  
5:30pm  
6:00pm  
-  
8:00pm

**Microevidence from Small Multifamily Homes**

**LEE, JIN**<sup>1</sup>; **Kim, Jinhwan**<sup>2</sup>;  
**Ashton, Philip**<sup>3</sup>  
1: DePaul University, United States of America;  
2: Hanyang University, Republic of Korea;  
3: University of Illinois at Chicago

**Market and Non-Market Determinants of Property Valuations decided through the Court System in Family Law Separation in Australia: Developing a Scientific Approach**

**Leshinsky, Deborah**  
Alicante University, Australia

NTNU Business School, Norway; 3: Wüest Partner AG

**On the Pandemic Risk of Real Estate Investment in Japan**

**Ito, Haruyoshi**  
Aoyama Gakuin University, Japan

**case of rent control in India\***

**Dutta, Arnab**<sup>1</sup>;  
**Gandhi, Sahil**<sup>2</sup>;  
**Green, Richard**<sup>1</sup>  
1: University of Southern California, United States of America;  
2: University of Manchester

**Online Listing Keywords and Housing Market Dynamics: A Focus on the COVID-19 Shock and Housing Demand Change**

**Lee, Jieun;** **Lee, Kwan Ok**  
National University of Singapore, Singapore

MIT, United States of America

**Measuring Office Attendance during the COVID-19 Pandemic: Using Mobility Data to Quantify Local Trends and Characteristics**

**Sakuma, Makoto**<sup>1</sup>;  
**Matsuo, Kazushi**<sup>2</sup>;  
**Tsutsumi, Morito**<sup>3</sup>;  
**Imazeki, Toyokazu**<sup>4</sup>  
1: NLI Research Institute, Japan; 2: Graduate School of Systems and Information Engineering, University of Tsukuba, Japan; 3: Faculty of Engineering, Information and Systems, University of Tsukuba, Japan; 4: Sanko Estate Co., Ltd., Japan

**and Mortgage Choice Decisions in the UK**

**Koblyakova, Alla**<sup>1</sup>;  
**Tiwari, Piyush**<sup>2</sup>;  
**Hutchison, Norman**<sup>3</sup>  
1: Nottingham Trent University; 2: University of Melbourne; 3: University of Aberdeen

**High Temperature, Climate Change and Mortgage Termination Decisions**

**Riddiough, Timothy**; **Deng, Yongheng**; **Li, Teng**; **Han, Congyan**  
University of Wisconsin Madison-School of Business, United States of America

Date: Saturday, 06/Aug/2022

7:30am  
-  
9:30am

**ARV-5: AREUEA:  
Affordable  
Housing**  
Virtual location:  
**AREUEA-Virtual  
1**

Chair: **Boaz  
Abramson**, Stanford  
University, United  
States of America  
Discussant: **Dr. Xiao  
(Betty) Wang**, New  
York University, United  
States of America  
Discussant: **Boaz  
Abramson**, Stanford  
University, United  
States of America  
Discussant: **Dr. Lok  
Man Michelle Tong**,  
CAIA, LSE & Reading  
Alumni, Canada  
Discussant: **Dr.  
Hanchen Jiang**,  
University of North  
Texas, United States  
of America

**The Welfare  
Effects of  
Eviction and  
Homelessness  
Policies**

**Abramson, Boaz**  
Stanford University,  
United States of  
America

**Employment  
Dispersion and  
Housing  
Affordability:  
Evaluate the  
Opportunity  
Areas in  
London UK**

**Tong, Lok Man  
Michelle**  
CAIA, LSE &  
Reading Alumni,  
Canada

**Measuring the  
Value of Rent  
Stabilization  
and  
Understanding  
its Implications  
for Racial  
Inequality:  
Evidence from  
New York City**

**Jiang, Hanchen<sup>1</sup>;  
Chen, Ruoyu<sup>2</sup>;  
Quintero, Luis<sup>3</sup>**  
1: University of  
North Texas,  
United States of

**ARV-6: AREUEA:  
Urban Amenities**  
Virtual location:  
**AREUEA-Virtual  
2**

Chair: **Prof. Yan  
Zhang**, Loyola  
Marymount University,  
United States of  
America  
Discussant: **Hao Suo**,  
Central University of  
Finance and  
Economics, China,  
People's Republic of  
China  
Discussant: **Prof.  
Deyu Rao**, Hong  
Kong University of  
Science and  
Technology, Hong  
Kong S.A.R. (China)  
Discussant: **Prof. Yan  
Zhang**, Loyola  
Marymount University,  
United States of  
America  
Discussant: **Lorenzo  
Barisone**, Università  
della Svizzera Italiana,  
Switzerland

**The Role of  
Environmental  
Amenities in  
the Urban  
Economy:  
Evidence From  
a Spatial  
General  
Equilibrium  
Approach**

**Rao, Deyu**  
Hong Kong  
University of  
Science and  
Technology

**Do Local  
Government  
Officials Tunnel  
Public Goods  
to Corporations  
in China?  
Evidence from  
Overall Subway  
Land Auctions  
(2008--2017)**

**Zhang, Julian<sup>1</sup>;  
Wang, Shiyu<sup>2</sup>**  
1: Loyola  
Marymount  
University, United  
States of America;  
2: Soochow  
University, China

**Traffic  
Exposure and  
Income Sorting**

**ARV-7: AREUEA:  
ESG**  
Virtual location:  
**AREUEA-Virtual  
3**

Chair: **Dr. Avis  
Devine**, Schulich  
School of Business,  
York University,  
Canada  
Discussant: **Dr.  
Xudong An**, Federal  
Reserve Bank of  
Philadelphia, United  
States of America  
Discussant: **Dr. Avis  
Devine**, Schulich  
School of Business,  
York University,  
Canada  
Discussant: **Dr.  
Edward Seiler**,  
Mortgage Bankers  
Association, United  
States of America  
Discussant: **Dr.  
Dongxiao Niu**,  
Tsinghua University,  
China, People's  
Republic of

**From Wall  
Street to Main  
Street: How  
Corporate  
Diversity  
Shapes Cities**

**Devine, Avis<sup>1</sup>;  
Jolin, Isabelle<sup>2</sup>;  
Kok, Nils<sup>3</sup>;  
Yonder, Erkan<sup>2</sup>**

1: Schulich School  
of Business, York  
University,  
Canada; 2: John  
Molson School of  
Business,  
Concordia  
University,  
Canada; 3:  
Department of  
Finance,  
Maastricht  
University, The  
Netherlands

**Who Owns  
Climate Risk in  
the U.S. Real  
Estate Market?**

**Woodwell, Jamie;  
Fratantoni, Mike;  
Seiler, Edward**  
Mortgage Bankers  
Association, United  
States of America

**Quantifying the  
Impacts of  
Climate Shocks**

**ARV-8: AREUEA:  
Homeownership**  
Virtual location:  
**AREUEA-Virtual 4**

Chair: **Prof. Gregor  
Schubert**, UCLA  
Anderson, United States  
of America  
Discussant: **Prof.  
Gregor Schubert**,  
UCLA Anderson, United  
States of America  
Discussant: **Prof. Chao  
Ma**, Xiamen University,  
China, People's  
Republic of  
Discussant: **Dr. Yi Fan**,  
National University of  
Singapore, Singapore  
Discussant: **Prof. Jaime  
Luque**, ESCP Business  
School, Spain

**Housing-Market  
Interventions and  
Entrepreneurship**

**Ma, Chao<sup>1</sup>; Zhang,  
Shuoxun<sup>2</sup>**  
1: Xiamen  
University, China,  
People's Republic of;  
2: Sichuan  
University, China,  
People's Republic of

**The Role of  
Consumption in  
Marriage  
Commitment:  
Evidence from  
Singapore's  
Build-to-Order  
Program**

**Agarwal, Sumit<sup>1</sup>;  
Fan, Yi<sup>1</sup>; Qian,  
Wenlan<sup>1,2</sup>; Sing,  
Tien Foo<sup>1</sup>**  
1: National  
University of  
Singapore,  
Singapore; 2:  
University of Hong  
Kong

**Credit Scoring  
Technologies  
and the Mortgage  
Credit Supply  
Boom**

**Luque, Jaime<sup>1</sup>;  
Riddiough,  
Timothy<sup>2</sup>**  
1: ESCP Business  
School, Spain; 2:  
University of  
Wisconsin Madison-  
School of Business

America; 2: George Washington University; 3: Johns Hopkins University

### Housing Market Segmentation

**Wang, Xiao {Betty}**

New York University, United States of America

**Barisone, Lorenzo<sup>1,2</sup>**

1: Università della Svizzera Italiana, Switzerland; 2: Office of Urban Statistics - City of Lugano, Switzerland

### Who Benefits from Water Quality Control? Environmental Regulation, Housing Wealth, and Consumption Inequality

**Du, Rui<sup>1</sup>; Sun, Weizeng<sup>2</sup>; Suo, Hao<sup>2</sup>**

1: Department of Economics, Oklahoma State University; 2: School of Economics, Central University of Finance and Economics

### in Commercial Real Estate Markets

**Holtermans, Rogier<sup>1</sup>; Niu, Dongxiao<sup>2</sup>; Zheng, Siqi<sup>3</sup>**

1: University of Guelph; 2: Tsinghua University; 3: MIT

### THE ROLE OF SOCIAL CAPITAL IN CONSUMER CREDIT DECISIONS

**An, Xudong<sup>1</sup>; Ghoul, Sadok El<sup>2</sup>; Guedhami, Omrane<sup>3</sup>; Levine, Ross<sup>4</sup>; Roman, Raluca<sup>1</sup>**

1: Federal Reserve Bank of Philadelphia, United States of America; 2: University of Alberta; 3: University of South Carolina; 4: University of California, Berkeley

### The Housing Market Impact of Immigrant Preferences for Homeownership

**Schubert, Gregor<sup>1</sup>; Gorback, Caitlin<sup>2</sup>**

1: UCLA Anderson, United States of America; 2: UT Austin McCombs, United States of America

10:00am - 12:00pm

### AST-7: AsRES: Affordable Housing and Policies

Location: **Hitotsubashi 1**

Chair: **Prof. Soon Mahn Park**, Myonji University, Korea, Republic of (South Korea)  
Discussant: **Ming Chen**, The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)  
Discussant: **Prof. Soon Mahn Park**, Myonji University, Korea, Republic of (South Korea)  
Discussant: **Dr. Alla Koblyakova**, Nottingham Trent University, United Kingdom  
Discussant: **Dr. Jie Huang**, Southeast University, China, People's Republic of

### Public Perception of Universal Basic Housing : the Case of

### AST-8: AsRES: Japanese & Asia-Pacific REITs

Location:

**Hitotsubashi 2**

Chair: **Dr. Akira Ota**, Tokyo City University, Japan  
Discussant: **Dr. Koji Sawada**, Kurume University, Japan  
Discussant: **Dr. Akira Ota**, Tokyo City University, Japan  
Discussant: **Masayuki Ishihara**, Takara PAG Real Estate Advisory Ltd, Japan  
Discussant: **Dr. Hainan Sheng**, University of Missouri - St. Louis, United States of America

### A Study on the Characteristics of Voluntary Disclosure in J-REIT Prospectuses for Seasoned Equity Offerings

**Ota, Akira<sup>1</sup>; Saeki, Masahito<sup>2</sup>**

### ART-7: AREUEA: Information and Transactions

Location:

**Hitotsubashi 4**

Chair: **Prof. Miki Seko**, Musashino University, Japan  
Discussant: **Dr. Tingyu Zhou**, Florida State University, United States of America  
Discussant: **Prof. Danny Ben-Shahar**, Tel Aviv University, Israel  
Discussant: **Dr. Chris Cunningham**, Federal Reserve Bank of Atlanta, United States of America  
Discussant: **Hiroaki Niikura**, Musashino University, Japan

### Zero Price Effect and Consumer Welfare: Evidence from Online Classified Home Service

**Ash, David; Ben-Shahar, Danny**

### ART-8: AREUEA: REITs

Location:

**Hitotsubashi 5**

Chair: **Dr. Bing Zhu**, Technische Universität München, Germany  
Discussant: **Sedat Ogeturk**, Toronto Metropolitan University, Canada  
Discussant: **Dr. Chongyu Wang**, University of Hong Kong, Canada  
Discussant: **Dr. Bing Zhu**, Technische Universität München, Germany

### Granular Property Shocks and Commercial Real Estate Returns

**Ling, David<sup>1</sup>; Wang, Chongyu<sup>2</sup>; Zhou, Tingyu<sup>3</sup>**

1: University of Florida; 2: University of Hong Kong; 3: Florida State University

### ART-9: AREUEA: Residential Real Estate

Location:

**Hitotsubashi 6**

Chair: **Prof. Sean Wilkoff**, University of Nevada Reno, United States of America  
Discussant: **Changwei Zhan**, National University of Singapore, Singapore  
Discussant: **Prof. Sean Wilkoff**, University of Nevada Reno, United States of America  
Discussant: **Dr. Masaki Mori**, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland  
Discussant: **Prabath Suranga Morawakage**, Griffith University, Australia, Australia

### Amazon is Coming to Town: Information and

### ART-10: AREUEA: Housing Cost and Supply

Location:

**Hitotsubashi 7**

Chair: **Prof. Tsur Somerville**, UBC, Canada  
Discussant: **Hsi-Ling Liao**, New York University, United States of America  
Discussant: **Dr. Carlos Hurtado**, University of Richmond, United States of America  
Discussant: **Prof. Tsur Somerville**, UBC, Canada

### Supply and Demand Responses to a Tax on Rental Housing: Evidence from Iran

**Hurtado, Carlos<sup>1</sup>; Albouy, David<sup>2</sup>; Nafari, Kaveh<sup>3</sup>**

1: University of Richmond, United States of America; 2: University of

## Gyeonggi Province

**Park, Soon Mahn<sup>1</sup>; Kim, Jin-Yoo<sup>2</sup>**

1: Myonji University, Korea, Republic of Korea (South Korea); 2: Kyonggi University, Republic of Korea (South Korea)

## How much unaffordable dwelling can I afford?

### Evidence from the Israeli Housing Market

**Fleishman, Larisa<sup>1</sup>; Sayag, Doron<sup>1</sup>; Koblyakova, Alla<sup>2</sup>**

1: Central Statistical Bureau of Israel; 2: Nottingham Trent University

## China's New Affordable Housing REITs Initiative, a Case Study of Nanjing

**Huang, Jie<sup>1</sup>; Zhang, Zhekal<sup>2</sup>; Xiahou, Xiaer<sup>1</sup>; Li, Kang<sup>1</sup>; Ji, Min<sup>3</sup>**

1: Southeast University, China, People's Republic of; 2: Nanjing Audit University; 3: Real Estate Institute of Nanjing

## Macroprudential policy and property markets:

### Evidence from Hong Kong

**Fan, Ying; Chen, Ming**

The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

## Takahashi, Hiroshi<sup>3</sup>

1: Tokyo City University, Japan; 2: Mori Hamada & Matsumoto, Japan; 3: Keio University, Japan

## On the analysis of J-REIT share repurchases

**Ishihara, Masayuki**

Takara PAG Real Estate Advisory Ltd, Japan

## Short Sales, Short Risk, and Return

### Predictability in Asia-Pacific Real Estate Markets

**Cashman, George D.<sup>1</sup>; Harrison, David M.<sup>2</sup>; Sheng, Hainan<sup>3</sup>**

1: Marquette University, USA; 2: University of Central Florida, USA; 3: University of Missouri - St. Louis, USA

## Another cause of REIT's price discovery arising from REIT's real estate investment process — verification with dynamic panel analysis-

**Sawada, Koji**

Kurume University, Japan

Tel Aviv University, Israel

## The Good, the Bad and the Ordinary: Estimating Agency Value-Added using Real Estate Transactions

**Cunningham, Chris<sup>2</sup>; Gerardi, Kristopher<sup>2</sup>; Shen, Lily<sup>1</sup>**

1: Clemson University, United States of America; 2: Federal Reserve Bank of Atlanta

## The Effect of Information Disclosure on Price

### Dispersion and the Time-on-Market:

### Evidence from the Housing Market

**Naoi, Michio<sup>1</sup>; Niikura, Hiroaki<sup>2</sup>; Seko, Miki<sup>2</sup>**

1: Keio University, Japan; 2: Musashino University, Japan

## Loss Aversion and Focal Point Bias: Empirical Evidence

**Ross, Stephen<sup>1</sup>; Zhou, Tingyu<sup>2</sup>**

1: National Bureau of Economic Research & University of Connecticut; 2: Florida State University, United States of America

## Does Putting All Your Eggs in One Basket Add Value? The Case of a Spatial Concentration of Same Industry Firms

**Liu, Crocker<sup>3</sup>; Zheng, Chen<sup>2</sup>; Zhu, Bing<sup>1</sup>**

1: Technische Universität München, Germany; 2: University of Reading; 3: Cornell University

## An Efficient Markets Exploration into Economic Efficiency Measures: A Data Envelopment Analysis on Canadian REITs

**Ogeturk, Sedat; Tirtiroglu, Dogan; Hernandez, Tony**  
Toronto Metropolitan University, Canada

## Housing Market Efficiency

**Wilkoff, Sean<sup>1</sup>; Yoshida, Jiro<sup>2</sup>; Chen, Yifan<sup>2</sup>**

1: University of Nevada Reno, United States of America; 2: Pennsylvania State University

## Local Determinants of Herding and Reverse Herding Behaviour in US Housing Markets

**Pollock, Matthew<sup>1</sup>; Mori, Masaki<sup>2</sup>; Wu, Yi<sup>1</sup>**

1: University of Reading, United Kingdom; 2: EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland

## A Win-Win Partnership for Affordable Housing Solutions by Connecting Responsible Investors, Housing Associations, and Government

**Morawakage, Prabath Suranga;**

**Earl, George; Roca, Eduardo; Liu, Benjamin; Omura, Akihiro**  
Department of Accounting, Finance, and Economics, Griffith Business School, Griffith University, Australia

## Pricing and Learning of Developers in the Presale Housing Market

Illinois, United States of America; 3: Deloitte, United States of America

## Taxing Vacancy: Effects on Affordability and Rental Housing Supply

**Somerville, Tsur<sup>1</sup>; Wetzell, Jake<sup>2</sup>**

1: UBC, Canada; 2: Stada Analytics

## The Effect of Zoning Regulations on Local Housing Supply and Demand: Evidence from New York City

**Liao, Hsi-Ling**  
New York University, United States of America

12:00pm  
-  
1:00pm  
1:00pm  
-  
3:00pm

**Lunch-2: Lunch-2**

**ASV-1: AsRES: Real Estate Investment**

Virtual location: **AsRES-Virtual 1**  
Chair: **Prof. Song Shi**, University of Technology Sydney, Australia  
Discussant: **Dr. Monsurat Ayojimi Salami**, Ankara University, Turkey, Turkey  
Discussant: **Sibongile Zwane**, Wits University, South Africa  
Discussant: **Bingyang Ye**, UTS, Australia  
Discussant: **Prof. Song Shi**, University of Technology Sydney, Australia

**Herding Volatility Patterns in Bonds, Equities and Listed Real Estate Markets**

**Zwane, Sibongile**  
Wits University, South Africa

**Diversification in Real Estate Asset Pricing: Evidence from Listed A-REITs**

**Ye, Bingyang; Shi, Song; Scheule, Harry**  
University of Technology Sydney, Australia

**Co-movements and volatility spillovers in Turkey's real estate prices and capital market**

**Salami, Monsurat Ayojimi; Tanrivermis, Harun; Turel, Tefvik**  
Ankara University, Turkey, Turkey

**Designing mortgage contracts for financial resilience in mortgage lending**

**Mai, Chung; Scheule, Harald**  
The University of Technology Sydney, Australia

3:30pm  
-  
5:30pm

**ASV-4: AsRES: Commercial Real Estate Investment**

Virtual location: **AsRES-Virtual 1**  
Chair: **Sandy Padilla**, CBRE Investment Management, Australia  
Discussant: **Sandy Padilla**, CBRE Investment Management, Australia  
Discussant: **Lingshan Xie**, University College London, United Kingdom

**ASV-2: AsRES: Housing Price Analysis**

Virtual location: **AsRES-Virtual 2**  
Chair: **Prof. Weida Kuang**, Business School, Renmin University of China, China, People's Republic of  
Discussant: **Dr. Ti-Ching Peng**, National Taipei University, Taiwan  
Discussant: **Prof. Jinwon Kim**, Sogang University, Korea, Republic of (South Korea)  
Discussant: **Yiqi Huang**, Renmin University of China, China, People's Republic of

**The effect of demographic changes on house prices: A macro-scale analysis in Japan**

**Peng, Ti-Ching**  
Department of Real Estate and Built Environment, National Taipei University, Taiwan

**What flattened the house-price gradient? The role of work-from-home and decreased commuting cost**

**Kim, Jinwon<sup>1</sup>; Long, Dede<sup>2</sup>**  
1: Sogang University, Seoul, South Korea;  
2: California State University, Long Beach

**Does home seller marriage matter? Evidence from China's housing resale market**

**Kuang, Weida; Huang, Yiqi**  
Renmin University of China, China, People's Republic of

**Private Rental Housing Affordability in Malaysia: The Tale of Three Races**

**Tu, Yong<sup>1</sup>; Poon, Wai Ching<sup>2</sup>; Wang, Yaopei<sup>1</sup>; Ng, Jason Wei Jian<sup>3</sup>; Murugasu, Thangarajah @ M. Thiyagarajan<sup>4</sup>; Rangel, Gary John<sup>5</sup>**  
1: National University of Singapore; 2: Universiti Teknologi PETRONAS; 3: Sunway University; 4: Monash University Malaysia; 5: Universiti Sains Malaysia

**ASV-5: AsRES: Institutional Issues of Housing Market**

Virtual location: **AsRES-Virtual 2**  
Chair: **Prof. Shinichiro Iwata**, Kanagawa University, Japan  
Discussant: **Dr. Yehua Huang**, Renmin University of China, China, People's Republic of  
Discussant: **Qiyao Zhou**, University of Maryland, United States of America

**Agarwal, Sumit; Qin, Yu; Zhan, Changwei**  
NUS Business School, National University of Singapore, Singapore

**ASV-3: AsRES: Urban Planning in Aging Society**

Virtual location: **AsRES-Virtual 3**  
Chair: **Prof. Takako Idee**, Seikei University, Japan  
Discussant: **Daikun Wang**, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Jinyi Xiao**, Tsinghua University, China, People's Republic of  
Discussant: **Yaopei Wang**, National university of Singapore, China, People's Republic of  
Discussant: **Prof. Takako Idee**, Seikei University, Japan

**The Status Quos and Causes of the Synchronous Aging of Population and Communities in Urban China**

**Xiao, Jinyi**  
Tsinghua University, China, People's Republic of

**Ageing in Place and Urban Planning**

**Tu, Yong; Wang, Yaopei**  
National university of Singapore

**Housing Affordability and Donut Effect in England and Japan**

**Idee, Takako<sup>1</sup>; Kurahashi, Toru<sup>2</sup>**  
1: Seikei University, Japan; 2: Dokkyo Univrsity, Japan

**Short-Term Measures in Long-Term Housing Policy: Lessons from Transitional Housing Programs in Hong Kong**

**Wang, Daikun<sup>1</sup>; Huang, Yaoxuan<sup>2</sup>; Li, Victor, Jing<sup>1,2</sup>**  
1: Department of Geography and Resource Management, The Chinese University of Hong Kong; 2: Institute of Future Cities, The Chinese University of Hong Kong

**ASV-6: AsRES: Evaluation Method of Real Estate**

Virtual location: **AsRES-Virtual 3**  
Chair: **Dr. Nikolai Trifonov**, Council of Valuers' Associations of Eurasia, Belarus  
Discussant: **Syeda Marjia Hossain**, University of Reading, Uzbekistan  
Discussant: **Dr. Nikolai Trifonov**, Council of Valuers' Associations of Eurasia, Belarus  
Discussant: **Aida Julia Aminuddin**,



Discussant: **Michael Craig Lindsay**, Macquarie University, Australia

**Work from Home and Commercial Real Estate – Evidence from Stock Markets**

**Milcheva, Stanimira; Xie, Lingshan**  
University College London, United Kingdom

Discussant: **Jiangnan Zeng**, University of Pittsburgh, United States of America

**Under control? Price ceiling, misallocation, and inequality: Evidence from the housing market in Shanghai**

**Zhou, Qiyao**  
University of Maryland, United States of America

UNIVERSITI TEKNOLOGI MALAYSIA, Malaysia  
Discussant: **Dr. Jiayu Zhang**, Harbin Institute of Technology, China, People's Republic of

**Build-up Method for Calculating of Discount Rate: Elaboration**

**Trifonov, Nikolai**  
Council of Valuers' Associations of Eurasia, Belarus

**Real options in real estate systematic literature review**

**Lindsay, Michael Craig**  
Macquarie University, Australia

**Housing market regulations and spatial inequality**

**Zeng, Jiangnan**  
University of Pittsburgh, United States of America

**A NEURAL NETWORK FOR FORECASTING HOUSE PRICE INDEX**

**Aminuddin, Aida Julia; Adi Maimun, Nurul Hana**  
UNIVERSITI TEKNOLOGI MALAYSIA, Malaysia

**Analyzing the performance of Green Star office buildings in Australia**

**Padilla, Sandy; Taylor, Shane; Theebe, Marcel; Boing, Rens**  
CBRE Investment Management

**Credit Risk of Political Incentives: Evidence from a Regression Discontinuity Design**

**Huang, Yehua; Kuang, Weida; Zhao, Daxuan**  
Department of Finance, School of Business, Renmin University of China, People's Republic of China

**Evaluation and promotion strategy of urban resilience : Based on Trio Spaces**

**Zhang, Jiayu; Yang, Xiaodong**  
Harbin Institute of Technology, China

**UK commercial real estate valuation practice: does it now build in sustainability considerations?**

**Hossain, Syeda Marjia; van de Wetering, Dr. Jorn; Devaney, Dr. Steven; Sayce, Prof. Sarah**  
University of Reading, United Kingdom

6:00pm  
-  
8:00pm

Dinner-2: Gala Dinner at Josui Kaikan

**Date: Sunday, 07/Aug/2022**

**7:30am**

**ARV-9: AREUEA: House Prices and Transactions**

**9:30am**

Virtual location: **AREUEA-Virtual 1**

Chair: **Yanting Wu**, Concordia University, Canada  
Discussant: **Yanting Wu**, Concordia University, Canada  
Discussant: **Prof. Qiang Li**, Deakin University, Australia  
Discussant: **Prof. Weida Kuang**, Business School, Renmin University of China, China, People's Republic of

**An Alternative Measure of Lockdown Cost: The Impact of COVID-19 Restrictions on the Housing Market**

**Liang, Jian<sup>1</sup>; Li, Qiang<sup>1</sup>; Lee, Chyi Lin<sup>2</sup>**

1: Deakin University, Australia;  
2: University of New South Wales

**Seeing is Believing: The Impact of Buyers' Onsite Viewing Activities on Housing Transactions**

**Hu, Maggie Rong<sup>1</sup>; Kuang, Weida<sup>2</sup>; Li, Xiaoyang<sup>3</sup>; Shi, Yang<sup>4</sup>**

1: The Chinese University of Hong Kong; 2: Renmin University of China; 3: Jinan University; 4: The University of Melbourne

**Conflicts of Interest and Agent Heterogeneity in Buyer Brokerage**

**Kryzanowski, Lawrence<sup>1</sup>; Wu, Yanting<sup>1</sup>; Zhou, Tingyu<sup>2</sup>**

1: Concordia University, Canada; 2: Florida State University, USA

**ARV-10: AREUEA: Residential Mortgages**

Virtual location: **AREUEA-Virtual 2**

Chair: **Dr. Raluca Roman**, Federal Reserve Bank of Philadelphia, United States of America  
Discussant: **Prof. Yuting Huang**, Capital University of Economics and Business, China, People's Republic of  
Discussant: **Dr. Egle Jakucionyte**, Bank of Lithuania, Lithuania  
Discussant: **Dr. Raluca Roman**, Federal Reserve Bank of Philadelphia, United States of America  
Discussant: **Kody Chinon Law**, Cornell University, United States of America

**Emergence of Subprime Lending in Minority Neighborhoods**

**Jakucionyte, Egle<sup>1,2</sup>; Singh, Swapnil<sup>1,3</sup>**

1: Bank of Lithuania, Lithuania;  
2: Vilnius University; 3: Kaunas University of Technology

**A Tale of Two Bailouts: Effects of TARP and PPP on Subprime Consumer Debt**

**Berger, Allen<sup>2</sup>; Epouhe, Onesime<sup>1</sup>; Roman, Raluca<sup>1</sup>**

1: Federal Reserve Bank of Philadelphia, United States of America; 2: University of South Carolina

**The Heterogeneity of Bank Responses to the Fintech Challenge**

**Law, Kody Chinon; Mislav, Nathan**

Cornell University, United States of America

**Disguised credit misallocation: Evidence from housing provident fund**

**Huang, Yuting<sup>1</sup>; Kuang, Weida<sup>2</sup>**

1: Capital University of Economics and Business; 2: School of Business, Renmin University

**ARV-11: AREUEA: Corporate Finance and Real Estate**

Virtual location: **AREUEA-Virtual 3**

Chair: **Prof. Brent W Ambrose**, Penn State University, United States of America  
Discussant: **Dr. David Hendrick Downs**, Virginia Commonwealth University, United States of America  
Discussant: **Prof. Sanket Korgaonkar**, University of Virginia, United States of America  
Discussant: **Shogo Sakabe**, Columbia University, Japan  
Discussant: **Prof. Brent W Ambrose**, Penn State University, United States of America

**The Agency Costs of (RMBS) Tranching**

**Korgaonkar, Sanket**

University of Virginia, United States of America

**Place-Based Policies and the Geography of Corporate Investment**

**LaPoint, Cameron<sup>1</sup>; Sakabe, Shogo<sup>2</sup>**

1: Yale University; 2: Columbia University

**Firm Location and the Value-Growth Premium**

**Ambrose, Brent W; Chen, Yifan; Simin, Tim**

Penn State University, United States of America

**Property Market Liquidity and the Choice between Secured and Unsecured Debt**

**Downs, David H.<sup>1</sup>; Zheng, Chen<sup>2</sup>; Zhu, Bing<sup>3</sup>**

1: Virginia Commonwealth University, United States of America; 2: University of Reading, UK; 3: Technical University of Munich, Germany

**ARV-12: AREUEA: Commercial Real Estate**

Virtual location: **AREUEA-Virtual 4**

Chair: **Dr. Brent Smith**, Virginia Commonwealth University, United States of America  
Discussant: **Dr. Brent Smith**, Virginia Commonwealth University, United States of America  
Discussant: **Dr. Prashant Das**, IIM Ahmedabad, India  
Discussant: **Mehdi Rasteh**, Concordia University, Canada  
Discussant: **Dr. Jianfeng Wu**, Fudan University, China, People's Republic of

**Do Investor Cliques Generate Superior Fund Performance? An Examination of Private Equity Real Estate Funds**

**Yu, Bobby<sup>2</sup>; Liu, Peng<sup>2</sup>; Das, Prashant<sup>1</sup>**

1: IIM Ahmedabad, India; 2: S.C. Johnson College of Business, Cornell University

**Unpledged Collateral and Distressed Asset Sales: Evidence from REIT Transactions**

**Demirci, Irem<sup>1</sup>; Rasteh, Mehdi<sup>2</sup>; Yonder, Erkan<sup>2</sup>**

1: Nova School of Business & Economics, Portugal; 2: Concordia University, Canada

**Heterogeneity in Effects of Place-Based Policy on Neighborhood Change: Evidence from Special Economic Zones in Urbanizing Shanghai**

**Bu, Nanyang<sup>2</sup>; Guo, Xiangyu<sup>1</sup>; Wu, Jianfeng<sup>1</sup>**

1: Fudan University, China, People's Republic of; 2: Shanghai University, China, People's Republic of

**Commercial Real Estate Brokers: The Artifact of Locational Advantage through Prominence and Reputation and its Impact on Market Pricing and Liquidity**



10:00am  
-  
12:00pm

**ASV-7: AsRES: Homeownership and Finance**

Virtual location: **AsRES-Virtual 1**

Chair: **Dr. Bing Zhu**, Technische Universität München, Germany  
Discussant: **Prof. Weida Kuang**, Business School, Renmin University of China, China, People's Republic of China  
Discussant: **Prof. Gaetano Lisi**, eCampus University, Italy  
Discussant: **Shotaro Watanabe**, Henley Business School, University of Reading, United Kingdom  
Discussant: **Noorame Mohd Foudzy**, University Malaya, Malaysia

**Homeownership, human capital and (un)employment: theoretical model and empirical evidence in Italy**

**Lisi, Gaetano**  
eCampus University, Italy

**Google Search and Risk of Strategic Default in the US Great Recession**

**Marcato, Gianluca<sup>1</sup>; Watanabe, Shotaro<sup>1</sup>; Zhu, Bing<sup>2</sup>**

1: Henley Business School, University of Reading, United Kingdom; 2: Department of Civil, Geo and Environmental Engineering, Technical University of Munich (TUM)

**Challenges and Factors Influencing Ability to Secure Home Financing among Potential First-Time House Buyers in Malaysia**

**Mohd Foudzy, Noorame; Said, Rosli; Mohd Anan, Yasmin**  
University Malaya, Malaysia

**Does Education Attainment Matter For Mortgage Risks?**

**Kuang, Weida; Yu, Jiawei**  
Business School, Renmin University of China, China, People's Republic of

**ASV-8: AsRES: Housing Market**

Virtual location: **AsRES-Virtual 2**

Chair: **Prof. Alexander David Rothenberg**, Syracuse University, United States of America  
Discussant: **Prof. Alexander David Rothenberg**, Syracuse University, United States of America  
Discussant: **Dr. Maruska Vizek**, Institute Of Economics Zagreb, Croatia  
Discussant: **Jun Qiu**, Renmin University of China, China, People's Republic of  
Discussant: **Dr. Dongxiao Niu**, Tsinghua University, China, People's Republic of

**SPATIAL SPILLOVERS OF TOURISM ACTIVITY ON HOUSING PRICES: THE CASE OF CROATIA**

**Vizek, Maruska<sup>1</sup>; Stojcic, Nebojsa<sup>2</sup>; Mikulic, Josip<sup>3</sup>**

1: Institute Of Economics Zagreb, Croatia; 2: University Of Dubrovnik, Croatia; 3: Faculty of Economics and Business, University of Zagreb, Croatia

**Will urban housing and rural land affect family reunion? Evidence from rural-urban migrant families in China**

**Qiu, Jun; Lv, Ping**  
Renmin University of China, China, People's Republic of

**The impact of human capital and housing supply on urban growth**

**Büchler, Simon<sup>1</sup>; Niu, Dongxiao<sup>2</sup>; Thompson, Anne Kinsella<sup>1</sup>; Zheng, Siqi<sup>1</sup>**

1: MIT Center for Real Estate; 2: Tsinghua University, China, People's Republic of

**Urban Sprawl and Social Capital: Evidence from Indonesian Cities**

**Civelli, Andrea<sup>1</sup>; Gaduh, Arya<sup>2</sup>; Rothenberg, Alexander D.<sup>3</sup>; Wang, Yao<sup>4</sup>**

1: University of Arkansas, Fayetteville, United States of America; 2: University of

**ASV-9: AsRES: Urban Amenities**

Virtual location: **AsRES-Virtual 3**

Chair: **Prof. Piyush Tiwari**, University of Melbourne, Australia  
Discussant: **Yanting Wu**, Concordia University, Canada  
Discussant: **Dr. Cheng Keat Tang**, Nanyang Technological University, Singapore  
Discussant: **Yaopei Wang**, National university of Singapore, China, People's Republic of  
Discussant: **Dr. Radoslaw Trojanek**, Poznań University of Economics and Business, Poland

**The cost of gun crime: evidence from Gun Offender Registry on housing values**

**Tang, Cheng Keat<sup>1</sup>; Le, Thao<sup>2</sup>**

1: Nanyang Technological University, Singapore; 2: Georgia State University, United States

**Road traffic noise and housing rent premium in the post Covid-19 pandemic era**

**Wang, Yaopei; Tu, Yong**

National university of Singapore

**The impact of noise pollution on the residential property market**

**Tanas, Justyna<sup>2</sup>; Trojanek, Radoslaw<sup>1</sup>**

1: Poznań University of Economics and Business, Poland; 2: WSB in Poznan

**Complaints Against Agents and Agent's Incentives: Evidence from Housing Transactions**

**Kryzanowski, Lawrence; Wu, Yanting**

Concordia University, Canada

**Smith, Brent<sup>1</sup>; DLima, Walter<sup>2</sup>**

1: Virginia Commonwealth University, United States of America; 2: Florida International University

**ASV-10: AsRES: Housing Market During COVID-19 Pandemic**

Virtual location: **AsRES-Virtual 4**

Chair: **Prof. Ming-Chi Chen**, National Chengchi University, Taiwan  
Discussant: **Belgin Akcay**, ANkara University, Turkey  
Discussant: **Dr. Fang-Ni Chu**, National Chengchi University, Taiwan  
Discussant: **Dr. Dongyuan Mu**, The University of Tokyo, China, People's Republic of  
Discussant: **Dr. Jing-Yi Chen**, National Taichung University of Science and Technology, Taiwan

**The Covid-19 Pandemic Shocks and the Housing Market**

**Chen, Ming-Chi; Chu, Fang-Ni**

National Chengchi University, Taiwan

**The impact of the COVID-19 Pandemic on Housing Price Gradient: Evidence from Beijing**

**Mu, Dongyuan**

The University of Tokyo, China, People's Republic of

**Fearless in the Face of the Pandemic? Effects of Joint Information Framing and Personality Traits on Reactions regarding Housing Purchase Decisions**

**Chen, Jing-Yi; Zhou, Xin-Yu; Zhang, Jia-Yun; Hong, Yi-Xuan; Kim, Young-Jin**  
National Taichung University of Science and Technology, Taiwan

**Revisiting the Relationship of Credit with House Price in the Covid -19 Pandemic Period**

**Akcay, Sariye Belgin<sup>1</sup>; Akyüz, Mert<sup>2</sup>**

12:00pm

-

1:00pm

1:00pm

-

3:00pm

Lunch-3: Lunch-3 (Your Own)

**ASV-11: AsRES: Housing and Macroeconomy**

Virtual location: **AsRES-Virtual 1**

Chair: **Dr. Pin-te Lin**, University of Reading, United Kingdom  
Discussant: **Prof. Seung Dong You**, Sangmyung University, Korea, Republic of (South Korea)  
Discussant: **Prof. Hyun-Soo Choi**, Korea Advanced Institute of Science and Technology, Korea, Republic of (South Korea)  
Discussant: **Prof. Zhengyi Zhou**, Shanghai University of Finance and Economics, China, People's Republic of  
Discussant: **Dr. Pin-te Lin**, University of Reading, United Kingdom

**Do macroeconomic factors matter in housing markets?**

**Lin, Pin-te**

University of Reading, United Kingdom

**Does house price co-movement facilitates labor migration? Evidence from China**

**Zhou, Zhengyi**

Shanghai University of Finance and Economics, China, People's Republic of

**Politicians' Asset Allocation and Economic Bill Proposals**

**Choi, Hyun-Soo<sup>1</sup>; Kim, Hugh Hoikwang<sup>2</sup>; Kim, Paul Youngwook<sup>1</sup>**

1: Korea Advanced Institute of Science and Technology, Korea, Republic of (South Korea); 2: Darla Moore School of Business, University of South Carolina

**Ex-owner-renters' Journey Back to Homeownership**

**You, Seung Dong<sup>1</sup>; Kim, Kyung-Hwan<sup>2</sup>**

1: Sangmyung University, Korea, Republic of (South Korea); 2: Sogang University,

Arkansas, Fayetteville, United States of America; 3: Syracuse University, United States of America; 4: Syracuse University, United States of America

**ASV-12: AsRES: Agglomerations, Interactions and Transmission Effects on Regional Economy**

Virtual location: **AsRES-Virtual 2**

Chair: **Prof. Siu Kei Wong**, University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Suiling Long**, Renmin University of China, China, People's Republic of  
Discussant: **Prof. Jing Yang**, California State University at Fullerton, United States of America  
Discussant: **Xin Lin**, Renmin University of China, China, People's Republic of  
Discussant: **Prof. Wen-Chi Liao**, National University of Singapore, Singapore

**Housing Transactions near Flips**

**Yang, Jing**

California State University at Fullerton, United States of America

**Will regional integration increase housing cost burden of urban residents: Evidence from China's Yangtze River Delta urban agglomerations**

**Lin, Xin<sup>1</sup>; Lv, Ping<sup>1</sup>; Wong, Siu Kei<sup>2</sup>**

1: Renmin University of China, China, People's Republic of China; 2: The University of Hong Kong, Hong Kong S.A.R. (China)

**Spatial Econometrics for Strategic Interactions in Sequential Auctions of Government Lands**

**Luo, Yilan<sup>2</sup>; Liao, Wen-Chi<sup>1</sup>**

1: Department of Real Estate, NUS Business School, National University of Singapore, Singapore; 2: School of Economics and Trade, Hunan University, Changsha, Hunan, China

**ASV-13: AsRES: Recent Trends in Real Estate Investment**

Virtual location: **AsRES-Virtual 3**

Chair: **Dr. Edward Chung-yim Yiu**, The University of Auckland Business School, New Zealand  
Discussant: **Dr. Edward Chung-yim Yiu**, The University of Auckland Business School, New Zealand  
Discussant: **Yang Shi**, The University of Melbourne, Australia  
Discussant: **Prof. Yang Yang**, Chinese University of Hong Kong, Hong Kong S.A.R. (China)

**The Effects of Gasoline Prices on Individual Travel Behavior**

**Xu, Zhengzheng; Yang, Yang**

Chinese University of Hong Kong, Hong Kong S.A.R. (China)

**An Institutional Analysis of ESG Ratings' Impact on REITs' Returns during COVID-19**

**Yiu, Edward Chung-yim<sup>1</sup>; Cheung, Ka Shing<sup>1</sup>; Newell, Graeme<sup>2</sup>**

1: The University of Auckland Business School, New Zealand; 2: School of Business, Western Sydney University, Sydney, Australia

**PropTech Interface Induced Bias and Housing Investments**

**Hu, Maggie Rong<sup>1</sup>; Kuang, Weida<sup>2</sup>; Li, Xiaoyang<sup>3</sup>; Shi, Yang<sup>4</sup>**

1: The Chinese University of Hong Kong; 2: Renmin University of China; 3: Jinan University; 4: The University of Melbourne

**Valuation of Ecosystem and Environmental Services: A Review of Traditional Valuation Approaches**

**Choong, Weng Wai**

1: Ankara University, Turkey; 2: Ankara Yıldırım Bayazit University

Korea, Republic of (South Korea)

3:30pm  
-  
5:30pm

**ASV-14: AsRES: Natural Environment and Real Estate Market**

Virtual location: **AsRES-Virtual 1**

Chair: **Prof. Takuya Ishino**, Kanazawa Seiryō University, Japan  
Discussant: **Dr. Jyoti Shukla**, University of Melbourne, Australia  
Discussant: **Prof. Piyush Tiwari**, University of Melbourne, Australia  
Discussant: **Dr. Qin Fan**, California State University, Fresno, United States of America  
Discussant: **Dr. Ervi Liusman**, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

**Wet Market – Convenience or Health Hazard?**

**Liusman, Ervi<sup>1</sup>; Chau, K.W.<sup>2</sup>; Wong, Y.L.<sup>2</sup>**

1: School of Hotel and Tourism Management, The Chinese University of Hong Kong, Hong Kong S.A.R. (China); 2: Department of Real Estate and Construction, The University of Hong Kong, Hong Kong S.A.R. (China)

**Groundwater Use and Housing Development**

**Fan, Qin<sup>1</sup>; Liang, Jason<sup>2</sup>**

1: Department of Economics, Craig School of Business, California State University, Fresno, United States of America; 2: Department of Agricultural Business, Jordan College of Agricultural Sciences and Technology, California State University, Fresno, United States of America

**Predicted sea level rise and property values: Evidence from Victoria, Australia**

**Tiwari, Piyush**

University of Melbourne, Australia

**Research on the transmission mechanism of housing wealth effect on Chinese residents' Consumption -- an analysis of intermediary effect based on chfs data**

**Long, Suiling; Lv, Ping**

Renmin University of China, China, People's Republic of

**ASV-15: AsRES: Urban Development**

Virtual location: **AsRES-Virtual 2**

Chair: **Prof. Junhwan Song**, Yamaguchi University, Japan  
Discussant: **Dr. Misaki Ueno**, Wakayama university, Japan  
Discussant: **Prof. Siu Kei Wong**, University of Hong Kong, Hong Kong S.A.R. (China)  
Discussant: **Prof. Changha Jin**, Hanyang University, Korea, Republic of (South Korea)  
Discussant: **Ying Hui Chiang**, National Chengchi University, Taiwan

**Ownership transfer and urban development: evidence from China's manufacturing M&As**

**Shi, Shuai<sup>1</sup>; Wong, Siu Kei<sup>1</sup>; Zheng, Chen<sup>2</sup>; Qiang, Wei<sup>3</sup>**

1: University of Hong Kong, Hong Kong S.A.R. (China); 2: University of Reading; 3: Chinese University of Hong Kong

**Innovation, regional growth, and housing price : Does housing price affect local innovation?**

**Jin, Changha; Wang, Ilbum; Kang, Imho**

Hanyang University, Korea, Republic of (South Korea)

**The Dilemma of solving urban housing problems through Urban land readjustment: The case of Tucheng, New Taipei City**

**Chiang, Ying Hui; Ding, Hsiu Yin**

National Chengchi University, Taiwan

**The influence of frequency of communication such as regular meetings between the Promotion**

Universiti Teknologi Malaysia, Malaysia

**ASV-16: AsRES: Political Economy and Housing Market**

Virtual location: **AsRES-Virtual 3**

Chair: **Dr. Fang-Ni Chu**, National Chengchi University, Taiwan  
Discussant: **Prof. Ming-Chi Chen**, National Chengchi University, Taiwan  
Discussant: **Enyuan Li**, Tsinghua University, China, People's Republic of  
Discussant: **Prof. Vsevolod Nikolaiev**, Kyiv National University of Construction and Architecture, Ukraine  
Discussant: **Prof. Song Shi**, University of Technology Sydney, Australia

**A Study on the Winner's Curse in Beijing Land Market**

**Li, Enyuan; Zhu, Enwei; Liu, Hongyu**

Tsinghua University, China, People's Republic of

**Changing property relations while investing in renovation of destroyed housing in Ukraine**

**Nikolaiev, Vsevolod; Shcherbyna, Andrii**

Kyiv National University of Construction and Architecture, Ukraine (Wroclaw University of Science and Technology, Poland)

**Has Chinese capital pushed up Australian house prices?**

**Shi, Song; Shi, Xunpeng**

University of Technology Sydney, Australia

**The Municipal Election and the Housing Market**

**Chu, Fang-Ni; Chen, Ming-Chi**

National Chengchi University, Taiwan

**Measuring Housing Well-being of Disaster Affected persons in Chennai (India)**

**Shukla, Jyoti; Tiwari, Piyush**  
University of Melbourne,  
Australia

**Corporation for Urban Renaissance and the local government on quality of community activities**

**Ueno, Misaki<sup>1</sup>; Izumiyama, Rui<sup>2</sup>; Yabutani, Yusuke<sup>3</sup>; Song, Junhwan<sup>4</sup>; Matsushita, Yoshihiro<sup>5</sup>; Nishiyama, Taizen<sup>1</sup>**

1: Wakayama University, Japan; 2: Nihon University, Japan; 3: University of Toyama, Japan; 4: Yamaguchi University, Japan; 5: International Development Consultants Co.,Ltd, Japan

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## ARV-1: AREUEA: House Prices

*Time:* Friday, 05/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 1

*Session Chair:* Shuang Zhu, Kansas State University, United States of America

*Session Discussant:* Yunqi Zhang, Nankai University, China, People's Republic of

*Session Discussant:* Adrian D. Lee, Deakin University, Australia

*Session Discussant:* Jing Yang, California State University at Fullerton, United States of America

*Session Discussant:* Shuang Zhu, Kansas State University, United States of America

### Who Gains from Housing Market Stimulus? Evidence from Housing Assistance Grants with Threshold Prices

Agarwal, Sumit<sup>1</sup>; Hu, Maggie<sup>2</sup>; Lee, Adrian D.<sup>3</sup>

<sup>1</sup>National University of Singapore; <sup>2</sup>Chinese University of Hong Kong; <sup>3</sup>Deakin University, Australia; [adrian.lee@deakin.edu.au](mailto:adrian.lee@deakin.edu.au)

This paper examines market implications of a housing assistance policy offering subsidies to buyers of new homes priced up to \$600,000 in Sydney. We find this policy causes a large degree of sales bunching just below \$600,000, over 8 times the counterfactual density. Policy affected homes are associated with 50% shorter time-on-market, 25% smaller area size, 57% higher chance of becoming rental properties in the long term, and especially an overpricing of \$4,800, offsetting up to 86% of received benefit. Overpricing is aggravated by opportunistic developers that strategically shift their focus to policy eligible homes. This study sheds light on the effectiveness and externalities of housing subsidies to improve homeownership.

### Productivity Shocks of Dominant Companies and Local Housing Markets

Yang, Jing; Staer, Arsenio; Nguyen, Thanh

California State University at Fullerton, United States of America; [jyang@fullerton.edu](mailto:jyang@fullerton.edu)

We extend the literature on the influence of firm-level characteristics on the housing markets, by exploring the association of dominant firms' productivity shocks with the local housing prices. Using a sample of all U.S. firms in COMPUSTAT during 1980-2017, we find that the MSA-level aggregate productivity shocks of dominant firms explain a significant portion of the local MSA's housing price changes, with other housing price determinants controlled. It takes about one year or more for the shocks to propagate through the local housing markets, making them a viable future housing price predictor. Productivity shock – housing price relation is stronger in areas with a more rigid housing supply and with tighter links to the local non-dominant industry peers, but is absent on a zipcode level indicating a geographically diffuse effect. These findings provide helpful insights for real estate practitioners and policymakers, especially in areas with a higher concentration of large companies.

### State Deficiency Laws, Borrower Price Protection, and Auction Sale Outcomes

Pace, R.Kelley<sup>2</sup>; Zhu, Shuang<sup>1</sup>

<sup>1</sup>Kansas State University, United States of America; <sup>2</sup>Louisiana State University, USA; [shuangzhu@ksu.edu](mailto:shuangzhu@ksu.edu)

The auction sale price plays a critical role in deficiency judgment, which is an important means to balance lender right and borrower protection. Empirical research

on auction sales, however, has been rare. This study investigates the impact of state

deficiency laws on auction sale prices. Using a cross-border discontinuity design and

contrasting an auction sale price to its own benchmark valuation, we document that

foreclosed properties are sold on average at a 10% higher auction price (relative to

its benchmark valuation) in recourse states than non-recourse states. More importantly, the effect exists only when deficiency judgments are likely to be pursued by

lenders. The results indicate that the fair valuation rule regulating deficiency judgments, despite its vagueness, helps motivate lenders to avoid very low valuations of

auctioned properties. The finding has implications on borrower protection, recovery of distressed housing markets, foreclosure law reform, and the perceived housing

market conditions.

### Alcohol Consumption and the Value of Community

Zhang, Xiaoyu<sup>1</sup>; Zhang, Yunqi<sup>2</sup>

<sup>1</sup>Sun Yat-Sen University; <sup>2</sup>Nankai University; [xiaoyuzhang@u.nus.edu](mailto:xiaoyuzhang@u.nus.edu)

This paper investigates the value of the access to alcohol consumption by examining the housing price change after a liquor ban catalyzed by an unexpected riot in Singapore. The ban restricts alcohol consumption in Liquor Control Zones, which have high social disorder risk, to a different extent than in areas outside them. Using properties 800 meters to two kilometers from the Liquor Control Zones as the reference group, we find that housing prices increased for houses within 800 meters from the Liquor Control Zones, but the change diminishes for the house in closed communities, or the condominiums. In contrast, the housing price change in the Liquor Control Zones is weak, which implies that the recreational role of alcohol consumption dominates other negative effects and offsets the decline in social disorder risk. Several alternative explanations are ruled out. The evidence suggests that the net effect of alcohol consumption is minimal, but the social disorder risk can affect housing price substantially.

## ARV-2: AREUEA: Real Estate and Macro Economy

Time: Friday, 05/Aug/2022: 7:30am - 9:30am · Virtual location: AREUEA-Virtual 2

Session Chair: Charles Ka Yui Leung, City University of Hong Kong, Hong Kong S.A.R. (China)

Session Discussant: Fengting Zhang, University of Reading, United Kingdom

Session Discussant: Charles Ka Yui Leung, City University of Hong Kong, Hong Kong S.A.R. (China)

Session Discussant: Zonghie Han, Daegu University, Korea, Republic of (South Korea)

Session Discussant: Hang Lai, University College London, United Kingdom

### Corporate Real Estate Holding and Stock Returns: International Evidence from Listed Companies

Ng, Joe Cho Yiu; Leung, Charles Ka Yui; Chen, Suikang

City University of Hong Kong, Hong Kong S.A.R. (China); [kyleung@cityu.edu.hk](mailto:kyleung@cityu.edu.hk)

This study examines the relationship between corporate real estate (CRE) holdings and stock returns before and after the Global Financial Crisis (GFC). We find that (1) the United States and the United Kingdom show a negative relationship before the GFC and positive after the GFC. (2) Firms that pay positive tax or have positive R&D investments are not systematically different from the full sample. This finding cannot support the "scarce capital" theory or the tax incentive explanation, but it is consistent with the "empire building" theory. After the GFC, financial constraints tightened, and both CRE holding and stock returns dropped. (3) European (excluding the United Kingdom) sample shows a positive relationship in the pre-crisis period. This finding is compatible with the "illiquidity premium" theory. However, the association becomes inconclusive in the post-crisis period. (3) The Japanese sample shows a negative association between CRE and stock returns in the pre-crisis period, like the United States and the United Kingdom. However, the relationship becomes statistically insignificant in the post-crisis period, consistent with the theory of financial constraint tightening after the GFC.

### Property Registration and Economic Growth in the Colonial Korea

Han, Zonghie

Daegu University, Korea, Republic of (South Korea); [zhan@daegu.ac.kr](mailto:zhan@daegu.ac.kr)

This study investigates the application of the representative property system of de Soto (2000) to Colonial Korea empirically, based on the theoretical approach of Han (2020). The number of property registration increased drastically after the completion of the Land Survey Project in 1918, alongside the mortgage number and bank loan balance. The test for structural change confirms it, and Johansen cointegration tests show that property registration, mortgage, bank loan and GDP are cointegrated with each other. One-way Granger causality is exhibited from property registration, mortgage, bank loans and companies to GDP, as well as from property registration to active commercial company and manufacturing output, moreover from mortgage to bank loan.

### Long-run Discount Rates: Evidence from UK Repeat Sales Housing

Lai, Hang; Milcheva, Stanimira

University College London, United Kingdom; [ucbqh07@ucl.ac.uk](mailto:ucbqh07@ucl.ac.uk)

This paper investigates the term structure of discount rates over the very long run, using the repeat-sales housing transactions and the unique housing contract of leaseholds in England and Wales. We estimate the price discounts and price appreciation discounts for 0-300 years leaseholds maturities relative to very long-run leaseholds and derive the implied discount rates. We apply hedonic and augmented repeat sales regression for our empirical analysis under various types of restrictions. We find the results support the declining discount rate schedule, implying the benefit of the far future should be discounted at very low rates. In addition, although the declining trend remains consistent, poor and rich region have a different reaction in terms of QE. Before QE, the difference in the average discount rate in the two regions is only 0.2%. It increases to 2.1% during QE, with households in the rich region applying a significantly low average discount rate of 1%, suggesting that monetary policy could affect households' preference of riskiness, especially households in the rich region.

### Does media political bias affect land price? Evidence from the Chinese land market

Marcato, Gianluca; Zhang, Fengting; Zheng, Chen

University of Reading, United Kingdom; [f.zhang@pgr.reading.ac.uk](mailto:f.zhang@pgr.reading.ac.uk)

This paper examines whether government-owned newspapers' political bias affects land prices in China. The media political bias represents media outlets' degree of acting as government mouthpieces. Political bias will distort newspapers' role as effective information intermediary and reflect government intervention. On one hand, information environment constructed by politically biased media will lack transparency and cause information asymmetry. Information asymmetry will cause low economic efficiency and distort transaction prices. We find that media political bias negatively affects residential and commercial land prices. Residential and commercial land investors are market-driven and aware of the transaction costs caused by political information environment. To protect benefits, they are unwilling to pay a high land price. On the other hand, industrial land investors react positively to media political bias. The media political bias can proxy for government intervention. Local governments have been crucial in promoting industrial development. Industrial land investors are aware of the benefits of government intervention, so they are willing to pay a higher price to gain industrial development opportunities. These results have important implications for understanding the relationship between the government information environment and capital flows. In particular, we examine the underlying channels from information dissemination efficiency, knowledge stock, and political connections.



## ARV-3: AREUEA: House Prices and Risk

Time: Friday, 05/Aug/2022: 7:30am - 9:30am · Virtual location: AREUEA-Virtual 3

Session Chair: Lily Shen, Clemson, United States of America

Session Discussant: Maggie Hu, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

Session Discussant: Nikodem Szumilo, University College London, United Kingdom

Session Discussant: Yaopei Wang, National university of Singapore, China, People's Republic of

Session Discussant: Walter D'Lima, Florida International University, United States of America

### Judge Dread: Court severity, repossession risk and demand in mortgage and housing markets.

Montebruno, Piero; Silva, Olmo; Szumilo, Nikodem

University College London, United Kingdom; [n.szumilo@ucl.ac.uk](mailto:n.szumilo@ucl.ac.uk)

We study the impact of borrower protection on mortgage and housing demand. We focus on variation in the likelihood that a house is repossessed – conditional on the mortgage being in arrears and taken to court – coming from heterogeneity in preferences of judges that adjudicate on repossession cases in England and Wales. We develop a simple theoretical framework that shows that too much borrower protection restricts credit supply, while not enough restricts credit demand. Market outcomes depend on which side dominates. To test the predictions of our model, we exploit exogenous spatial variation in repossession risk created by the boundaries of courts' catchment areas. In our setting, housing market characteristics, borrower attributes and mortgage rates do not change discontinuously across these boundaries – allowing us to isolate the causal effects of borrower protection. We find that less borrower protection decreases both mortgage sizes and house prices. This pattern suggests that judges in our sample are too strict and that demand determines market outcomes. Furthermore, we find that our measure of borrower protection does not react to market conditions – causing frictions in credit and housing markets.

### Mass rail transit and the landscape changes of neighborhood housing investment: Evidences from Singapore

Tu, Yong; Wang, Yaopei

National university of Singapore; [wangyp@nus.edu.sg](mailto:wangyp@nus.edu.sg)

Literature suggests that the properties in a neighborhood will become more investable if a new mass rail transit (MRT) station is open in or near the neighborhood. Multiple MRT line benefits the nearby residents by accessibility and release the traffic congestion. Thus, we suspect this will not only improve the price of housing units but change the landscape of housing market investment in long term. We introduce this concept into urban spatial economics and add a new attribute to look at housing market structure change. This paper combines the opening dates of the MRT stations of the Circle Line with housing transaction data from both public and private housing markets in Singapore to scrutinize how public mass rail transit development changes the spatial distribution of neighborhood investment attributes across the neighborhoods in two housing markets. Our conceptual framework is built on the model developed by Guo and Whitelaw (2006), subsequently extended by Han (2013), who uses the CAMP theory to study household finance equilibrium. The multistage Difference-in-Difference panel fixed effect model is adopted to calibrate the casual effect from the mass rail transit development to the spatial re-distribution of investment attributes across the neighborhoods in the Singapore housing markets.

### Risk Perception in Housing Markets: Evidence from a Fighter Jet Crash

D'Lima, Walter<sup>1</sup>; Komarek, Timothy<sup>2</sup>; Lopez, Luis<sup>3</sup>

<sup>1</sup>Florida International University; <sup>2</sup>Old Dominion University; <sup>3</sup>University of Illinois at Chicago; [wdlima@fiu.edu](mailto:wdlima@fiu.edu)

We use housing transactions near military bases in Virginia to examine the capitalization of jet accident risk in house prices. We find that properties in accident potential zones are listed and transact at a lower price than properties at further locations and the discount is more pronounced after a jet crash in the area. In addition, the discount is more pronounced among residential homes at the lower-end of the price distribution suggesting that buyer or seller sophistication may play a role as higher-priced market participants appear to price in the risk of a jet crash constantly irrespective of the recency of such an event. By focusing on a localized shock affecting well-delineated treatment zones that does not impose broader physical or economic externalities, we highlight the role of recency and how market participants behave after an extreme event.

### Tobin Tax Policy, Housing Speculation, and Property Market Dynamics

Agarwal, Sumit<sup>1</sup>; Chau, Kwong Wing<sup>2</sup>; Hu, Maggie Rong<sup>3</sup>; Wan, Wayne Xinwei<sup>4</sup>

<sup>1</sup>National University of Singapore; <sup>2</sup>The University of Hong Kong; <sup>3</sup>The Chinese University of Hong Kong; <sup>4</sup>University of Cambridge, United Kingdom; [maggiehu@cuhk.edu.hk](mailto:maggiehu@cuhk.edu.hk)

Hong Kong introduced a Tobin property tax—the Special Stamp Duty (SSD) Policy—in 2010, which substantially increased the selling costs of short-term property holders. This study examines the effectiveness of this Tobin property tax in curbing speculation and cooling down the market. We find that SSD effectively curtails short-term speculations and reduces flippers' (holding period less than 2 years) market presence, which fell from 23.2% in 2009 to 2.4% in 2011 and 0.9% in 2013. However, 1 year after implementing the tax, the housing price shows an upward trend of 12.64% and 15.76% in the primary and secondary markets, respectively, indicating a lack of a market cooling effect. We show that flippers strategically defer sales to circumvent SSD charges, resulting in the sharp bunching of urgent sales immediately after the lock-in period ends. Further, SSD effectively increases selling costs and prolongs potential sellers' holding periods, thereby significantly reducing liquidity and driving up prices in the secondary market. We also document an unintended externality on market dynamics: the unmet housing demand from the secondary market triggers a buying frenzy into the primary market, which increases the prices in both markets.



## ARV-4: AREUEA: Real Estate Development

*Time:* Friday, 05/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 4  
*Session Chair:* Alexander David Rothenberg, Syracuse University, United States of America  
*Session Discussant:* Alexander David Rothenberg, Syracuse University, United States of America  
*Session Discussant:* Sylvia He, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)  
*Session Discussant:* Rodrigo Martinez-Mazza, Uppsala University, Sweden  
*Session Discussant:* Nikita Kotsenko, Hebrew University, Israel

### Regional impact of rail network accessibility on residential property price: Modelling spatial heterogeneous capitalisation effects in Hong Kong

**He, Sylvia Ying**

The Chinese University of Hong Kong, Hong Kong S.A.R. (China); [sylviahe@cuhk.edu.hk](mailto:sylviahe@cuhk.edu.hk)

In this paper, we employed a gravity-based accessibility measure to capture the regional impact of rail lines using a cross-sectional analysis of 2001 and 2011 residential apartment data in Hong Kong and a difference-in-difference approach to estimate repeated sales transacted in both years. We used a three-level hierarchical estimation method that allowed the price effect to vary by submarket. The results indicated that the network accessibility of rail lines had a statistically significant capitalisation effect on property prices that varied across different submarkets. Although the three major new rail lines had a greater impact on the built environment in suburban areas, the elasticities in property price with regard to accessibility were still larger in urban areas in both 2001 and 2011. We also establish that the improvements in rail accessibility had a substantially greater effect on the changes in property price between 2001 and 2011 in several new town submarkets along the new lines. From a regional perspective, we conclude that the price effect of new transport infrastructure goes beyond the local catchment areas and call for urban policies that address housing affordability issues across different submarkets in the region and a re-examination of land value capture policies.

### Flood and Urban Density

**Martinez-Mazza, Rodrigo<sup>1,3</sup>; Magontier, Pierre<sup>2,3</sup>**

<sup>1</sup>Uppsala University, Sweden; <sup>2</sup>University of Bern (CRED); <sup>3</sup>Barcelona Institute of Economics (IEB); [pierre.magontier@cred.unibe.ch](mailto:pierre.magontier@cred.unibe.ch)

How do natural disasters affect the spatial distribution of urban development? To address this question, we combine the universe of buildings in Spain with historical floods data at the municipal level between 1975 and 2021. We show that floods lead to a permanent increase in urban development and more compact urban layouts using the recent difference-in-difference designs for staggered treatments. Development rates remain unaffected in areas close to floodplains or water bodies.

### Demand Uncertainty and Presale in Residential Development

**Kotsenko, Nikita**

Hebrew University, Israel; [nikita.kotsenko@mail.huji.ac.il](mailto:nikita.kotsenko@mail.huji.ac.il)

Presale of apartments may be an important tool for reducing developer risk or a symptom of demand side phenomena such as variation in the mean and variance of buyer valuations. I explain why existing research based on the ratio of presale to total project units is insufficient to address this question. To better separate demand and supply side phenomena, I implement a novel approach based on presale discounts in a rich dataset on the universe of presales and spot sales in Israel during 2008-2021. I find robust evidence that location specific demand uncertainty is a dominant factor in determining presale pricing and volume.

### Road Maintenance and Local Economic Development: Evidence from Indonesia's Highways

**Gertler, Paul J.<sup>1</sup>; Gonzalez-Navarro, Marco<sup>2</sup>; Gracner, Tadeja<sup>3</sup>; Rothenberg, Alexander David<sup>4</sup>**

<sup>1</sup>University of California, Berkeley, United States of America; <sup>2</sup>University of California, Berkeley, United States of America; <sup>3</sup>RAND Corporation, United States of America; <sup>4</sup>Syracuse University, United States of America; [adrothen@maxwell.syr.edu](mailto:adrothen@maxwell.syr.edu)

This paper estimates how road maintenance affects local economic development and welfare. We propose a new instrument for road quality driven by features of Indonesia's two-step budgeting process for allocating funding to different road authorities. We find that higher road quality allows manufacturers to create new jobs, leading to sector switching away from informal employment. Better roads increase household income, consumption, land values, and they reduce perishable goods prices. Using a simple model, we find that a 10 percent increase in road quality increases welfare by 2.5 percent, on average, with larger gains for poor households in non-urban districts.

## **AST-1: AsRES: Housing Cost, Supply, and Zoning**

*Time:* Friday, 05/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 1

*Session Chair:* Albert Saiz, MIT, United States of America

*Session Discussant:* Hsi-Ling Liao, New York University, United States of America

*Session Discussant:* Albert Saiz, MIT, United States of America

*Session Discussant:* Jun Hyung Kim, Myongji University, Korea, Republic of (South Korea)

*Session Discussant:* Minji Lee, Jeju National University, Korea, Republic of (South Korea)

### **Cracking the Zoning Code**

**Saiz, Albert**

MIT, United States of America; [saiz@mit.edu](mailto:saiz@mit.edu)

Land use regulations are of critical importance to housing and commercial real estate development. We use natural language processing techniques to analyze and distill the contents of more than 5,000 zoning codes in the United States. We first find a number of common topics in all codes, and estimate their relative frequency by municipality. We then use machine learning techniques to map the language in the codes to the Wharton Regulation indexes, in order to create an anti-development index. We similarly generate a new indicator of pro-density zoning (quality regulation) based on syntactic proximity to New Urbanist codes. We then use code-styles, anti-development language, and pro-density language indexes to explain a number of development outcomes using new housing permits.

### **What is the effect of the self occupancy rate of the apartment complex on the management cost?**

**Lee, Heon-Goo; Kim, Jun Hyung**

Myongji University, Korea, Republic of (South Korea); [209hglee@naver.com](mailto:209hglee@naver.com)

This thesis verified the influence of the self-occupancy rate of apartment complex on the management cost. The study subjects were 363 complexes subject to mandatory management in Gangnam-gu and Nowon-gu in Seoul as of 2019. As for the analysis method, regression analysis was performed after searching for variables utilizing the IAD framework used for analysis of common-pool resources (CPRs) management.

Long-term repair allowance and miscellaneous income were taken as variables of interest, along with the self-occupancy rate, which indicates the characteristics of the collective behavior of the occupants. The accumulated amount of long-term repair allowance and miscellaneous income reflects the results of decision-making by residents.

The results are as follows. The coefficient of self-residence rate was negative (-) at a 5% significant level. It was found that the higher the self-residence rate, the smaller the common management cost. There was a difference (0%, 1.4%) in the significance level of each regression analysis model for long-term repair allowance and miscellaneous income, but both coefficient values were positive (+). The more long-term repair allowance and miscellaneous income accumulated, the lower the common management expenses were.

### **The study on the burden of housing costs on households in South Korea**

**Lee, Minji; Jung, Suyeon**

Jeju National University, Korea, Republic of (South Korea); [minji0469@gmail.com](mailto:minji0469@gmail.com)

The rise in house prices in Korea has led to concerns about the burden of housing costs on households. The burden of housing costs is expected to increase more as interest rates and consumer prices have increased as well. A policy for relieving housing cost burdens must consider the characteristics of households paying housing costs that are more than 30% of their income. To this end, we will examine 9,956 households living in Seoul and Jeju based on the Korea Housing Survey 2019. Using the logit model, the study explores whether home-rental households pay more for housing than home-ownership households; whether households in metropolitan areas pay more for housing than non-metropolitan areas; and whether households with female headship pay more for housing than those headed by males. Particularly, since old-age poverty is very severe in Korea, this study will focus on elderly women living alone. In comparison with elderly men living alone, young adults, non-single person households, we will show how much higher the housing cost burden is for elderly women living alone is. The result is expected to give implications to policy makers in deciding which groups to target in implementing housing policy.

### **The Effect of Rezoning on Local Housing Supply and Demand: Evidence from New York City**

**Liao, Hsi-Ling**

New York University, United States of America; [hll271@nyu.edu](mailto:hll271@nyu.edu)

Many large, economically successful cities continue to face housing affordability challenges. Some local governments try to tackle this issue by relaxing land-use regulations and increasing the residential capacity of land that can be developed. This type of "upzoning" policy aims to increase housing supply and lower local rents and housing prices. However, upzoning can also create an amenity effect that attracts high-income households and leads to gentrification and higher housing prices. In this paper, I study the effect of 2004-2013 New York City upzoning on local housing supply, prices, rents, and residential mobility patterns using a difference-in-difference method. By exploiting the granularity of the data at the building level and the plausibly exogenous boundary of upzoned areas, I compare the upzoned areas and the areas slightly farther away from the boundary before and after upzoning. This paper also uses unique data with individual-level address history to examine the mobility patterns of in-migrants and incumbent residents. Specifically, I study how upzoning changes the characteristics of the in-migrants and the likelihood of minority residents being displaced to less desirable neighborhoods. Preliminary findings show that housing supply increased after upzoning, but there is also suggestive evidence of increased housing prices among condo properties.

## AST-2: AsRES: Urban Economics

Time: Friday, 05/Aug/2022: 10:00am - 12:00pm · Location: Hitotsubashi 2

Session Chair: Masatomo Suzuki, Hitotsubashi University, Japan

Session Discussant: Takafumi Kawakubo, LSE, United Kingdom

Session Discussant: Masatomo Suzuki, Hitotsubashi University, Japan

Session Discussant: Hai Feng Hu, Wenzao Ursuline University of Languages, Taiwan

Session Discussant: Christopher Alex Hooton, Meta, Israel

### Disamenity externalities of long-term vacant houses in a society without frequent foreclosures: the case of a depopulating city in the Tokyo metropolitan area

**Suzuki, Masatomo<sup>1</sup>; Hino, Kimihiro<sup>2</sup>; Muto, Sachio<sup>2</sup>**

<sup>1</sup>Hitotsubashi University, Japan; <sup>2</sup>The University of Tokyo, Japan; [suzuki.m@r.hit-u.ac.jp](mailto:suzuki.m@r.hit-u.ac.jp)

Employing parcel-level data on vacant houses in a depopulating city in the Tokyo metropolitan area, we provide evidence of negative externalities of long-term vacant houses that continue for several years. We find that the externality spills over to around 50 m and that one additional long-term vacant house within 50 m pushes the property transaction prices down by around 3%. We argue that the externalities come at least partly from the disamenity channel, since the externalities are not observed for vacancies that disappear within just one or two years. The externalities are observed from three years after the houses become vacant, which are to a large extent not put on the housing market, and the externalities diminish around the time the vacancies finally disappear. We also show that the externalities exist only in areas where nearby long-term vacant houses are not yet common since their existence stands out in those areas. The above results imply that reducing the number of long-term vacant houses will help mitigate disamenity in areas that have not yet experienced severe declines.

### The Effects of Urban Dream on the Population Dynamics in Megacities

**Hu, Hai Feng**

Wenzao Ursuline University of Languages, Taiwan; [harrishu@gmail.com](mailto:harrishu@gmail.com)

Urbanization might be an irreversible process in the civilized world, and the Rank/Size rule (Zipf's law) implies that the bigger the city, the more attractive the city. This research proposes that the attraction of metropolitan area partly comes from the individual's wishful thinking for big city. That is, they subjectively connect and overlap the images of "success of life" and "big city". This research adds the "urban dream" factor into the classical push-and-pull theory for the big city formation, and because the "urban dream" is nourished by poverty, this research indicates the intensity of urban dream is a decreasing function of human and economic development, thus the intensity of urban dream will be bigger in Asia, consequently the push-and-pull model with urban dream factor can explain the differences of population dynamics between Eastern and Western megacities.

### Current and Post-Pandemic Cities: A 30-Country Small Business Survey on Urban Markets and the COVID-19 Pandemic

**Hooton, Christopher Alex**

Meta; [chooton@fb.com](mailto:chooton@fb.com)

The onset of the COVID-19 pandemic drove an urgent effort by medical researchers to measure and understand the virus's impacts across society. Simultaneously, social science researchers also embarked on various efforts to identify potential areas of long-term economic and societal impacts while designing methods to measure new hypotheses on the post-COVID world. More than two years on from the start of the pandemic, the economic impacts are rightly starting to receive additional research as the virus potentially becomes endemic and new datasets are now ready for analysis. The goal of this paper is to link two areas of emerging research on a) the small and medium-sized (SMB) business impacts of the COVID-19 pandemic and b) the long-term economic restructuring that it may have on urban markets. By doing so, the paper provides clear insights on the current economic vitality of large urban markets and the future prospects of post-COVID cities through the experiences of SMBs. The paper achieves this goal through a large-scale survey of SMB leaders fielded in January 2022 in 30 countries and producing over 23,000 responses with geographical classifications of respondents according to their locations in a City, Suburb, Town, Village or Countryside, or Online Only.

### Supply Chain Dynamics and Resilience of the Economy During a Crisis

**Kawakubo, Takafumi<sup>1</sup>; Suzuki, Takafumi<sup>2</sup>**

<sup>1</sup>LSE, United Kingdom; <sup>2</sup>Aichi Shukutoku University, Japan; [t.kawakubo@lse.ac.uk](mailto:t.kawakubo@lse.ac.uk)

During a crisis, firms restructure their supply chains to minimize disruptions. The ability to restructure is the key for firms to be resilient against shocks. We focus on the Great East Japan Earthquake in 2011, which hit only a small subset of firms severely while the rest of firms did not have direct negative impacts. First, we looked at the change in non-disaster-hit firms' choice of trading partners, and found a sudden shift from firms inside the disaster area to those elsewhere. Second, we addressed if firms diversified or concentrated their supply chains in response to the disaster. The results show that firms overall diversified but at the same time geographically concentrated their supplier network. This was done through regionalization/localization of the network. Third, we study the impact of pre-disaster level of productivity on the ability to restructure the supply chains. The results show that more productive firms are more actively restructuring their transaction networks after the shock. This suggests an important factor behind their superior performance.

## AST-3: AsRES: Alternative Data and Computation

Time: Friday, 05/Aug/2022: 10:00am - 12:00pm · Location: Hitotsubashi 3

Session Chair: Masaki Mori, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Session Discussant: Young-Sun Song, Hanyang University, Korea, Republic of (South Korea)

Session Discussant: Masaki Mori, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

Session Discussant: Jihun Oh, Ulsan National Institute of Science and Technology (UNIST), Korea, Republic of (South Korea)

Session Discussant: Philip Kalikman, Syms School of Business, United States of America

### Chinese tourist demand to travel to Switzerland: Roles of media sentiments for the destination, competing destinations, and origin country

**Mori, Masaki<sup>1</sup>; Wu, Yi<sup>2</sup>; Li, Dongui<sup>3</sup>**

<sup>1</sup>EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland; <sup>2</sup>University of Reading; <sup>3</sup>Shenzhen University; [masaki.mori@ehl.ch](mailto:masaki.mori@ehl.ch)

This study examines the roles of media sentiments on Chinese tourists' demand to travel to Switzerland. We consider the effects of media sentiments for Switzerland (destination), competing destinations, and China (origin) by utilizing the innovative news database RavenPack. The initial results show that the media sentiment for Switzerland has a significant positive effect on Chinese tourists' arrivals in Switzerland and that this positive effect remains strongly significant even after controlling for the media sentiment for the competing destinations in the eurozone, the price competitiveness, and the travel cost. The results also suggest that the Chinese travelers visit more than one country in the neighboring area when they visit Switzerland, and thus, the media sentiment for the overall area is also important for their travel decisions. Finally, the results suggest that the Chinese tourists become sensitive to the media sentiment for travel destinations only when they are influenced by the negative media sentiment in their home country. The results of this study will provide important implications for the Swiss tourism industry in making public relations strategies effectively by understanding when and how such strategies should be implemented.

### Will differently framed media coverage on housing market issues affects perceptions of the issues?

**Oh, Jihun; Kim, Jeongseob**

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These days, we are exposed to enormous amounts of information via media, including various housing-related information. Nevertheless, little is known about how people respond to or be affected by media information. It has been widely known that information is a major ingredient that forms one's perception such as attitude, perspective, or emotion. Considering that, the link between exposure to media information about housing-related issues and people's perceptions on those issues is worthy of investigation. Here, this study suggests a hypothesis that there exists a tendency of confirmation bias when people are exposed to housing information. Marshall's theory of media exposure predicts that people tend to focus on not the messages in the information, but the frames revealed in the information. For example, people would pay more attention to whether their political preference matches the frames in the media information, rather than its truth. Accordingly, by employing a quasi-experimental survey design, this study aims to examine the tendency of confirmation bias occurring when people are exposed to media information on a certain housing issue that is differently framed. Understanding the relationship between media and housing consumers' perceptions would contribute to developing a basis for transparent and balanced housing information management system.

### Mortgage Default: A Heterogeneous-Agent Model

**Kalikman, Philip<sup>1</sup>; Scally, Joelle<sup>2</sup>**

<sup>1</sup>Syms School of Business, Yeshiva University, United States of America; <sup>2</sup>Federal Reserve Bank of New York; [philip@kalikman.com](mailto:philip@kalikman.com)

We introduce a loan-level model of mortgage default with heterogeneity in borrower characteristics and mortgage terms, including idiosyncratic penalties for default. Borrowers' penalties determine how closely their behavior hews to the predictions of the double-trigger or strategic models. The state space varies loan-to-loan based on all of the loan's, borrower's, property's, and neighborhood's idiosyncratic characteristics. We test the model on a high-performance computing cluster against real data drawn from linked databases with billions of observations of hundreds of simultaneous attributes. The model predicts defaults out-of-sample, fits cross-sectional characteristics of the distribution of mortgage performance, and classifies likelihood of default with high accuracy and better than all known benchmarks.

### Comparison between the Hedonic model and the Repeat Sales model for the Price Indices of Office Market in Seoul

**Song, Young-Sun; Lee, Chang-Moo**

Hanyang University, Korea, Republic of (South Korea); [youngsun\\_song@naver.com](mailto:youngsun_song@naver.com)

In Korea, the market information disclosure is quite limited and indicators for detailed diagnosis of market situation are not clear. In particular, compared to the housing market, the office market has significantly less stock and thus very little transaction frequency, making it difficult to estimate a stable price index using transaction cases.

In this study, in estimating the transaction based price index of Seoul office market, we tried to compare it using a Repeat sales model and a Hedonic model, respectively, the trend of detailed price fluctuations in the Seoul office market was to be confirmed. Due to the advantages and disadvantages of the Hedonic model and the Repeat sales model, different estimation results can be shown, and a model that can control the bias of variable selection and the influence of characteristic variables better was selected.

The estimation of the office market price index with fewer transactions is meaningful in terms of providing market information in more ways, and it is expected that it will be highly useful as a time correction for estimating the asset value corresponding to the denominator of the capitalization rate.

## ART-1: AREUEA: Policies and Regulations 1

*Time:* Friday, 05/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 4

*Session Chair:* Jeremy Moulton, UNC Chapel Hill, United States of America

*Session Discussant:* Jeremy Moulton, UNC Chapel Hill, United States of America

*Session Discussant:* Eren Aydin, Universität Hamburg, Germany

*Session Discussant:* David A Leather, Chapman University, United States of America

*Session Discussant:* Yusu Kim, University of Connecticut, United States of America

### Low-Emission Zones, Modes of Transport and House Prices: Evidence from Berlin's Commuter Belt

**Aydin, Eren<sup>1</sup>; Kürschner Rauck, Kathleen<sup>2</sup>**

<sup>1</sup>Universität Hamburg, Germany; <sup>2</sup>University of St. Gallen, Switzerland; [eren.aydin@uni-hamburg.de](mailto:eren.aydin@uni-hamburg.de)

We study the impact of a tightening of a private driving restriction in Germany's capital, the city of Berlin, on house prices in its affluent suburbs. Using geo-referenced data on train stations, motorway access points and offers of single-family houses for sale from Germany's leading online property broker ImmobilienScout24 in a spatially staggered DiD framework, we find evidence for sizeable price growth premia for houses located in walking distance of train stations that lie within 30 minutes commuting duration to Berlin main station. Property located in immediate vicinity (5 minutes walking distance) of train stations within 30 to 40 minutes commuting duration, however, face penalties. Our findings are of relevance for the design of public infrastructure planning policies that seek to accommodate and facilitate changes in local demands for alternative and more environmentally sustainable modes of transport induced by private driving restrictions.

### What's the Use? Land Use Uncertainty, Real Estate Prices, and the Redevelopment Option

**Leather, David A**

Chapman University, United States of America; [Leather@chapman.edu](mailto:Leather@chapman.edu)

We incorporate uncertainty surrounding future land-use restrictions to empirically assess the option value of redevelopment embedded in real estate prices for New York City (NYC) from 2003-2015. Using a two-stage estimation procedure, we interact predicted probabilities of land-use (re)zoning to either residential, commercial or manufacturing with an additional proxy for the property's redevelopment propensity. Over the period spanning 2003 to 2015, estimates of the average option value to redevelop in Manhattan and Brooklyn are 20% and 8.5% of total estimated property value, respectively. There is also evidence that manufacturing lots identified as likely to be rezoned by the model sell at an average premium of 50% per square foot. Lastly, we find evidence consistent with the hypothesis that the redevelopment option value is counter-cyclical.

### Impact of Property Assessment Frequency on Assessment Outcomes: Evidence from Virginia and New York

**Kim, Yusun<sup>1</sup>; Hou, Yilin<sup>2</sup>**

<sup>1</sup>University of Connecticut, United States of America; <sup>2</sup>Syracuse University, United States of America; [yusun.kim@uconn.edu](mailto:yusun.kim@uconn.edu)

Infrequent property assessment is commonly known to undermine the equity and efficiency of property taxes. This paper examines the effect of regular, short assessment cycles on assessment outcome, using two separate case studies of assessing jurisdictions in two representative states in the United States, Virginia and New York. This paper first tests the effect of reassessment lag on assessment uniformity using a sample of assessing jurisdictions in Virginia and instrumental variables approach. Then we analyze the relationship between the length of the reassessment cycle and assessment uniformity from a separate sample of New York's local assessing units, employing a parcel-level sales data and stacked difference-in-differences instrumental variables (DD IV) identification strategy. We find an average of 2% deterioration in assessment uniformity per additional year of skipping reassessment, relative to jurisdictions that reassess annually, in Virginia. We also find that a longer reassessment cycle leads to deterioration in assessment uniformity among towns and cities in New York. From an event study analysis using sub-groups of assessing jurisdictions in New York that ever committed to annual reassessments for multiple consecutive years, we find evidence of annual reassessment leading to improvement in assessment quality.

### When Do Property Taxes Matter? Tax Salience and Heterogeneous Policy Effects

**Gindelsky, Marina<sup>1</sup>; Moulton, Jeremy<sup>2</sup>; Wentland, Kelly<sup>3</sup>; Wentland, Scott<sup>1</sup>**

<sup>1</sup>U.S. Bureau of Economic Analysis; <sup>2</sup>UNC Chapel Hill, United States of America; <sup>3</sup>George Mason University, United States of America; [moulton@email.unc.edu](mailto:moulton@email.unc.edu)

Taxes create incentives; however, the potency of these incentives often depends on the magnitude and salience of the tax itself. We explore this issue in the context of property taxes, investigating whether market responses to changes in property tax policies vary with the magnitude and salience of these taxes more generally. Specifically, in the first part of our analysis, we exploit exogenous (state and local) changes to property tax exemptions across the United States to estimate their capitalization into property values and their effects on the mobility of the policies' targeted groups (e.g., seniors and veterans). We then use a unique national dataset linking Zillow's ZTRAX data to internal Census data from the American Community Survey (ACS) to measure property tax salience by comparing individual survey responses for how much households think they pay in property taxes to how much they actually pay based on municipal administrative records from ZTRAX. From this property-level data, we aggregate to local geographies (census tracts and counties) to identify areas where property tax salience is high and where it is low, allowing us to estimate the heterogeneous impact of property tax exemptions across this dimension.



## ART-2: AREUEA: Inequality and Intergenerational Issues

*Time:* Friday, 05/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 5  
*Session Chair:* Jiro Yoshida, The Pennsylvania State University, United States of America  
*Session Discussant:* Ying Fan, The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)  
*Session Discussant:* James Hansen, University of Melbourne, Australia  
*Session Discussant:* Takuya Ishino, Kanazawa Seiryu University, Japan  
*Session Discussant:* Kazuto Sumita, Toyo University, Japan

### How Do Homes Transfer Across the Income Distribution? The Role of Supply Constraints

**Hansen, James<sup>1</sup>; Rambaldi, Alicia<sup>2</sup>**

<sup>1</sup>The University of Melbourne, Australia; <sup>2</sup>The University of Queensland, Australia; [james.hansen@unimelb.edu.au](mailto:james.hansen@unimelb.edu.au)

We examine how supply constraints matter for housing affordability. Using housing transactions matched to buyer and seller income, we estimate filtering, whereby existing homes transfer across the income distribution as they age. Treating supply constraints as unobserved, we document significant upward filtering of homes of +0.3% to +0.4% per home-year, with buyers having higher income than sellers on average. However, there is considerable heterogeneity in these estimates. A change in local planning laws is used to identify the causal impact of regulatory supply constraints. Controlling for them, filter rates are close to zero or negative in line with theory. Low-income buyers (relative to the sellers) are more affected by supply constraints than high-income buyers.

### Intergenerational Correlation of Household Wealth: Evidence from the JHPS Second-Generation Supplement

**Naoi, Michio<sup>1</sup>; Seko, Miki<sup>2</sup>; Sumita, Kazuto<sup>3</sup>; Ishino, Takuya<sup>4</sup>**

<sup>1</sup>Keio University, Japan; <sup>2</sup>Musashino University; <sup>3</sup>Toyo University; <sup>4</sup>Kanazawa Seiryu University, Japan; [ishino@seiryu-u.ac.jp](mailto:ishino@seiryu-u.ac.jp)

This study investigates the intergenerational correlation of household wealth and its determinants using the Japan Household Panel Survey and its second-generation supplement. Our main empirical findings are as follows: (1) The marginal effect of parents' financial wealth on their children's wealth is about 0.10 to 0.13, (2) the intergenerational correlation of household wealth is partly, albeit to a lesser extent than previous findings, determined by children's education and income, and (3) the impact of parental wealth on homeownership among children is largely explained by direct wealth transfers across generations. The study also investigates the relationship between future inheritance/gifts and the economic status of the child generation, finding that (1) future inheritance/gifts of financial wealth are largely unrelated to the economic status of the child generation and that (2) future inheritance/gifts of housing are negatively correlated with the economic status of the child generation.

### Underutilized housing in aging society: How bequest motives and inheritance taxes impact housing choice

**Seko, Miki<sup>1</sup>; Sumita, Kazuto<sup>2</sup>; Yoshida, Jiro<sup>3</sup>**

<sup>1</sup>Musashino University, Japan; <sup>2</sup>Toyo University, Japan; <sup>3</sup>The Pennsylvania University, Japan; [sumita@toyo.jp](mailto:sumita@toyo.jp)

The housing stock is underutilized when households maintain unused rooms in occupied units. This study sheds light on elderly households' holding of excess rooms by focusing on how a bequest motive causes low mobility and early renovations for their heirs. Japanese household data show that excess rooms are more pronounced for non-moving elderly households that recently renovated their houses. The intention to bequeath housing makes moving less likely but capacity-increasing renovations more likely. Furthermore, the motive to bequeath housing is influenced by the inheritance-tax benefit of housing in addition to income, wealth, and better housing structures. Thus, the inheritance-tax benefit of housing unintentionally distorts housing choices and exacerbates a long-term underutilization problem.

### Offspring's Income Uncertainty and Dynastic Decisions: Evidence from Urban China

**Fan, Ying<sup>1</sup>; Wang, Yidi<sup>2</sup>; Yang, Zan<sup>2</sup>**

<sup>1</sup>The Hong Kong Polytechnic University; <sup>2</sup>Tsinghua University; [yingfan@polyu.edu.hk](mailto:yingfan@polyu.edu.hk)

This paper investigates the impact of offspring's income uncertainty on intergenerational decisions. We exploit the natural experiment of national college entrance examination (NCEE) reform in China, which significantly increases the uncertainty of households with students of compulsory education. Based on the comprehensive survey data from 2013 to 2019, we explore the impact of offspring's income uncertainty associated with NCEE reform on household consumption, housing demand, and financial asset allocation. We find that: 1) offspring's income uncertainty will significantly decrease household total consumption and shift consumption structures towards intergenerational inputs and housing purchases. 2) The excessive housing demand is attributed to the dynastic precautionary motivation, which poses heterogeneous effects according to the status quo bias in relation to the exposure to and perception of the reform. 3) The inclusion of illiquid housing assets tilts the portfolio of households toward safer and liquid financial assets, and such adjustment of asset allocation makes households financially worse off. 4) Such distortion impact could be corrected by lowering policy uncertainty and promoting financial literacy education.

## ART-3: AREUEA: Commercial Real Estate

*Time:* Friday, 05/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 6

*Session Chair:* Alexei Tchisty, Cornell University, United States of America

*Session Discussant:* Kazushi Matsuo, University of Tsukuba, Japan

*Session Discussant:* Sean Flynn, Cornell University, United States of America

*Session Discussant:* Alexei Tchisty, Cornell University, United States of America

*Session Discussant:* Takeaki Kariya, Nagoya University of Commerce and Business, Japan

### The Imitation Game: How Encouraging Renegotiation Makes Good Borrowers Bad

**Flynn, Sean<sup>1</sup>; Ghent, Andra<sup>2</sup>; Tchisty, Alexei<sup>3</sup>**

<sup>1</sup>Tulane University; <sup>2</sup>University of Utah; <sup>3</sup>Cornell University; [sflynn1@tulane.edu](mailto:sflynn1@tulane.edu)

We analyze whether CMBS borrowers behave opportunistically in order to obtain principal reductions (discounted payoffs, aka DPOs). Using a model in which special servicers cannot perfectly observe borrowers' quality, we show that high quality borrowers strategically request DPOs when renegotiation costs are low. Consistent with the model, we exploit a 2009 IRS regulation that reduces expected renegotiation costs and show that borrowers are more likely to transfer into special servicing following this regulation, particularly when expected servicer renegotiation capacity is high. Our results suggest substantial asymmetric information between borrowers and lenders, as well as adverse consequences of principal forgiveness.

### Quantifying the Factors Contributing to Inefficiencies in the Tokyo Office Market

**Matsuo, Kazushi<sup>1</sup>; Tsutsumi, Morito<sup>2</sup>; Imazeki, Toyokazu<sup>3</sup>**

<sup>1</sup>Graduate School of Systems and Information Engineering, University of Tsukuba, Japan.; <sup>2</sup>Faculty of Engineering, Information and Systems, University of Tsukuba, Japan.; <sup>3</sup>Commercial Property Research Institute, Inc., Japan.;

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Compared to the other real estate types, offices are often tied to long-term contracts, their supply is time-constrained, and significant information asymmetries exist, resulting in long delays in market adjustments to exogenous shocks. However, very few studies have quantitatively demonstrated this delay. This study aims to determine the variations in contracting and supply constraints that cause differences in the market dynamics. This is achieved by using data for different submarket grades with distinct characteristics. The analysis method uses a rent adjustment process model that captures the interactive dynamics of rents, vacancy rates, and stocks. The results of the analysis reveal that the highest-grade submarkets are the most inefficient. This is contrary to the existing studies, which show that the higher the grade, the more efficient the market is. Japan's unique lease contract system is found to be behind this result. High-grade office buildings are bound by longer-term contracts and supply constraints, thus making them more inefficient than the other grades in the market. By contrast, the results of this study suggest that market liquidity is greater for lower grade offices, as less binding contracting methods are the norm there.

### Tenant Portfolio Selection for Managing a Shopping Center

**Kariya, Takeaki<sup>1</sup>; Takada, Hideyuki<sup>2</sup>; Yamamura, Yoshiro<sup>3</sup>**

<sup>1</sup>Nagoya University of Commerce and Business, Japan; <sup>2</sup>Toho University; <sup>3</sup>Meiji University; [thekariya70@gmail.com](mailto:thekariya70@gmail.com)

Kariya, et.al.(2005) International Real Estate Review, formulated the problem of optimizing the NPV value of a shopping center (SC) by managing the two fundamental uncertainties of market lease rate and sales of each individual tenant in view of income return (after tenant replacement cost) and lower standard deviation risk of income, where the basic control methods are percentage-fixed rent ratio and tenant replacement (lease termination) rule in the lease contract. And using simulation approach, optimal solutions for the percentage rate and the termination rule are derived, under geometric discrete-diffusion models. Here, we consider the correlation of the sales of two tenants as tenant portfolio effect into the control problem and by simulation we will find some optimal rules for management, though some cases need to be distinguished. In practices, suppose a tenant will leave a specific space in six months later and the SC manager needs to find another tenant performing better. According to our simulation results, it will be better to select a new tenant whose sales growth rates are predicted to be large and negatively and largely correlated with those of the tenant who has the largest sales growth rates among the local tenants.

### Did PPP Loans Distort Business Competition? Evidence from the Hotel Industry.

**Steiner, Eva<sup>2</sup>; Tchisty, Alexei<sup>1</sup>**

<sup>1</sup>Cornell University, United States of America; <sup>2</sup>Penn State University, United States of America; [avt33@cornell.edu](mailto:avt33@cornell.edu)

We study the effects of PPP loans on business competition in the U.S. airport hotel industry. Older and less profitable hotels were more likely to apply for PPP loans. Hotels with active PPP loans reduced prices, boosting occupancy and profits compared to non-PPP competitors. Those differences were reversed once PPP loans expired. We rationalize our findings by introducing temporary cash subsidies into a model of monopolistic competition with differentiated products and heterogeneous production costs. We calculate that, for every dollar of PPP subsidies spent, PPP hotels earned 72.3 cents in extra profits and non PPP hotels lost 70.5 cents in aggregate.



## **AST-4: AsRES: Multiple Perspectives on Real Estate**

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 1  
*Session Chair:* Desmond Tsang, Chinese University of Hong Kong, Hong Kong S.A.R. (China)

*Session Discussant:* Shinichiro Iwata, Kanagawa University, Japan

*Session Discussant:* Desmond Tsang, Chinese University of Hong Kong, Hong Kong S.A.R. (China)

*Session Discussant:* Jungseok Seo, Ulsan National Institute of Science and Technology (UNIST), Korea, Republic of (South Korea)

*Session Discussant:* Siravich Chatrkaw, Thammasat, Thailand

### **Needed but not there: The relationship between firm location, corporate site visits, and stock price crash Risk**

**Chu, Xiaoling<sup>1</sup>; Lo, Kin<sup>2</sup>; Tsang, Desmond<sup>3</sup>**

<sup>1</sup>University of Hong Kong; <sup>2</sup>University of British Columbia; <sup>3</sup>Chinese University of Hong Kong; [Desmond.tsang@cuhk.edu.hk](mailto:Desmond.tsang@cuhk.edu.hk)

This study examines firm location, corporate site visits, and their impact on stock price crash risk. We show that firms located further away from financial centers are associated with fewer corporate site visits by institutional investors. However, these firms are also associated with a higher stock price crash risk, which could be mitigated by more corporate site visits. By contrast, firms located close to financial centers have a lower stock price crash risk but receive more frequent site visits. To mitigate endogeneity and better establish causality, we explore the rapid expansion of high-speed rail connections in China as a series of exogenous shocks and find that the opening of high-speed rail stations is followed by increased site visits and reduced stock price crash risk. We further establish the channel through which firm location and corporate site visits impact stock price crash risk via their effects on information asymmetry. Overall, our findings imply that corporate site visits facilitate information acquisition and monitoring by institutional investors, which are most needed for distant firms with a high level of information asymmetry. However, institutional investors conduct significantly fewer corporate site visits to firms located farther away due to higher travel costs to these locations.

### **The retail resilient characteristics in subway commercial district: A case of Seoul, South Korea**

**Seo, Jungseok; Kim, Jeongseob**

Ulsan National Institute of Science and Technology (UNIST), Korea, Republic of (South Korea); [tjwidthjr12@unist.ac.kr](mailto:tjwidthjr12@unist.ac.kr)

Commercial districts have been severely depressed after an outbreak of the COVID-19. The intensity of negative effects varies by characteristics of the commercial districts. For example, a commercial district nearby subway station has a large influx of population that has been more prone to COVID-19. Various distinctive commercial districts have been developed along with subway stations in Seoul, South Korea. In this regard, we have analyzed the variation of a recovery process in Seoul's commercial districts nearby subway stations following the outbreak of COVID-19. We focused on the trends in the number of retail business closures and retail sales performance before and after COVID-19 in Seoul's commercial districts nearby subway stations. We examined how supply and demand of the commercial districts are related to the trends of retail performances. The supply side includes the diversity and specialization of the retail business, and the demand side includes characteristics of visitors. We also considered control variables related to neighborhood and spatial characteristics, such as working and resident population, average number of subway passengers and built environment. We can derive features of the retail resilient commercial districts by examining the relationship between retail performance and supply and demand of each commercial district.

### **DETERMINING PREDICTORS OF RESIDENTIAL SATISFACTION DURING THE COVID-19 PANDEMIC AMONG WHITE-COLLAR EMPLOYEES WITH WORK-FROM-HOME EXPERIENCE IN LANDED DWELLING HOUSING IN BANGKOK**

**Chatrkaw, Siravich; Pongprasert, Pornraht**

Thammasat, Thailand; [Siravich-cha63@tbs.tu.ac.th](mailto:Siravich-cha63@tbs.tu.ac.th)

The Novel Coronavirus 2019 (COVID-19) pandemic has caused societal changes, including in terms of work from home (WFH). Since January 2020 in Thailand, several companies have shifted from office workplaces to full-scale or temporary WFH for white-collar employees who achieve professional tasks remotely. Insofar as worker time spent indoors has increased, what is the overall residential satisfaction under WFH during the COVID-19 pandemic? The objective of this research was to investigate overall residential satisfaction predictors for housing, neighborhood, and relevant variables of WFH characteristics pertinent to the COVID-19 pandemic. Data was collected by online and onsite questionnaires from 293 samples, all white-collar employees who inhabit landed houses. This study is analyzed with multiple linear regression and mean comparison with independent-samples t-test, and one-way analysis of variance (ANOVA). Results predicting overall residential satisfaction comprised eight vital predictors: 1) neighborhood appearance; 2) house size; 3) ventilation; 4) privacy; 5) comfort without air conditioning; 6) distance from healthcare centers; 7) domestic design, and 8) neighborhood cleanliness, at a significance level of  $p < 0.05$ . Higher overall residential satisfaction levels were observed to be significant in terms of inhabiting a housing estate & single-detached house, number of WFH days, private workroom, house size, and so on.

### **The impact of house price shocks on labor supply decisions in Japan**

**Iwata, Shinichiro**

Kanagawa University, Japan; [siwata@kanagawa-u.ac.jp](mailto:siwata@kanagawa-u.ac.jp)

This paper examines to which extent labor supply of middle-aged and elderly homeowners reacts to unanticipated shocks to house prices, which are produced by a difference between actual and anticipated Japanese house price. The empirical evidence suggests a heterogeneous impacts among them. Only elderly homeowners response to house price shocks. We find that they attempt to remain in the labor force even when they experience positive house price stocks. Instead, they tend to reduce working times: a ten percent increase in house price shocks leads to a reduction of 14 weekly minutes for elderly women who work as non-regular employment and 19 weekly minutes for elderly men who work as regular employment.

## **AST-5: AsRES: Rents and Prices of Residential Real Estate**

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 2  
*Session Chair:* Yoshiki Shimizu, University of Minnesota Duluth, United States of America  
*Session Discussant:* Deborah Leshinsky, Alicante University, Australia  
*Session Discussant:* Yoshiki Shimizu, University of Minnesota Duluth, United States of America  
*Session Discussant:* Hung-Wei Lee, National Tsing Hua University, Taiwan  
*Session Discussant:* Jin Man Lee, DePaul University, United States of America

### **Crime Rates and Housing Prices: An Analysis Using Quantile Regression and Spatial Autocorrelation**

**Kallberg, Jarl G<sup>1</sup>; Shimizu, Yoshiki<sup>2</sup>**

<sup>1</sup>Washington State University, United States of America; <sup>2</sup>University of Minnesota Duluth, United States of America;  
[yshimizu@d.umn.edu](mailto:yshimizu@d.umn.edu)

Crime is a disamenity, so buyers should be willing to pay more for a house (all else equal) in a low crime area. However the extant empirical studies provide only weak support for this notion. This result may in part be due to the substantial econometric issues and the multitude of other factors that drive house prices. This study examines the link between crime rates and prices of residential housing. Our data begin in 2008 and end in 2020 for the City Of Seattle, Washington, including all reported felonies (756,304), all recorded residential real estate transactions (79,094) including property characteristics, demographic data from 2008 to 2019 and the corresponding changes. We show that increased crime rates depress housing prices, but the impact is relatively small and becomes even smaller when we incorporate spatial autocorrelation, which we demonstrate generates a significant improvement in the hedonic pricing models. Furthermore, from our quantile regression estimates, we find that the negative impact of crime is stronger for lower priced housing.

### **The Analysis of Reasonable Rental Cost: A Viewpoint from Real Options**

**Lee, Hung-Wei; Lin, Che-Chun; Tsai, I-Chun**

National Tsing Hua University, Taiwan; [hwlee0715@gapp.nthu.edu.tw](mailto:hwlee0715@gapp.nthu.edu.tw)

This article studies the influence of investors' expectations on the equilibrium of rents and user costs. We treat volatility as a reactive indicator of investors' expectations of future trends and use the call option as a substitution. Under this framework, the gap between rents and user costs can be measured by an option. We modify the traditional equilibrium model by adding an option and using the co-integration test to verify whether the option value can explain the deviation between rents and user costs. The results show that option value can measure the gap effectively, allowing the long-term equilibrium between rents and user costs can be estimated more accurately. Therefore, the impact of volatility on the equilibrium of rents and user costs is unignorable, and the option value can measure the volatility effectively.

### **Coincidence of Housing Conversion and Disinvestment: Microevidence from Small Multifamily Homes**

**LEE, JIN<sup>1</sup>; Kim, Jinhwan<sup>2</sup>; Ashton, Philip<sup>3</sup>**

<sup>1</sup>DePaul University, United States of America; <sup>2</sup>Hanyang University, Republic of Korea; <sup>3</sup>University of Illinois at Chicago;  
[jlee141@depaul.edu](mailto:jlee141@depaul.edu)

Small multifamily homes of 2-4 units have been critical sources of privately-owned, "naturally-occurring" affordable housing in Chicago for many decades. In this paper, we posit the coincidence of those adverse shifts, examining the circumstances of conversion of small multifamily homes to single-family homes across neighborhoods marked by significant differences in price appreciation. To examine this coincidence, we begin by investigating motivations for owners to de-convert from multi-family occupancy, using a maximum likelihood estimation for proportional hazards of conversion of 2-4 family properties in Chicago between 2000 and 2017. We find significant differences in conversion of small rental properties between neighborhoods based on intersecting price and rent dynamics, with increasing price volatility of small multifamily homes since 2008 increasing likelihood that a property will experience conversion. When combined with ongoing distress in small rental properties in low-income areas, we show that the situation of renters within "naturally-occurring" affordable rental stock has become increasingly tenuous over time due to deteriorating housing quality and/or eviction.

### **Market and Non-Market Determinants of Property Valuations decided through the Court System in Family Law Separation in Australia: Developing a Scientific Approach**

**Leshinsky, Deborah**

Alicante University, Australia; [deborah11@ozemail.com.au](mailto:deborah11@ozemail.com.au)

The family law courts in Australia are currently ill equipped to assess property valuations in regard to divorce. Judges face conflicts in the system, and there appears to be a lack of clarity regarding current market valuations. Judges look at valuations from both sides, resulting in outcomes that can be harmful to litigants and wasteful to society. While judges face the same valuation uncertainty as the parties themselves, expert witnesses will consequently continue to be called by the courts. This situation has prompted the interest in this study to evaluate the necessity for a review of court decisions.

## AST-6: AsRES: ESG of Real Estate

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 3  
*Session Chair:* Haruyoshi Ito, Aoyama Gakuin University, Japan  
*Session Discussant:* Haruyoshi Ito, Aoyama Gakuin University, Japan  
*Session Discussant:* Peter John Hunt, University of New South Wales, Australia  
*Session Discussant:* Nick Martin Trefz, EBS Universität für Wirtschaft und Recht, Germany  
*Session Discussant:* Alois Weigand, University of St. Gallen (HSG), Switzerland

### Sustainable real estate investment in an unpredictable future

**Hunt, Peter John**

University of New South Wales, Australia; [p.hunt@unsw.edu.au](mailto:p.hunt@unsw.edu.au)

The concept of sustainable development is closely aligned with the purpose of real estate in that both are designed to fundamentally serve society in providing safe and secure spaces for occupants to create enduring communities that benefit society. The construction and operation of real estate over the life cycle of a building, consumes significant quantities of natural resources and is responsible for creating significant quantities of waste and pollution.

With human population growth outstripping the global natural resource supply and regeneration capacity of the natural environment, we are witnessing an economic shift no longer based on the financial accumulation of wealth due to the demand from a burgeoning human population, but one that must now consider the natural resource supply shortages, the impacts on the natural environment and the ability to enhance societal well-being.

We are encountering an unpredictable and uncertain future, necessitating an urgent paradigm shift for all participants from the traditional processes to an adaptive response embracing the pursuit of sustainable development outcomes. Those investors that pursue this course of action will be those that prosper, those that don't will be increasingly at risk of failure and obsolescence in an altered environment.

### ESG Stocks in Times of Crisis: Evidence from US REITs During Covid-19

**Trefz, Nick Martin; Mutl, Jan**

EBS Universität für Wirtschaft und Recht, Germany; [nick.trefz@ebs.edu](mailto:nick.trefz@ebs.edu)

This study examines the link between corporate financial performance (CFP) and environmental, social, and governance (ESG) characteristics in times of crisis. We take the unpredictable nature of the Covid-19 pandemic in the first quarter of 2020 as an exogenous shock, which enables us to study abnormal returns in ESG-sorted US Real Estate Investment Trust (REIT) portfolios. REITs' homogenous business model allows us to transparently identify the link between Covid-19 ESG characteristics. Moreover, we incorporate REIT-specific Fama-French factors in addition to traditional Fama-French factors to compare REIT performance with different ESG ratings. Our findings demonstrate that ESG ratings do not affect returns during Covid-19. However, higher ESG ranked REITs show significantly lower volatility during Covid-19. We additionally show that return differences between ESG-sorted portfolios were also non-significant before Covid-19. Our findings suggest that the Covid-19 pandemic has been a strong catalyst for significant differences in variance that benefit high ESG portfolios, which was not the case before the pandemic.

### The Low-Carbon Rent Premium of Residential Buildings

**Brändle, Angelika<sup>3</sup>; Füss, Roland<sup>1,2</sup>; Schläpfer, Jörg<sup>3</sup>; Weigand, Alois<sup>1</sup>**

<sup>1</sup>University of St. Gallen (HSG), Switzerland; <sup>2</sup>NTNU Business School, Norway; <sup>3</sup>Wüest Partner AG; [alois.weigand@unisg.ch](mailto:alois.weigand@unisg.ch)

Based on 39,791 rental contracts from 2,438 residential properties in the Swiss real estate market, we study how a property's CO<sub>2</sub> emissions affect net rental values. We use a novel measure of operational carbon emissions which relies on various parameters related to the sustainability and energy efficiency of a building as well as climate conditions of its location. After controlling for a building's state, its macro and micro location, local rental market conditions and various property or apartment characteristics in an extensive hedonic framework, our results suggest that apartments in low-carbon buildings have higher net rents. This effect is mainly driven by lower ancillary costs of sustainable apartments in contrast to tenants' higher preferences for environmentally-friendly living. We underline this result by sample splits across urban and rural areas, warm and cold locations, as well as regions with a high and low share of people supporting a Federal Act for the Reduction of Greenhouse Gas Emissions in Switzerland. Based on 432 residential building transactions, we also show that low-carbon buildings have lower capitalization rates which translate into higher market values due to lower risk premiums.

### On the Pandemic Risk of Real Estate Investment in Japan

**Ito, Haruyoshi**

Aoyama Gakuin University, Japan; [haru0416@gmail.com](mailto:haru0416@gmail.com)

In this study, we consider the impact of COVID-19 on real estate investment in Japan. As a result,  $\beta$  has risen in securities of real estate business such as J-REIT index and Nikkei ESG-REIT index since COVID-19, that is, market risk of real estate business has increased since then. In particular, the  $\beta$  of the J-REIT index was about 0.1 before COVID-19, but it has risen to about 1.0 from February 2020 to December 2020. It indicates that investment in real estate in Japan is medium risk and medium return. Furthermore, we examine whether the downward risk of real estate market-related index is hedged. Our analysis shows that downside risk of real estate investment is amplified rather than hedged. This tendency can be seen even after January 2021 when the risks of COVID-19 are understood by the public. Analysis using the Nikkei ESG REIT Index shows similar results, that is, considerations of ESG does not reduce the risk of real estate investment.

## ART-4: AREUEA: Policies and Regulations 2

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 4  
*Session Chair:* Maggie Hu, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)  
*Session Discussant:* Kwan Ok Lee, National University of Singapore, Singapore  
*Session Discussant:* KE XU, the University of Hong Kong, Hong Kong S.A.R. (China)  
*Session Discussant:* Stef Schildermans, KU Leuven, Belgium  
*Session Discussant:* Richard Green, University of Southern California, United States of America

### Cross-market Spillovers of Real Estate Speculation

Hu, Rong<sup>1</sup>; Wan, Xinwei<sup>2</sup>; Xu, Ke<sup>3</sup>

<sup>1</sup>The Chinese University of Hong Kong; <sup>2</sup>The University of Cambridge; <sup>3</sup>The University of Hong Kong; [xkelly103@connect.hku.hk](mailto:xkelly103@connect.hku.hk)

This study examines the externality of anti-speculation policies and its impact on property market volatility. Employing a rich dataset on property transactions in Hong Kong from 1991 to 2020, we find that, given regulations for flippers in the presale residential property market only, the flippers will flow into the spot residential property market. After implementing the presale-specific anti-speculation policies in 1994, the percentage of flipping transactions in the spot residential property market increased by 6.9 percentage points more than that in the presale residential property market. With buyers' fixed effects, we find that existing flippers in the presale residential property market are 92.1 percentage points more likely to speculate in the spot residential property market thereafter. After the anti-speculation policies extend to the entire residential property market in 2010, there is no evidence demonstrating that the significant cross-market flipper spillover continues to the non-domestic property market. Also, in the spot residential property market that flippers spill over into after 1994, the price volatility decreased by 1.5 percentage points, implying the price stabilizing effect of flippers. These findings shed lights on the importance of considering cross-market spillovers in regulating speculations in real estate markets.

### Split incentives, imperfect information and energy efficiency subsidies

Damen, Sven<sup>1</sup>; Goeyvaerts, Geert<sup>2</sup>; Schildermans, Stef<sup>2</sup>

<sup>1</sup>University of Antwerp, Belgium; <sup>2</sup>KU Leuven, Belgium; [stef.schildermans@kuleuven.be](mailto:stef.schildermans@kuleuven.be)

We examine how agency issues due to asymmetric information affect the cost-effectiveness of subsidy programs for energy efficiency investments. In 2009, the Flemish government introduced a reduction in the property tax of 20% to 40% for newly developed or thoroughly renovated dwellings. Using the universe of 'energy performance and indoor climate' declarations, we exploit this notch to credibly identify the change in the energy efficiency due to the subsidy. The results show that the program reduced expected energy use at a cost of 0.46 euro per kWh. However, the cost per kWh saved is almost seven times larger for housing units built by developers than for housing units that were built by the future owners. The difference in the cost-effectiveness is mainly driven by a much higher share of developer built housing units that would have reached the required efficiency level even without the tax reduction (97% vs. 87%). The program's cost per kWh saved would drop to 0.22 euro if the response by developers would have been as large as the response in the owner built sample.

### Do urban regulations exacerbate rural-urban inequality? The case of rent control in India\*

Dutta, Arnab<sup>1</sup>; Gandhi, Sahil<sup>2</sup>; Green, Richard<sup>1</sup>

<sup>1</sup>University of Southern California, United States of America; <sup>2</sup>University of Manchester; [richarkg@usc.edu](mailto:richarkg@usc.edu)

We show that pro-tenant rent control laws increase the rural-urban wage gap by reducing rural-urban migration in India. Migrants are more likely to rent when they move to

cities. We find barriers to eviction reduce the supply of housing, thereby increasing the

costs of migration to cities. Exploiting changes in rent control laws in four states in a twoway fixed effects panel regression, we find that a one standard deviation point move from

pro-landlord to pro-tenant in rent control laws leads to a decline in share of rural-urban

migrants by 3.7 percentage points. We estimate that the rent control-induced decline in

rural-urban migration would lead to an increase in the rural-urban wage gap by 0.25 log

points. Our findings indicate that the unintended consequences of urban housing regulations can exacerbate rural-urban inequality.

### Online Listing Keywords and Housing Market Dynamics: A Focus on the COVID-19 Shock and Housing Demand Change

Lee, Jieun; Lee, Kwan Ok

National University of Singapore, Singapore; [kwan.lee@nus.edu.sg](mailto:kwan.lee@nus.edu.sg)

This paper is the first to consider the keywords of online listings to reveal a dynamic change in consumer preferences and to apply these keywords to model housing price premiums. Deeming the COVID-19 outbreak as a natural shock that brought a significant change in Singapore with increasing trends of working-from-home, we match the database of more than 70,000 listings scraped from the major online platform with the actual transaction database of resale public housing. Our text analysis results suggest the online listing keywords capture the change in housing demand that could not be detected from the conventional database. Listings highlighted a larger interior space and nice view more frequently while words related to accessibility or location appeared less. Next, using the triple Difference-in-Difference model, we find the 1.08% higher price premiums paid for housing units advertised with keywords highlighting the "view" after COVID-19, relative to units located in the same block and similar floor levels but have not been advertised with such keywords. This suggests that consumers would be willing to pay higher premiums for unobserved, unique features that are increasingly popular. It also emphasizes the role of agents to quickly capture and highlight popular features in the dynamic market.

## ART-5: AREUEA: Topics in Urban Economics

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 5

*Session Chair:* Michio Naoi, Keio University, Japan, Japan

*Session Discussant:* Makoto Sakuma, NLI Research Institute, Japan

*Session Discussant:* Atsushi Yamagishi, Princeton University, United States of America

*Session Discussant:* Mizuki Kawabata, Keio University, Japan

*Session Discussant:* Albert Saiz, MIT, United States of America

### Measuring Discrimination in Spatial Equilibrium: 100 Years of Japan's Invisible Race

**Yamagishi, Atsushi<sup>1</sup>; Sato, Yasuhiro<sup>2</sup>**

<sup>1</sup>Princeton University, United States of America; <sup>2</sup>The University of Tokyo, Japan; [ayamagishi@princeton.edu](mailto:ayamagishi@princeton.edu)

We propose a novel approach for measuring the cost of belonging to a discriminated group based on land prices and apply it to buraku, the historically discriminated group in Japan. Buraku discrimination is distinctive in that the observed group membership changes according to geography: one is more likely to be regarded as buraku by living in certain areas (buraku areas). We incorporate this feature into a spatial equilibrium model and show that land prices of buraku areas capitalize the overall severeness of discrimination. We then utilize newly-digitized data on land prices for Kyoto spanning from 1912 to 2018 to quantify the severeness of buraku discrimination over more than 100 years. Using a spatial discontinuity design and other identification strategies, we estimate that the land price penalty of buraku areas was 51%--56% in 1912 but gradually declined to 12%--18% in 2018. Thus, although buraku discrimination has substantially mitigated, it exhibits strong long-term persistence.

### Earthquake risk reduction and land value along geographic boundaries of extremely high-risk urban districts

**Kawabata, Mizuki<sup>1</sup>; Naoi, Michio<sup>1</sup>; Yasuda, Shohei<sup>2</sup>**

<sup>1</sup>Keio University, Japan; <sup>2</sup>Nihon University, Japan; [naoi@econ.keio.ac.jp](mailto:naoi@econ.keio.ac.jp)

How does earthquake risk reduction affect land value? We provide new evidence on such benefits by examining the impact of earthquake risk on land values along the geographic boundaries of dense urban districts with extremely high risk from earthquakes (DUDs) in Tokyo. Our analysis employs a spatial regression discontinuity (RD) design that takes advantage of the discontinuity in earthquake risk at DUD boundaries. The estimated boundary effects suggest that urban redevelopment that eliminates DUDs confers sizable benefits. Our conservative estimate with the optimal bandwidth indicates that removing DUDs increases land values by 9.0 percent near the DUD boundary. Further, we find that the boundary effect increases as the road width at the DUD boundary becomes wider. Given that wider roads are more likely to prevent fire spread than are narrower roads, our results suggest that using a sample with wide roads at the DUD boundary reduces the spatial spillover, or the violation of the stable unit treatment value assumption and provides a more reliable estimate.

### Physical Geography and Traffic Delays: Evidence from a Major Coastal City

**Saiz, Albert; Wang, Luyao**

MIT, United States of America; [saiz@mit.edu](mailto:saiz@mit.edu)

Traffic congestion is a major environmental and social problem whose causes include urban sprawl, imbalanced home-job distributions, increased car ownership, and lack of public transportation. We focus on a relatively understudied factor: the existence of geographic barriers. We study traffic times and flows in the Boston metropolitan area, a major coastal city with substantial shape non-convexities. We show that natural barriers not only cause additional delays to the trips affected directly, but also worsen downtown congestion for everyone. Additionally, commuter flows between places separated by barriers decrease, generating additional traffic elsewhere. We also find that places next to geographic obstacles suffer from higher risks of congestion, due to their lower traffic-diffusion ability. Policymakers may consider specific solutions for congestion arising from constraining physical geographies.

### Measuring Office Attendance during the COVID-19 Pandemic: Using Mobility Data to Quantify Local Trends and Characteristics

**Sakuma, Makoto<sup>1</sup>; Matsuo, Kazushi<sup>2</sup>; Tsutsumi, Morito<sup>3</sup>; Imazeki, Toyokazu<sup>4</sup>**

<sup>1</sup>NLI Research Institute, Japan; <sup>2</sup>Graduate School of Systems and Information Engineering, University of Tsukuba, Japan; <sup>3</sup>Faculty of Engineering, Information and Systems, University of Tsukuba, Japan; <sup>4</sup>Sanko Estate Co., Ltd., Japan; [msakuma@nli-research.co.jp](mailto:msakuma@nli-research.co.jp)

The COVID-19 pandemic accelerated the work-from-home trend, with great variations in location, industry, and firm size. Although these shifts significantly impact the economy and society, traditional data cannot easily track them. This study presents a method to measure office attendance and examines its trends and characteristics. First, we introduce the working-at-office ratio that is the percentage of people going to office compared to pre-COVID-19 in 74 office submarkets in six major Japanese cities by capturing mobility trends in office buildings using mobile location data. Second, the working-at-office ratio effectively measures office attendance by comparing it with other mobility data and office attendance indicators. Finally, this study examines the relationship between the working-at-office ratio and the characteristics of office buildings and tenants in each submarket. The evidence indicates that the proportion of large buildings, concentration of specific sectors, and tenant size are significantly related to office attendance. Importantly, these relationships change over time.



## ART-6: AREUEA: Homeownership and Mortgage Financing

*Time:* Friday, 05/Aug/2022: 1:00pm - 3:00pm · *Location:* Hitotsubashi 6

*Session Chair:* Timothy Riddiough, University of Wisconsin Madison-School of Business, United States of America

*Session Discussant:* Timothy Riddiough, University of Wisconsin Madison-School of Business, United States of America

*Session Discussant:* Donglin He, University of St. Gallen, Switzerland

*Session Discussant:* Philip Kalikman, Syms School of Business, United States of America

*Session Discussant:* Alla Koblyakova, Nottingham Trent University, United Kingdom

### Quantitative Easing and Disparity in the Mortgage Lending

**Füss, Roland; He, Donglin**

University of St. Gallen, Switzerland; [donglin.he@unisg.ch](mailto:donglin.he@unisg.ch)

Focusing on the US residential mortgage market, we scrutinized whether applicants of different income levels benefited to the same extent from the quantitative easing (QE1) of 2008. We found that QE1 overall benefited mortgage applicants of discrepant income levels discriminatorily. The high-income applicants got the largest improvement in purchasing mortgage rate and refinancing mortgage rate after QE1, and the high-income households increased their refinancing activity after QE1 more than their counterparties in the low and middle-income groups.

### Targeted Principal Forgiveness Is Effective: Mortgage Modification and Financial Crisis

**Kalikman, Philip<sup>1</sup>; Scally, Joelle<sup>2</sup>**

<sup>1</sup>Syms School of Business, United States of America; <sup>2</sup>Federal Reserve Bank of New York; [philip@kalikman.com](mailto:philip@kalikman.com)

Research into the Global Financial Crisis finds forgiving mortgage principal ineffective at stemming defaults, and argues that borrowers default because of illiquidity, not strategically. We argue the opposite: targeted forgiveness is effective, and default is better explained by quantifying how illiquidity interacts with borrowers' strategy. We embed these interactions in a computational heterogeneous structural model, introducing idiosyncratic default penalties. Differing penalties explain borrowers' differing deviations from pure-financial optimality. We run the model on heterogeneous microdata, estimating penalties from credit scores and payment histories. Forgiving low-score, deep-underwater borrowers would have eliminated nearly all their defaults, with net gain for lenders.

### Locational Differences in Mortgage Affordability and Mortgage Choice Decisions in the UK

**Koblyakova, Alla<sup>1</sup>; Tiwari, Piyush<sup>2</sup>; Hutchison, Norman<sup>3</sup>**

<sup>1</sup>Nottingham Trent University; <sup>2</sup>University of Melbourne; <sup>3</sup>University of Aberdeen; [alla.koblyakova@ntu.ac.uk](mailto:alla.koblyakova@ntu.ac.uk)

The extent to which housing expenses rise faster or slower than average earnings affect mortgage payment levels and mortgage borrowing decisions. The important point is that locational variations in incomes, house prices and lending conditions may create different patterns in the uptake of mortgage contracts, according to the distribution of less or more affordable mortgage choices. This paper addresses the question of urban versus rural disparities in affordability of mortgage loans, applying life cycle perspective. Within simultaneous equation modelling framework, empirical estimates focus on exploring mortgage market imperfections, as reflected by the co-joint determination of mortgage payment to income levels, leverage size and fixed versus variable rate mortgage choice decisions. The findings reveal that in the UK, variable rate contracts represent constrained rather than preferred mortgage choices, allowing for larger mortgage debt. Results also suggest that residing in urban locations typically leads to a greater leverage level, implying the possibility of a differentiated response from urban versus rural locations to income shocks and changes in monetary policy decisions. Subjective households' expectations affect attitudes towards maximising leverage size and choosing variable rate options, while increases in the new housing supply might not be a major panacea for helping with affordability levels.

### High Temperature, Climate Change and Mortgage Termination Decisions

**Riddiough, Timothy; Deng, Yongheng; Li, Teng; Han, Congyan**

University of Wisconsin Madison-School of Business, United States of America; [timothy.riddiough@wisc.edu](mailto:timothy.riddiough@wisc.edu)

We investigate the relationship between extreme temperature and residential mortgage default and prepayment outcomes using fine-scale weather information and comprehensive loan performance data. Our model identifies three possible channels through which extreme temperature shocks operate: default resulting from labor income interruptions, flawed cognitive responses, and rational concerns over climate change that lead to adaptive responses.

Conditional on a rich set of default and loan termination risk controls, as well as county level-time fixed effects, we identify a significant high temperature-mortgage termination relation. Results indicate that high-temperature acts as a trigger that causes underwater homeowners to terminate their loans.

Altogether the evidence favors rational concern over climate change, with homeowners discerning a mismatch between the current home-location and the preferred home-location, which leads to an adaptive response. Other explanations that rely on flawed heat-induced decision-making or liquidity-based labor force effects have less support. Our findings have direct monetary and bank regulatory policy implications.

## ARV-5: AREUEA: Affordable Housing

*Time:* Saturday, 06/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 1  
*Session Chair:* Boaz Abramson, Stanford University, United States of America  
*Session Discussant:* Xiao (Betty) Wang, New York University, United States of America  
*Session Discussant:* Boaz Abramson, Stanford University, United States of America  
*Session Discussant:* Lok Man Michelle Tong, CAIA, LSE & Reading Alumni, Canada  
*Session Discussant:* Hanchen Jiang, University of North Texas, United States of America

### The Welfare Effects of Eviction and Homelessness Policies

**Abramson, Boaz**

Stanford University, United States of America; [boaza@stanford.edu](mailto:boaza@stanford.edu)

This paper studies the implications of rental market policies that address evictions and homelessness. Policies that make it harder to evict delinquent tenants, for example by providing tax-funded legal counsel in eviction cases ("Right-to-Counsel") or by instating eviction moratoria, protect renters from eviction in bad times. However, higher default costs to landlords lead to higher equilibrium rents and lower housing supply, implying homelessness might increase. I quantify these tradeoffs in a model of rental markets in a city, matched to micro data on rents and evictions as well as shocks to income and family structure. I find that "Right-to-Counsel" drives up rents so much that homelessness increases by 15% and welfare is dampened. Since defaults on rent are driven by persistent income shocks, making it harder to evict tends to extend the eviction process but doesn't prevent evictions. In contrast, rental assistance lowers tenants' default risk and as a result reduces homelessness by 45% and evictions by 75%. It increases welfare despite its costs to taxpayers. Eviction moratoria following an unexpected economic downturn can also prevent evictions and homelessness, if used as a temporary measure.

### Employment Dispersion and Housing Affordability: Evaluate the Opportunity Areas in London UK

**Tong, Lok Man Michelle**

CAIA, LSE & Reading Alumni, Canada; [mictong@gmail.com](mailto:mictong@gmail.com)

We present a new perspective of employment dispersion to interpret the causes of a housing affordability crisis. The Greater London Authority introduced the Opportunity Area Plan that aims to provide significant housing supply and develop business hubs. Around 60% of designated areas were adopted as of 2016. To evaluate its effectiveness on housing and labor markets, we exploit a combined approach of fuzzy regression discontinuity design, difference-in-differences, and simultaneous/recursive equations. Despite the Plan has led to a surge in housing supply, it has not improved housing affordability since it stimulates spillover to raise neighboring employment and does not disperse employment surrounding the Areas. We substantiate the employment dispersion effect which is not especially driven by the Opportunity Areas as an effective way to mitigate the affordability problem. The relaxation of the greenbelt is another crucial approach to solving the housing crisis.

### Measuring the Value of Rent Stabilization and Understanding its Implications for Racial Inequality: Evidence from New York City

**Jiang, Hanchen<sup>1</sup>; Chen, Ruoyu<sup>2</sup>; Quintero, Luis<sup>3</sup>**

<sup>1</sup>University of North Texas, United States of America; <sup>2</sup>George Washington University; <sup>3</sup>Johns Hopkins University;  
[hanchen.rafael@gmail.com](mailto:hanchen.rafael@gmail.com)

Rent stabilization is valuable to occupying tenants because it limits rent growth. Assessing the rent discount implied by this policy is challenging because the counterfactual rents that rent-stabilized units would command in the unregulated market are unobservable. Using novel data from 2002 to 2017, we estimate the counterfactual rent and predict the quality-adjusted rent discount for each rent-stabilized unit in New York City (NYC). Results are notably robust to different empirical models, including propensity score and repeated rents with a panel of deregulated units. We find mean rent discounts of \$410 per month, corresponding to 34% of the mean contract rents of rent-stabilized units. The aggregate size of the rent discounts in NYC is between 4 to 5.4 billion USD per year. Furthermore, we document the following stylized facts: (1) the value of rent stabilization increases linearly with housing tenure; (2) rent stabilization is not progressive; (3) rent discounts are consistently larger in Manhattan and increasing in neighborhoods with gentrification. Finally, we apply the estimated rent discounts to analyze racial inequality in the access to these benefits. We find that rent stabilization has disproportionately benefited White tenants. However, this gap has closed in recent years.

### Housing Market Segmentation

**Wang, Xiao (Betty)**

New York University, United States of America; [xw2852@nyu.edu](mailto:xw2852@nyu.edu)

This paper presents a new mechanism of how the micro-structure of housing markets affects house prices through the local distribution of home-buyers. The intuition behind this new mechanism is that house price that one buyer faces depends on what other home-buyers are willing to pay for it to bid one out. To formalize the intuition, I introduce a new concept of local price rank segmentation (LRS) and build an endogenous supply side on the workhorse assignment model. In the model, developers internalize the assignment frictions from local ranks when deciding which qualities to supply and these frictions feed back to prices. Using data on 188 U.S. cities from 2000 to 2015, I quantitatively characterize the effects of relative local rank of home-buyers on house prices. The frictions account for 8% of variation in prices on average with the middle-income home-buyers bearing the greatest burden. These findings provide new insights on within-market vertical frictions across price ranks in local housing markets, and help us understand how targeted housing policies (e.g. low-income housing subsidies) could have spillover effects on other segments within the same local market.



## ARV-6: AREUEA: Urban Amenities

*Time:* Saturday, 06/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 2

*Session Chair:* Yan Zhang, Loyola Marymount University, United States of America

*Session Discussant:* Hao Suo, Central University of Finance and Economics, China, People's Republic of

*Session Discussant:* Deyu Rao, Hong Kong University of Science and Technology, Hong Kong S.A.R. (China)

*Session Discussant:* Yan Zhang, Loyola Marymount University, United States of America

*Session Discussant:* Lorenzo Barisone, Università della Svizzera Italiana, Switzerland

### **The Role of Environmental Amenities in the Urban Economy: Evidence From a Spatial General Equilibrium Approach**

**Rao, Deyu**

Hong Kong University of Science and Technology; [dr526@cornell.edu](mailto:dr526@cornell.edu)

Environmental amenities could play an important role in residential location decisions, which in turn affect the concentration of consumption and production activities. In practice, the role of environmental amenities may be suppressed by the lack of information on the level of amenities or consumer awareness on their benefit, leading to suboptimal decisions and potential welfare loss. I develop and estimate a spatial general equilibrium model to examine how environmental amenities affect the spatial distribution of urban economic activities and the welfare consequences. The equilibrium model characterizes household location and consumption decisions as well as production decisions while incorporating agglomeration and dispersion forces. Counterfactual simulations suggest a 8.4% welfare gain if households were to fully incorporate environmental amenities into their decisions, compared to the scenario of not incorporating environmental amenities. The welfare difference is driven by changes in residential and workplace locations as well as consumption and production decisions.

### **Do Local Government Officials Tunnel Public Goods to Corporations in China? Evidence from Overall Subway Land Auctions (2008--2017)**

**Zhang, Julian<sup>1</sup>; Wang, Shiyu<sup>2</sup>**

<sup>1</sup>Loyola Marymount University, United States of America; <sup>2</sup>Soochow University, China; [julian.zhang@lmu.edu](mailto:julian.zhang@lmu.edu)

China provides a unique opportunity to extend the growing literature which studies the relation between local government and corporations. However, corruption may play an important role which clouds the perspective of such research. Using the comprehensive land auction data of all cities building subway in China between 2008 and 2017, we find that the local government charges a premium of \$362.45 (2337.2 RMB) per square meter on average for the land parcels within 1 kilometer of a future subway station. Using regression discontinuity test as the identification strategy, we also confirm the significant price gap across the border of walking distance to the subway station. These findings, together with robustness test results with measure of corruption and tunneling in previous studies, are consistent with the hypothesis that the main incentive of Chinese local government officials, when selling lands, is promotion rather than rent-seeking.

### **Traffic Exposure and Income Sorting**

**Barisone, Lorenzo<sup>1,2</sup>**

<sup>1</sup>Università della Svizzera Italiana, Switzerland; <sup>2</sup>Office of Urban Statistics - City of Lugano, Switzerland; [lorenzo.barisone@usi.ch](mailto:lorenzo.barisone@usi.ch)

This paper studies the effects of traffic exposure on the income sorting of heterogeneous residents. Exploiting the quasi-experimental setting of the introduction of a new road plan (PVP) implemented in a medium-sized Swiss city (Lugano), I use a structural model for residential location choices to estimate the effect of traffic exposure's changes on housing rental prices, population relocation, and income-based residential segregation. I find that low-income renters tend to migrate to neighborhoods that have increased their traffic level, while high-income ones are more likely to cluster in less-trafficked areas. This mechanism is consistent with the fact that traffic exposure negatively impacts housing prices, rendering less-trafficked neighborhoods less affordable for low-income households. Using the estimated parameters of the model, I build two counterfactual simulations to analyze the impact of the long-lake closure and of an ideal segregation-reductive traffic management policy. The local government can reduce residential segregation by implementing traffic changes in contrast with the "desired" variations of each income class.

### **Who Benefits from Water Quality Control? Environmental Regulation, Housing Wealth, and Consumption Inequality**

**Du, Rui<sup>1</sup>; Sun, Weizeng<sup>2</sup>; Suo, Hao<sup>2</sup>**

<sup>1</sup>Department of Economics, Oklahoma State University; <sup>2</sup>School of Economics, Central University of Finance and Economics; [suohao1997@163.com](mailto:suohao1997@163.com)

This paper examines the effect of water quality regulations on housing wealth and household consumption. Using data from the water quality monitoring system, we check for structural breaks in water quality improvements from 2007 to 2018. Exploiting structural breaks, we find that water quality improvements lead to significant house price appreciation for the properties in close proximity to water areas. Using a nationally representative household survey, we show that water quality improvements drive up households' home wealth accumulation and consumption. These economic benefits are mainly concentrated in the homeowners living close to water amenities, suggestive of the channel of housing wealth effects. Importantly, we highlight the household consumption inequality that arises from the unequal distribution of the economic benefits of water pollution regulations. We argue that elastic housing supply has important policy implications for promoting more equally shared dividends from environmental regulations through promoting social multiplier effects.

## ARV-7: AREUEA: ESG

*Time:* Saturday, 06/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 3  
*Session Chair:* Avis Devine, Schulich School of Business, York University, Canada  
*Session Discussant:* Xudong An, Federal Reserve Bank of Philadelphia, United States of America  
*Session Discussant:* Avis Devine, Schulich School of Business, York University, Canada  
*Session Discussant:* Edward Seiler, Mortgage Bankers Association, United States of America  
*Session Discussant:* Dongxiao Niu, Tsinghua University, China, People's Republic of

### From Wall Street to Main Street: How Corporate Diversity Shapes Cities

**Devine, Avis<sup>1</sup>; Jolin, Isabelle<sup>2</sup>; Kok, Nils<sup>3</sup>; Yonder, Erkan<sup>2</sup>**

<sup>1</sup>Schulich School of Business, York University, Canada; <sup>2</sup>John Molson School of Business, Concordia University, Canada; <sup>3</sup>Department of Finance, Maastricht University, The Netherlands; [adevine@schulich.yorku.ca](mailto:adevine@schulich.yorku.ca)

The real estate industry is traditionally considered a male-dominated industry. At the same time, the industry shapes the quantity and quality of space in U.S. cities. In this paper, we study the impact of board gender diversity on the risk management decisions of 180 U.S. Real Estate Investment Trusts (REITs) during the 2001 to 2018 period. Using a bottom-up analysis on the properties in REIT portfolios, we find significant risk-reduction benefits associated with gender diversity, documenting that more gender-diverse REITs are more actively investing in environmentally-sustainable real estate. In addition, female CEOs are less overconfident than their male counterparts, leading to less active trading and a longer hold period of assets. Finally, more gender-diverse REITs are less geographically diversified, focusing capital allocations on a smaller number of states and cities. We conclude that diversity in real estate firms on Wall Street has real-life implications for Main Street, which is important given the growth of REITs and private equity real estate firms.

### Who Owns Climate Risk in the U.S. Real Estate Market?

**Woodwell, Jamie; Fratantoni, Mike; Seiler, Edward**

Mortgage Bankers Association, United States of America; [eseiler@mba.org](mailto:eseiler@mba.org)

Physical, economic, and social changes associated with a changing climate will directly affect real estate markets in the United States. Because market participants keenly focus on the identification, assessment, mitigation, underwriting, insurance, and pricing of risk, they create a unique case study for understanding the ways in which climate-related risks are likely to impact individual actors and the market ecosystem as a whole. Modeling the “ownership” of risks illuminates under which circumstances homeowners, insurance providers, lenders, investors, and others do and do not take on physical, transition and other risks, and the level of risk “owned” by each. We find that owners bear the burden of paying for the risks, in some circumstances through explicit or implicit insurance, but that the ways in which responsibility for climate risk is distributed among the various market players is heavily dependent on whether the property owner does or does not have a mortgage in place and whether that mortgage is held in a lender’s portfolio or sold into the secondary market. The results have broad implications for where risk management and regulation can have the most significant impacts.

### Quantifying the Impacts of Climate Shocks in Commercial Real Estate Markets

**Holtermans, Rogier<sup>1</sup>; Niu, Dongxiao<sup>2</sup>; Zheng, Siqi<sup>3</sup>**

<sup>1</sup>University of Guelph; <sup>2</sup>Tsinghua University; <sup>3</sup>MIT; [dxniu1@gmail.com](mailto:dxniu1@gmail.com)

This study estimates the capitalization of climate shocks on commercial real estate owned and operated by sophisticated investors. We focus on Hurricane Sandy and Hurricane Harvey to quantify the price impacts of climate shocks on commercial buildings in the U.S. We find clear evidence of a decline in transaction prices in hurricane-damaged areas after the hurricane made landfall, compared to unaffected areas. Moreover, we observe that properties in locations with stronger market fundamentals in the local area or in the small portfolios owned by local investors show smaller discounts for the climate risk. These results demonstrate that the “climate risk discount” in real estate prices depends on the “replaceability” of the current asset (and associated location) in investors’ choice set. If a property is less replaceable in the investor’s location choice set or asset choice set (portfolio), the investors are willing to claim a smaller price discount because they do not have enough other good alternatives to choose from. We also create an index using Google search to rank investors with respect to their “marketing greenness” and document that these “green” investors are likely to claim a larger price discount for properties at higher climate risks.

### THE ROLE OF SOCIAL CAPITAL IN CONSUMER CREDIT DECISIONS

**An, Xudong<sup>1</sup>; Ghoul, Sadok El<sup>2</sup>; Guedhami, Omrane<sup>3</sup>; Levine, Ross<sup>4</sup>; Roman, Raluca<sup>1</sup>**

<sup>1</sup>Federal Reserve Bank of Philadelphia, United States of America; <sup>2</sup>University of Alberta; <sup>3</sup>University of South Carolina; <sup>4</sup>University of California, Berkeley; [Xudong.An@phil.frb.org](mailto:Xudong.An@phil.frb.org)

Using confidential Home Mortgage Disclosure Act (HMDA) data, we find that social capital is positively associated with loan officers’ credit approval decisions in the consumer mortgage market. Controlling for consumer and market characteristics as well as multidimensional fixed effects capturing changes in local markets over time and within lenders over time, we document that social capital increases approval rates and reduces screening time. Falsification tests show no effects for decisions generated by automated underwriting systems (AUSs), which cannot consider social capital, and weaker effects among Fintech lenders, which make less use of direct interactions. Using Black Knight McDash data, we find further that approved borrowers in counties with higher social capital have lower delinquency rates post-origination, suggesting that social deviations (in this context, default) can be costly in such environments. Our results hold for many other robustness tests, including an instrumental variable analysis, and self-selection tests using additional unique datasets that help control for unobservable consumer traits.

## ARV-8: AREUEA: Homeownership

*Time:* Saturday, 06/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 4  
*Session Chair:* Gregor Schubert, UCLA Anderson, United States of America  
*Session Discussant:* Gregor Schubert, UCLA Anderson, United States of America  
*Session Discussant:* Chao Ma, Xiamen University, China, People's Republic of  
*Session Discussant:* Yi Fan, National University of Singapore, Singapore  
*Session Discussant:* Jaime Luque, ESCP Business School, Spain

### Housing-Market Interventions and Entrepreneurship

**Ma, Chao<sup>1</sup>; Zhang, Shuoxun<sup>2</sup>**

<sup>1</sup>Xiamen University, China, People's Republic of; <sup>2</sup>Sichuan University, China, People's Republic of; [ma.271@buckeyemail.osu.edu](mailto:ma.271@buckeyemail.osu.edu)

Using the entire universe of firm registration data from the Bureau of Industry and Commerce, we study how entrepreneurship is affected by the housing purchase restriction (HPR) policy, an austere housing-market cooling intervention in China. While the original purpose of HPR was only to slow house price growth, we find that HPR can increase new firm creation by approximately 20%. The explanation is that, when HPR is adopted, potential entrepreneurial investments by households whose housing purchase eligibilities are affected will no longer be crowded out by housing investments. HPR has larger effects on cities with more household deposit balance.

### The Role of Consumption in Marriage Commitment: Evidence from Singapore's Build-to-Order Program

**Agarwal, Sumit<sup>1</sup>; Fan, Yi<sup>1</sup>; Qian, Wenlan<sup>1,2</sup>; Sing, Tien Foo<sup>1</sup>**

<sup>1</sup>National University of Singapore, Singapore; <sup>2</sup>University of Hong Kong; [yi.fan@nus.edu.sg](mailto:yi.fan@nus.edu.sg)

Declining marriage rate is a rising concern around industrialized world. Using Singapore's Build-to-Order (BTO) scheme as a quasi-natural experiment, we investigate the effect of consumption in marriage commitment. In 2001, Singapore launched the BTO scheme to build and allocate new public housing, with a pre-requisite of forming family nucleus. We first demonstrate stylized facts on the coincidence between BTO and rising numbers of marriages and divorces. Second, applying propensity score matching, we find that married BTO residents below 35 years old consume 12.4% less on average goods—and 35% less on visible goods—compared to married residents in non-BTO housing estates. The drops in private consumption are more significant among married residents in the early 30s and females. Third, we conduct an event study and find that married BTO residents significantly reduce their private consumption, especially on visible goods from 1 year before to 1.5 years after moving into BTO flats, compared to their consumption 2 years before moving. In contrast, no significant change in consumption is found for single BTO residents above 35, who are not bound to get married when buying a BTO flat. Last, we use mortgage data to suggest a possible trade-off between private consumption and housing mortgage.

### Credit Scoring Technologies and the Mortgage Credit Supply Boom

**Luque, Jaime<sup>1</sup>; Riddiough, Timothy<sup>2</sup>**

<sup>1</sup>ESCP Business School, Spain; <sup>2</sup>University of Wisconsin Madison School of Business; [jluque@escp.eu](mailto:jluque@escp.eu)

We study the role of credit scoring technologies (CSTs) in affecting the flow of capital into the housing market. By providing both theory and empirical evidence, we link the adoption of CSTs to the boom in credit supply and house prices. Portfolio lenders (PLs) and remote "originate-to-distribute" lenders (OTDs) compete for creditworthy borrowers. We predict the existence of distinct mortgage market configurations that characterize the emergence of CST-based OTD lending. Screening becomes increasingly lax as the OTD lending sector gains market share. Model calibration places the CS technology shock as occurring in 1995, which helps to explain the origins of the mortgage credit supply and house price boom that preceded the GFC.

### The Housing Market Impact of Immigrant Preferences for Homeownership

**Schubert, Gregor<sup>1</sup>; Gorbach, Caitlin<sup>2</sup>**

<sup>1</sup>UCLA Anderson, United States of America; <sup>2</sup>UT Austin McCombs, United States of America; [schubert.gregor@gmail.com](mailto:schubert.gregor@gmail.com), [caitlin.gorbach@gmail.com](mailto:caitlin.gorbach@gmail.com)

The effects of homeownership on the American economy and local housing markets are much-debated and the U.S. government devotes substantial resources to trying to affect the financial returns of different tenure choices. However, much of the research on homeownership is inconclusive, as homeownership, its determinants, and local economic health are often endogenous. We propose a new instrument for tenure choice: cultural affinity for homeownership. We focus on foreign-born U.S. residents and show that immigrants with a high homeownership in their country of origin ("HOCO") have higher homeownership in the U.S. as well: moving between the interquartile range of HOCO increases homeownership by 3ppt. Taking the data to the zip code level, we construct an instrument appropriate to measure HOCO's impact on local market-level homeownership, finding a zip-code level passthrough of 0.2-0.3. from the predicted HOCO effect to local aggregates. Finally, we use this instrument to show that homeownership, instrumented using cultural preferences, has the potential to stabilize local housing markets, as house prices and local population in high homeownership areas react less pro-cyclically to national shocks.

## AST-7: AsRES: Affordable Housing and Policies

Time: Saturday, 06/Aug/2022: 10:00am - 12:00pm · Location: Hitotsubashi 1

Session Chair: Soon Mahn Park, Myonji University, Korea, Republic of (South Korea)

Session Discussant: Ming Chen, The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

Session Discussant: Soon Mahn Park, Myonji University, Korea, Republic of (South Korea)

Session Discussant: Alla Koblyakova, Nottingham Trent University, United Kingdom

Session Discussant: Jie Huang, Southeast University, China, People's Republic of

### Public Perception of Universal Basic Housing : the Case of Gyeonggi Province

**Park, Soon Mahn<sup>1</sup>; Kim, Jin-Yoo<sup>2</sup>**

<sup>1</sup>Myonji University, Korea, Republic of Korea (South Korea); <sup>2</sup>Kyonggi University, Republic of Korea (South Korea); [soonmai@mju.ac.kr](mailto:soonmai@mju.ac.kr)

Korea's public rental housing policy has been developed from the residual model for the low-income class and the vulnerable class to the general model and is evolving into the universalist model. Universal model providing high-quality public housings through affordable rental rates based on a sustainable supply system, is expected to successfully achieve housing stability and eliminate the unstable factors in the Korean housing market in the future. This study is based on a survey conducted from 2020 to 2021 for 3535 tenants residing in Gyeonggi Province, assuming the condition of introduction of universal model of public housings; the general public's intention to move in, the willingness to pay, the household characteristics and etc. Based on the survey results, securing sufficient income from the tenants with high affordability are confirmed to be helpful for the progressive long-term application of universal public housing in Korea.

### How much unaffordable dwelling can I afford? Evidence from the Israeli Housing Market

**Fleishman, Larisa<sup>1</sup>; Sayag, Doron<sup>1</sup>; Koblyakova, Alla<sup>2</sup>**

<sup>1</sup>Central Statistical Bureau of Israel; <sup>2</sup>Nottingham Trent University; [alla.koblyakova@ntu.ac.uk](mailto:alla.koblyakova@ntu.ac.uk)

This paper proposes the new housing affordability measure, the AGM (Affordability Gap Matrix), based upon the Israeli Household Expenditure Survey data. Employing the AGM approach, the new affordability index has been constructed and analyzed applying the survey data for 5-year-laged time points during the 16-year time span (2002 -2017). The main novelty is that this new affordability measure accounts not only for house prices and incomes, but also considers for prevailing lending restrictions, mortgage costs, HHs demographics and housing quality components, matching HH's needs to dwelling size, and the restrictions on maximum loan amount available to different HHs' groups, at the lowest disaggregated level. The main results specify several affordability ranks, also showing that during the recent decade (2007-2017), housing affordability has worsened for more than 70% of the Israeli's HHs. In 2017, more than 80% of the young HHs could not afford properties specified as crowded dwelling, while more than 80% of the HHs with more than 5 children were not able to afford even overcrowded dwellings. The new AGM approach may provide the basis for the important policy implications that may assist in implementation of affordable housing schemes, maximum LTVs regulations, and monetary policy changes.

### China's New Affordable Housing REITs Initiative, a Case Study of Nanjing

**Huang, Jie<sup>1</sup>; Zhang, Zhekai<sup>2</sup>; Xiahou, Xiaer<sup>1</sup>; Li, Kang<sup>1</sup>; Ji, Min<sup>3</sup>**

<sup>1</sup>Southeast University, China, People's Republic of; <sup>2</sup>Nanjing Audit University; <sup>3</sup>Real Estate Institute of Nanjing; [jett\\_huang@seu.edu.cn](mailto:jett_huang@seu.edu.cn), [396306520@qq.com](mailto:396306520@qq.com)

This paper examines the possibility of establishing an affordable housing REIT in major Chinese cities in order to address the financial problem faced by the country's affordable housing sector. This paper builds, for the first time, a robust link between the affordable housing sector and REITs in China based on real world scenarios. The link is supported by real data from the affordable housing sector of Nanjing, from 2016 to 2022, as well as well-established international practices from Hong Kong and the United States.

This paper finds that the Chinese government has considered the vehicle of REITs as the best option to liquidate the existing stock and free resources to fund further investment and repay the debt. In addition, overseas insights suggest that the Hong Kong model could provide the strategic framework, while the US model can provide specific tactics to be adopted in the proposed Chinese REIT in order to avoid some of the difficulties experienced in Hong Kong. This paper ultimately suggests that a purely affordable housing REIT would be impossible to establish in Nanjing, or in similar major cities, under current conditions. However, an REIT holding commercial real estate within affordable housing estates would be a workable solution.

### Macroprudential policy and property markets: Evidence from Hong Kong

**Fan, Ying; Chen, Ming**

The Hong Kong Polytechnic University, Hong Kong S.A.R. (China); [21037698r@connect.polyu.hk](mailto:21037698r@connect.polyu.hk)

In this paper, we investigate housing market responses to the macroprudential policy using quasi-experimental variations in loan-to-value (LTV) ratio notches and kinks of the Hong Kong Mortgage Insurance Programme (MIP). Based on transaction records covering the period between 2015 and 2020, we find that notches and kinks in the LTV ratio criteria in MIP lead to significant bunching effects in price distribution. In addition, we identify a higher leverage elasticity of demand for speculators than for first-time buyers and find that the LTV relaxation associated with MIP adjustment results in unintended consequences in terms of efficiency and equality. As the programme applies to mortgagors who do not hold any residential properties at the time of application, speculators use these opportunities to sell to buy and leverage more property investments. This process hinders homeownership of genuine first-time buyers, as they occupy a smaller unit and face larger optimization frictions. We further discuss LTV policy design in correcting housing market dynamics and distortion.

## AST-8: AsRES: Japanese & Asia-Pacific REITs

Time: Saturday, 06/Aug/2022: 10:00am - 12:00pm · Location: Hitotsubashi 2

Session Chair: Akira Ota, Tokyo City University, Japan

Session Discussant: Koji Sawada, Kurume University, Japan

Session Discussant: Akira Ota, Tokyo City University, Japan

Session Discussant: Masayuki Ishihara, Takara PAG Real Estate Advisory Ltd, Japan

Session Discussant: Hainan Sheng, University of Missouri - St. Louis, United States of America

### A Study on the Characteristics of Voluntary Disclosure in J-REIT Prospectuses for Seasoned Equity Offerings

**Ota, Akira<sup>1</sup>; Saeki, Masahito<sup>2</sup>; Takahashi, Hiroshi<sup>3</sup>**

<sup>1</sup>Tokyo City University, Japan; <sup>2</sup>Mori Hamada & Matsumoto, Japan; <sup>3</sup>Keio University, Japan; [otaa@tcu.ac.jp](mailto:otaa@tcu.ac.jp)

This study aims to clarify the characteristics of voluntary disclosure in J-REIT prospectuses for SEOs, which is unique worldwide, and the impact of such voluntary disclosure on the unit prices of the J-REITs themselves. We summarized the scope of statutory and voluntary disclosures under the Japanese listing rules for J-REITs and confirmed how they make those disclosures on changes in income, earnings or dividends, property acquisitions, and debts, which are considered to be important matters under the listing rules. We also investigated when and how J-REITs started to make voluntary disclosures in prospectuses on their changing debt ratios and on the net property income of their portfolios before and after their SEOs, which are assumed to be useful information for investors. Finally, we analyzed the impact of such voluntary disclosures in prospectuses on the unit prices of J-REITs.

### On the analysis of J-REIT share repurchases

**Ishihara, Masayuki**

Takara PAG Real Estate Advisory Ltd, Japan; [mishihara@takara-pag.com](mailto:mishihara@takara-pag.com)

We have been observing share repurchases in J-REIT markets since 2017, and this paper explores the impacts and motivations of share repurchases by utilizing three different approaches: event study analysis, Poisson regression analysis, and generalized extreme value analysis.

Significant positive abnormal returns are observed, and the level of abnormal returns are larger than the U.S. cases in event study analysis. The main factor which initiated the repurchases is lower market average NAV multiple indicated by Poisson regression analysis using monthly market level data.

As for idiosyncratic level, using generalized extreme value regression analysis, we provide that lower NAV multiple and relatively larger size are the common characteristics for the candidates of share repurchases.

### Short Sales, Short Risk, and Return Predictability in Asia-Pacific Real Estate Markets

**Cashman, George D.<sup>1</sup>; Harrison, David M.<sup>2</sup>; Sheng, Hainan<sup>3</sup>**

<sup>1</sup>Marquette University, USA; <sup>2</sup>University of Central Florida, USA; <sup>3</sup>University of Missouri - St. Louis, USA; [hainan.sheng@umsl.edu](mailto:hainan.sheng@umsl.edu)

This paper investigates the information content of short sales across Asia-Pacific real estate markets. While the transparent nature of securitized real estate markets within the United States may render short selling activities relatively uninformative with respect to future firm values, such relations have not been broadly explored with respect to the rapidly developing Asia-Pacific region. Within this more informationally opaque market setting, we find evidence that short selling is significantly riskier than shorting in the U.S. Moreover, such risks may well influence investor behavior, as lower levels of shorting are observed across listed Asia-Pacific real estate firms than their U.S. based counterparts. Finally, we also document short sale considerations within this market sector are more informative with respect to future return predictability than similar signals observed for U.S. listed real estate firms. Specifically, increased levels of short interest outstanding, as well as elevated levels of exposure to short sale risk, both exhibit significant (negative) predictive ability over future equity returns. As such, we conclude the relative opacity of international equity markets creates limits to arbitrage, and thereby hinders the efficiency of the price discovery process for listed property companies across the Asia-Pacific region.

### Another cause of REIT's price discovery arising from REIT's real estate investment process — verification with dynamic panel analysis-

**Sawada, Koji**

Kurume University, Japan; [aressawada@yahoo.co.jp](mailto:aressawada@yahoo.co.jp)

This paper puts forward a cause of the REIT's price discovery that is different from the cause of the difference in informational efficiencies between the REIT market and real estate one pointed out by previous studies. The REIT's price discovery is the phenomenon that REIT returns at a certain time explain real estate returns at a later time.

Then, the validity of the cause presented here is verified with empirical studies by presenting panel and dynamic panel models and estimating these models by using annual balanced panel data of the 15 J-REITs during the period 2006-2018 on the Real Estate Acquisition Rate (RAR) and the Price Increase Rate of REIT (PIR) as well as some macro-economic variables

.If the cause of the REIT's price discovery verified in this paper is taken into account, it is concluded that the REIT price change occurred by the events irrelevant to the fundamentals of the real estate market such as BOJ's REIT purchase or Banks REIT selling, it will cause negative effect on the real estate market.

It is this paper's implication that the monitoring of REIT price formation in the securities market is very important.



## ART-7: AREUEA: Information and Transactions

*Time:* Saturday, 06/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 4

*Session Chair:* Miki Seko, Musashino University, Japan

*Session Discussant:* Tingyu Zhou, Florida State University, United States of America

*Session Discussant:* Danny Ben-Shahar, Tel Aviv University, Israel

*Session Discussant:* Chris Cunningham, Federal Reserve Bank of Atlanta, United States of America

*Session Discussant:* Hiroaki Niikura, Musashino University, Japan

### Zero Price Effect and Consumer Welfare: Evidence from Online Classified Home Service

**Ash, David; Ben-Shahar, Danny**

Tel Aviv University, Israel; [bdanny@tauex.tau.ac.il](mailto:bdanny@tauex.tau.ac.il)

We test whether the tendency to overvalue a free service over a paid alternative may lead to inferior economic outcomes. We use data from an online classified home service in Israel that allows sellers to offer their housing units for sale under either free-basic or paid-premium listing categories. Results show that while the vast majority of sellers choose the free-ad category, the paid-premium category generates increased demand, greater transaction price, and decreased time-on-market—adding up to an average net benefit of about 3.5–3.8 percent of the average transaction price (equivalent to about 12K–13K USD). Outcomes are robust to a series of identification and test-design issues.

### The Good, the Bad and the Ordinary: Estimating Agency Value-Added using Real Estate Transactions

**Cunningham, Chris<sup>2</sup>; Gerardi, Kristopher<sup>2</sup>; Shen, Lily<sup>1</sup>**

<sup>1</sup>Clemson University, United States of America; <sup>2</sup>Federal Reserve Bank of Atlanta; [Chris.Cunningham@atl.frb.org](mailto:Chris.Cunningham@atl.frb.org)

This paper estimates the value-added that real estate agents provide in the housing transaction process. We find that, on average Flat-Fee listings obtain prices that are 1%–5% higher compared to those obtained by a traditional listing agent and take no longer to sell. We also estimate the value-added of employing a buyer's agent in the transaction process and find similar results relative to a benchmark of dual-agent transactions where the buyer shares the agent with the seller. We recover the distribution of realtor value-added as listing agent and buyer's agent. With these distributions, we estimate the trade-off between price and days on the market by realtors. Focusing on a sample of repeat transactions, agents who obtain higher prices do not take longer to sell, suggesting that they are not simply setting higher reservation prices. Finally, we show that agents who sell homes for more also appear to pay more for a home when serving as a buyer's agent, indicating that the average agent does not possess exceptional negotiating skills or that such skills are overwhelmed by principal-agent problems.

### The Effect of Information Disclosure on Price Dispersion and the Time-on-Market: Evidence from the Housing Market

**Naoi, Michio<sup>1</sup>; Niikura, Hiroaki<sup>2</sup>; Seko, Miki<sup>2</sup>**

<sup>1</sup>Keio University, Japan; <sup>2</sup>Musashino University, Japan; [hniikura@musashino-u.ac.jp](mailto:hniikura@musashino-u.ac.jp)

This study investigates whether local price information affects price dispersion and the time-on-market in the rental housing market. In September 2016, Lifull Home's, one of the largest real estate marketing platforms in Japan launched a new service to provide highly localized price information (i.e., the average housing rent of the 20 closest existing listings at any location) in three western prefectures. Exploiting this unique information disclosure event and a large-scale rental listings dataset, we find that local price information substantially decreases quality-adjusted rent dispersion and shortens the time-on-market.

### Loss Aversion and Focal Point Bias: Empirical Evidence

**Ross, Stephen<sup>1</sup>; Zhou, Tingyu<sup>2</sup>**

<sup>1</sup>National Bureau of Economic Research & University of Connecticut; <sup>2</sup>Florida State University, United States of America; [tzhou@business.fsu.edu](mailto:tzhou@business.fsu.edu)

Recent research suggests that loss aversion may arise from anchoring or inattention, consistent with bounded rationality. Focal point bias (focus on round numbers or left digits) represents a well-documented, bounded rationality driven behavioral bias. We estimate a strong conditional correlation between an estimated loss aversion parameter and reporting round numbers using data from an earlier experiment. Then, we examine the effects of expected losses on housing sales prices, and we find that the positive effects of facing a loss on the eventual sales price are larger for sellers who selected a round mortgage amount during their initial purchase.



## ART-8: AREUEA: REITs

*Time:* Saturday, 06/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 5  
*Session Chair:* Bing Zhu, Technische Universität München, Germany  
*Session Discussant:* Sedat Ogeturk, Toronto Metropolitan University, Canada  
*Session Discussant:* Chongyu Wang, University of Hong Kong, Canada  
*Session Discussant:* Bing Zhu, Technische Universität München, Germany

### Granular Property Shocks and Commercial Real Estate Returns

Ling, David<sup>1</sup>; Wang, Chongyu<sup>2</sup>; Zhou, Tingyu<sup>3</sup>

<sup>1</sup>University of Florida; <sup>2</sup>University of Hong Kong; <sup>3</sup>Florida State University; [chw12010@hku.hk](mailto:chw12010@hku.hk)

The relation between private and public commercial real estate (CRE) returns has been studied extensively. The existing studies focus on the return correlation between private and public markets or the ability of one market to predict returns in the other. However, no prior study has established a causal relation between returns in these parallel CRE markets. We construct a new measure of idiosyncratic shocks to private real estate markets, granular property shocks (GPS). We show that this unexpected return risk in local property markets is subsequently capitalized into the prices of listed CRE companies. To establish causality, we adopt the Granular Instrumental Variable (GIV) approach recently developed by Gabaix and Koijen (2020, 2021). This approach allows us to isolate exogenous variation in the performance of the local markets in which a CRE manager invests that is independent of firm-manager factors. Our results suggest that idiosyncratic shocks from granular, private CRE markets, instrumented by the GIV, have a large and significant effect on listed REIT returns. Specifically, a one-standard-deviation increase in GPS predicts a 1.34% rise in quarterly REIT returns, which is 40% of its mean value.

### Does Putting All Your Eggs in One Basket Add Value? The Case of a Spatial Concentration of Same Industry Firms

Liu, Crocker<sup>3</sup>; Zheng, Chen<sup>2</sup>; Zhu, Bing<sup>1</sup>

<sup>1</sup>Technische Universität München, Germany; <sup>2</sup>University of Reading; <sup>3</sup>Cornell University; [b.zhu@tum.de](mailto:b.zhu@tum.de)

What are the valuation consequences when a building or its surrounding neighborhood is occupied primarily by a concentration of firms in the same industry? We find that office buildings have higher rents and a price premium if they are the beneficiaries of these agglomeration economies with knowledge spillovers the most likely channel of these agglomeration gains. Our results indicate that, for office buildings, agglomeration benefits exist at both the horizontal and vertical spatial levels. The results remain robust when we use specialization instead of density as the agglomeration measure. We also find that the stock market reacts favorably to buildings that enjoy these agglomeration economies. REITs' experience positive abnormal returns when acquiring a building located in a cluster of firms in the same industry, and negative abnormal returns when disposing of a building with a sizeable anchor tenant.

### An Efficient Markets Exploration into Economic Efficiency Measures: A Data Envelopment Analysis on Canadian REITs

Ogeturk, Sedat; Tirtiroglu, Dogan; Hernandez, Tony

Toronto Metropolitan University, Canada; [sogeturk@ryerson.ca](mailto:sogeturk@ryerson.ca)

This paper produces the first-ever empirical evidence on various measures of economic efficiency of REITs in Canada. It explores whether the stock market adequately prices the information inherent in these measures or leaves the door open for insider trading. This paper progresses in two empirical stages using manually collected quarterly accounting data on C-REITs for the period between 1.1.2009-31.12.2021. The first stage uses the Data Envelopment Analysis (DEA) technique in the production of scale efficiency measures defining REITs' total expense as the input and total assets as the output variables. The second stage takes the economic efficiency measures from the first stage and uses them as the main independent variable, along with a number of control variables, in exploring whether these measures exhibit any statistical significance in an efficient markets model with quarterly stock returns as the dependent variable. A finding of no contemporaneous or lagged statistical relation between stock returns and the economic efficiency measures supports the view that the financial markets operate efficiently. A finding of such relation, however, supports the view that profitable trading opportunities may exist. This begs the question of who can benefit from this type of information.

## ART-9: AREUEA: Residential Real Estate

*Time:* Saturday, 06/Aug/2022: 10:00am - 12:00pm · *Location:* Hitotsubashi 6

*Session Chair:* Sean Wilkoff, University of Nevada Reno, United States of America

*Session Discussant:* Changwei Zhan, National University of Singapore, Singapore

*Session Discussant:* Sean Wilkoff, University of Nevada Reno, United States of America

*Session Discussant:* Masaki Mori, EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland, Switzerland

*Session Discussant:* Prabath Suranga Morawakage, Griffith University, Australia, Australia

### Amazon is Coming to Town: Information and Housing Market Efficiency

**Wilkoff, Sean<sup>1</sup>; Yoshida, Jiro<sup>2</sup>; Chen, Yifan<sup>2</sup>**

<sup>1</sup>University of Nevada Reno, United States of America; <sup>2</sup>Pennsylvania State University; [swilkoff@unr.edu](mailto:swilkoff@unr.edu)

This study provides evidence of informational efficiency in the housing market, where prices fully incorporate available information. We use Amazon's progressive disclosure of its new headquarters locations in Virginia and New York to distinguish changes in the public's knowledge. Using a spatial difference-in-differences approach, we test whether housing prices increase before Amazon's public announcements. Housing prices near the Virginia headquarters exhibit 4.9% premia before Amazon's decision but no additional increase upon decision. Price premia for New York reach 17.5% before decision but disappear once Amazon cancels the headquarters. Other finalist cities exhibit no price premia, precluding the possibility of speculation.

### Local Determinants of Herding and Reverse Herding Behaviour in US Housing Markets

**Pollock, Matthew<sup>1</sup>; Mori, Masaki<sup>2</sup>; Wu, Yi<sup>1</sup>**

<sup>1</sup>University of Reading, United Kingdom; <sup>2</sup>EHL Hospitality Business School, HES-SO, University of Applied Sciences and Arts Western Switzerland; [masaki.mori@ehl.ch](mailto:masaki.mori@ehl.ch)

This study examines the economic and real estate characteristics that determine local variation in observed herding and reverse herding behaviour in US housing markets.

We find that house price growth, more educated populations and more elastic land supply create an overconfident context for reverse herding, and that a higher price-to-income ratio is a strongly significant predictor of herding. We also find that higher levels of homeownership are associated with rational market outcomes.

Our results are consistent and robust across linear and non-linear estimations.

As housing markets possess unique characteristics such as local variation and information asymmetries, they exhibit irrational behaviour that differs markedly from equity markets, hence motivating the equal importance we attach to the less researched concept of reverse herding. We also examine which characteristics broadly determine irrational behaviour, as well as the specific herding and reverse herding behaviour.

### A Win-Win Partnership for Affordable Housing Solutions by Connecting Responsible Investors, Housing Associations, and Government

**Morawakage, Prabath Suranga; Earl, George; Roca, Eduardo; Liu, Benjamin; Omura, Akihiro**

Department of Accounting, Finance, and Economics, Griffith Business School, Griffith University, Australia; [prabath.morawakage@griffithuni.edu.au](mailto:prabath.morawakage@griffithuni.edu.au)

This study aims to demonstrate that the affordable housing submarket is a profitable and impactful investment that serves the need of responsible investors. In doing so, we compare the performances of residential housing submarkets and responsible investments in Australia between 2010 and 2019. By analyzing the downside risk and risk-adjusted returns such as the Sortino ratio and excess return to value at risk, we show that investing in affordable housing submarkets has more downside protection while offering higher risk-adjusted returns than selected responsible investments in Australia. The finding on the defensive risk profile of the affordable housing market is confirmed by our focus group discussions with the industry experts. Moreover, our correlation analysis shows that the affordable housing submarket can improve the portfolio performance of responsible investors. Finally, we conclude that the affordable housing sector in Australia has the potential to attract responsible investments to increase the supply of affordable houses at a lower cost.

### Pricing and Learning of Developers in the Presale Housing Market

**Agarwal, Sumit; Qin, Yu; Zhan, Changwei**

NUS Business School, National University of Singapore, Singapore; [zhanchangwei@u.nus.edu](mailto:zhanchangwei@u.nus.edu)

Utilizing a transaction-level dataset of presale private properties in Singapore over 20 years, this paper investigates the price dynamics of properties since the project launching. Our results indicate that for a newly developed and transacted residential project, its presale prices go up approximately 1% every 100 days since the launching date. By matching transaction data with developer information, we find that developers tend to underprice their properties. Meanwhile, they also learn from experience and adjust prices higher in subsequent projects. Our study discloses the pricing trends and provides new evidence of learning on the housing market.

## ART-10: AREUEA: Housing Cost and Supply

Time: Saturday, 06/Aug/2022: 10:00am - 12:00pm · Location: Hitotsubashi 7

Session Chair: Tsur Somerville, UBC, Canada

Session Discussant: Hsi-Ling Liao, New York University, United States of America

Session Discussant: Carlos Hurtado, University of Richmond, United States of America

Session Discussant: Tsur Somerville, UBC, Canada

### Supply and Demand Responses to a Tax on Rental Housing: Evidence from Iran

Hurtado, Carlos<sup>1</sup>; Albouy, David<sup>2</sup>; Nafari, Kaveh<sup>3</sup>

<sup>1</sup>University of Richmond, United States of America; <sup>2</sup>University of Illinois, United States of America; <sup>3</sup>Deloitte, United States of America; [churtado@richmond.edu](mailto:churtado@richmond.edu)

We use a unique administrative dataset on housing transactions in Tehran to provide evidence on the incidence and distortionary effects of taxes on rental properties. We exploit a particular feature of the tax code in the Tehran rental market, where the tax-exemption threshold depends on the property's size. Substantial bunching occurs below the tax cutoff, suggesting strong behavioral responses to the tax kink. We also find higher after-tax rents above the kink. Based on these variations, we develop a structural framework with property taxes and filing costs to estimate the price elasticities of housing size supply and demand. We estimate a mid-run (10-year) price elasticity of housing size supply of 1.36 and price elasticity of housing size demand of -0.17. We find high, but incomplete pass-through of the rental tax, implying that renters bear most filing costs.

### Taxing Vacancy: Effects on Affordability and Rental Housing Supply

Somerville, Tsur<sup>1</sup>; Wetzell, Jake<sup>2</sup>

<sup>1</sup>UBC, Canada; <sup>2</sup>Stada Analytics; [tsur.somerville@sauder.ubc.ca](mailto:tsur.somerville@sauder.ubc.ca)

This paper studies the effect of taxes on vacant housing on house prices, transactions, and the transition of units into the rental stock. The paper analyzes the effect of a tax on vacant units by the Province of British Columbia (Canada). The tax applied to all owners of vacant property, with higher rates for "foreigners" and "world-wide earners", those with Canadian residency, but with the majority of household income not declared on Canadian taxes. We find that the tax leads to lower sales prices by those subject to the tax, lower prices in areas where more property owners pay the tax, and that those paying the tax are more likely to sell their units, if they are world-wide.

### The Effect of Zoning Regulations on Local Housing Supply and Demand: Evidence from New York City

Liao, Hsi-Ling

New York University, United States of America; [hll271@nyu.edu](mailto:hll271@nyu.edu)

Many large, economically successful cities continue to face housing affordability challenges. Some local governments try to tackle this issue by relaxing land-use regulations and increasing the residential capacity of land that can be developed. This type of "upzoning" policy aims to increase housing supply and lower local rents and housing prices. However, upzoning can also create an amenity effect that attracts high-income households and leads to gentrification and higher housing prices. In this paper, I study the effect of 2004-2013 New York City upzoning on local housing supply, prices, rents, and residential mobility patterns using a difference-in-difference method. By exploiting the granularity of the data at the building level and the plausibly exogenous boundary of upzoned areas, I compare the upzoned areas and the areas slightly farther away from the boundary before and after upzoning. This paper also uses unique data with individual-level address history to examine the mobility patterns of in-migrants and incumbent residents. Specifically, I study how upzoning changes the characteristics of the in-migrants and the likelihood of minority residents being displaced to less desirable neighborhoods. Preliminary findings show that housing supply increased after upzoning, but there is also suggestive evidence of increased housing prices among condo properties.

## **ASV-1: AsRES: Real Estate Investment**

*Time:* Saturday, 06/Aug/2022: 1:00pm - 3:00pm · *Virtual location:* AsRES-Virtual 1  
*Session Chair:* Song Shi, University of Technology Sydney, Australia  
*Session Discussant:* Monsurat Ayojimi Salami, Ankara University, Turkey, Turkey  
*Session Discussant:* Sibongile Zwane, Wits University, South Africa  
*Session Discussant:* Bingyang Ye, UTS, Australia  
*Session Discussant:* Song Shi, University of Technology Sydney, Australia

### **Herding Volatility Patterns in Bonds, Equities and Listed Real Estate Markets**

**Zwane, Sibongile**

Wits University, South Africa; [317085@students.wits.ac.za](mailto:317085@students.wits.ac.za)

The literature on herding behaviour focusing specifically on the volatility risks is very thin, in particular when the investigation contrasts developed and emerging markets. This study investigates volatility risk during herding in the U.S., the UK, Taiwan and South Africa. In order to extrapolate volatility risk behaviour, the modelling is centred both on univariate [i.e., GARCH(1,1) and Markov-regime switching] and multivariate (i.e., vector autoregressive) analyses. Fundamentally, the results illustrate that volatility risk herd into the developed markets from the emerging markets irrespective of the product range – equities, bonds, and real estate. Interestingly, the integration of the products would lead to huge, bigger and more efficient global markets. These findings have implications for investors and policy makers around the globe

### **Diversification in Real Estate Asset Pricing: Evidence from Listed A-REITs**

**Ye, Bingyang; Shi, Song; Scheule, Harry**

University of Technology Sydney, Australia; [bingyang.ye@uts.edu.au](mailto:bingyang.ye@uts.edu.au)

Previous studies focus on the beta of REITs compared to other asset classes. This research presents evidence of the time-varying diversification benefit of property type concentration on REIT risk reduction with the construction of a diversification indicator (Herfindahl Hirschman Index). Based on Australian REITs over 2001 to 2021, we find that specialised REITs generally have lower beta than diversified REITs, except for crisis time. Secondly, specialised REITs have higher risk-adjusted returns than diversified REITs. Thirdly, A-REITs with a larger market capitalisation and a higher book-to-market ratio are associated with higher returns. These findings indicate that specialised funds are better investments compared to diversified funds despite the crisis periods, providing guidance for investors in that asset allocation to A-REITs with higher property type concentration adds value to portfolio performance and diversification. Investors also need to pay attention to the market conditions and improve the risk profile of their portfolios by assigning weights of specialised REITs accordingly.

### **Co-movements and volatility spillovers in Turkey's real estate prices and capital market**

**Salami, Monsurat Ayojimi; Tanrivermis, Harun; Turel, Tevfik**

Ankara University, Turkey, Turkey; [masalami@ankara.edu.tr](mailto:masalami@ankara.edu.tr)

Concerning the previous and recent crises such as the 2008 Global financial crisis and the Covid-19 pandemic, inferences could be made that real estate has been badly affected and the housing price is increasing spontaneously. An increase in the housing price is two sides of a coin; it might have been evaluated as an increase in FDI to Turkey at the same time it might reduce housing affordability for the citizens. Still, there is a need for balancing these two extreme forces in Turkey's housing markets.

As a result of those, the purpose of this study is to examine the co-movement and spillover in Turkey's real estate prices and capital market. Monthly frequency data that ranges from 2003-2022. This study will focus on the three largest provinces in Turkey; Istanbul, Izmir, and Ankara. These three provinces have different characteristics that may contribute to different experiences in their real estate prices. As a result, this study will use both co-integration analysis and GARCH models to capture the co-movement and spillover effect. The findings from this study are expected to reveal co-movement as well as volatility spillover. The findings are expected to contribute to decision-making of policymakers in Turkey and other stakeholders.

### **Designing mortgage contracts for financial resilience in mortgage lending**

**Mai, Chung; Scheule, Harald**

The University of Technology Sydney, Australia; [chung.mai@uts.edu.au](mailto:chung.mai@uts.edu.au)

This paper designs new residential mortgage contracts to enhance financial system resilience. We propose two ex-ante contracts based on income expectations and credit risk by loan age. We benchmark these contracts to 30-year fixed-rate mortgage contracts (FRMs) and ex-post contracts where cashflows are deferred conditional on financial constraints. The proposed contract innovations reduce illiquidity but increase leverage. The combined effects reduce idiosyncratic and systematic default risk as well as economic and regulatory capital. Their market-wide adoption in the US will result in efficiency gains of \$15 to 41 billion based on an analysis of lower credit spreads to consumers and capital costs to lenders, enhancing national welfare.

## ASV-2: AsRES: Housing Price Analysis

*Time:* Saturday, 06/Aug/2022: 1:00pm - 3:00pm · *Virtual location:* AsRES-Virtual 2  
*Session Chair:* Weida Kuang, Business School, Renmin University of China, China, People's Republic of  
*Session Discussant:* Ti-Ching Peng, National Taipei University, Taiwan  
*Session Discussant:* Jinwon Kim, Sogang University, Korea, Republic of (South Korea)  
*Session Discussant:* Yiqi Huang, Renmin University of China, China, People's Republic of

### The effect of demographic changes on house prices: A macro-scale analysis in Japan

**Peng, Ti-Ching**

Department of Real Estate and Built Environment, National Taipei University, Taiwan; [tcpeng@mail.ntpu.edu.tw](mailto:tcpeng@mail.ntpu.edu.tw)

The ageing trend in recent years is simply unstoppable in Japan; the increase in aged population, which may indicate sound and advanced medical system, may nonetheless imply the increasing burden imposed upon working population, and thus lower the demand for housing and alter the variation of house prices. Therefore, besides other economic factors, this paper proposes to use demographic dividend – the ratio of dependent population (population aged 0-14 and the population aged 65 and over) to working population (aged 15-64) – to represent the change in demographics.

This paper adopts dynamic panel model (Holtz-Eakin & Rosen 1988), which has not yet applied in housing studies Japan, to examine the effect of these fundamentals on house prices of 47 prefectures in Japan. The advantage of this model is to take the dynamics of house prices into account, which thus generates more consistent and efficient estimators than conventional panel analyses.

The empirical findings of this paper should offer insights for further studies in macro-analyses on house prices; moreover, the examination of the demographic dividend, which captures the influence of elders on housing markets, shall also offer insights to other countries with ageing issues.

### What flattened the house-price gradient? The role of work-from-home and decreased commuting cost

**Kim, Jinwon<sup>1</sup>; Long, Dede<sup>2</sup>**

<sup>1</sup>Sogang University, Seoul, South Korea; <sup>2</sup>California State University, Long Beach; [jinwonkim@sogang.ac.kr](mailto:jinwonkim@sogang.ac.kr)

During the pandemic, housing prices have increased significantly in most cities in the US. The housing price appreciation rate differs by location within city. Recent studies have found that suburban locations where residential buildings are mainly located have experienced larger increases in housing prices than locations nearer the job center, which implies that bid-price curves for housing have gotten flattened during the pandemic. While the increase practice of work-from-home (WFH) is an appealing explanation for the changes in locational preferences for households in the US, the change in the spatial pattern of housing prices may also be due to the large reduction in the level of congestion for most commute routes in the US and the resulting steep decline in commuting costs. In this paper, we investigate which worker, remote worker or commuting worker, has contributed more to the flattened housing prices curves. We find that commuting cost contributed much more significantly to the flattened housing price curves than the WFH potential variable, which implies that the recent change in home prices is mainly driven by preference changes of commuting workers rather than those who stay at home for remote working.

### Does home seller marriage matter? Evidence from China's housing resale market

**Kuang, Weida; Huang, Yiqi**

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The extant literature has rarely examined the impact of home-seller's marital status on housing market. Employing the housing resale transaction databases in 17 cities in China from June 2016 to October 2020, this research finds that compared with the unmarried home-sellers, the married home-sellers have stronger investment motivation and melioration motivation to sell their houses with higher transaction prices and premium rates. The divorced home-sellers have stronger melioration motivation and liquidity motivation to sell properties, while the widowed home-sellers have stronger liquidity motivation to sell properties. The divorced home-sellers and the widowed home-sellers both have lower transaction prices and premium rates, and shorter time on market. The home purchase restriction (HPR) intensifies home-sellers' investment motivation and liquidity motivation, and alleviates their melioration motivation. Hence, policymakers should consider the heterogeneous shocks of home-seller's marital status on the supply of housing resale market.

### Private Rental Housing Affordability in Malaysia: The Tale of Three Races

**Tu, Yong<sup>1</sup>; Poon, Wai Ching<sup>2</sup>; Wang, Yaopei<sup>1</sup>; Ng, Jason Wei Jian<sup>3</sup>; Murugasu, Thangarajah @ M. Thiyagarajan<sup>4</sup>; Rangel, Gary John<sup>5</sup>**

<sup>1</sup>National University of Singapore; <sup>2</sup>Universiti Teknologi PETRONAS; <sup>3</sup>Sunway University; <sup>4</sup>Monash University Malaysia; <sup>5</sup>Universiti Sains Malaysia; [thangarajah.thiaqu@monash.edu](mailto:thangarajah.thiaqu@monash.edu)

With Malaysian housing rated as severely unaffordable based on the median multiple ratio, households whose incomes preclude them from owning a home are increasingly turning to the rental markets. However, a neglected variable in the contemporary discussions of affordability is the quantitative link between the level of racial segregation in the city and the decline of rental affordability due to potential racial discrimination or preferences of landlords. This is pertinent for Malaysia given its multi-ethnic society comprising the Malays, Chinese and Indians. This study investigates the extent to which Malaysia is racially segregated and whether it is accentuated by racial discrimination of the landlords. To uncover the racial segregation phenomenon, we construct the racial segregation index, use micro-level rental data to quantify the relationship between the level of racial segregation in the city and its effects on rental fees, supplementing the empirical results with qualitative findings from semi-structured interviews. The results show Chinese tenants pay the highest rents among the three ethnic groups, regardless of landlords' race. The rental differentials across the ethnic groups are a reflection of the ethnic groups' economic standards. No evidence of racial discrimination in Malaysia's renting practices as landlords are primarily economically driven.

## ASV-3: AsRES: Urban Planning in Aging Society

Time: Saturday, 06/Aug/2022: 1:00pm - 3:00pm · Virtual location: AsRES-Virtual 3

Session Chair: Takako Idee, Seikei University, Japan

Session Discussant: Daikun Wang, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

Session Discussant: Jinyi Xiao, Tsinghua University, China, People's Republic of

Session Discussant: Yaopei Wang, National university of Singapore, China, People's Republic of

Session Discussant: Takako Idee, Seikei University, Japan

### The Status Quos and Causes of the Synchronous Aging of Population and Communities in Urban China

**Xiao, Jinyi**

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According to China's Seventh National Population Census, there has been severe challenges for the realization of healthy aging. Previous studies have proved the adverse effects of poor housing conditions on health status of the elderly, this study focused on the stylized fact of "the synchronous aging of people and housings" in Urban China, which would hamper the healthy aging process. By conducting theoretical analysis with residential mobility theories and empirical analysis with China's 1% national population sample survey and the China Family Panel Studies (CFPS), it was found that the proportion of the elderly living in old communities was 9.9% significantly higher than that of the young and middle-aged, making old residents were more likely to be exposed to the healthy risk because of the poor housing conditions. Then, it was found more pronounced in cities with rapid economic development, low second-hand housing prices and sufficient public infrastructure supplies. Besides, the elderly who were married, had more children, poorer or retired from state industry usually lived in older houses. Findings suggest that the government should foster more collaborations between advancing the urban renewal and cultivating the pension system to accelerate the regeneration for promoting healthy aging in China.

### Ageing in Place and Urban Planning

**Tu, Yong; Wang, Yaopei**

National university of Singapore; [biztuy@nus.edu.sg](mailto:biztuy@nus.edu.sg), [wangyp@nus.edu.sg](mailto:wangyp@nus.edu.sg)

This paper discovers a spatial mismatch between the Singapore elderly population distribution and the availability of elderly friendly physical resources needed for ageing in place. We first assess the supply of elderly friendly physical resources at neighborhood level using network analysis method. As a robustness test, we visualize the pattern of mismatch using Kernel Density tool and Raster Calculator. Then, we estimate the extent of spatial mismatch between elderly population distribution and the availability of elderly friendly physical resources using a model of spatial mismatch index (SMI) by age cohort. The results show that most of common elderly friendly physical facilities get the highest SMI score in the 65-74 age cohorts, so does the spatial mismatch of active ageing facilities. The findings support that there exists spatial mismatch between the distributions of elderly population and ageing in place physical resources, which illustrates urgent demand for Singapore government to pay more attention to the matching of elderly friendly physical facilities with different ageing periods.

### Housing Affordability and Donut Effect in England and Japan

**Idee, Takako<sup>1</sup>; Kurahashi, Toru<sup>2</sup>**

<sup>1</sup>Seikei University, Japan; <sup>2</sup>Dokkyo Unievrstity, Japan; [idee@econ.seikei.ac.jp](mailto:idee@econ.seikei.ac.jp)

Affordability problem seems to have increased its severity in many countries. We estimate the housing price-to-income ratio and regional mobility using 2011-2020 panel data in England and Japan. We found some striking difference of housing market and inter-regional mobility between these countries. The effect of income inequality may have negative effect on housing affordability in England, while cost burden of education for children is significant in Japan.

### Short-Term Measures in Long-Term Housing Policy: Lessons from Transitional Housing Programs in Hong Kong

**Wang, Daikun<sup>1</sup>; Huang, Yaoxuan<sup>2</sup>; Li, Victor, Jing<sup>1,2</sup>**

<sup>1</sup>Department of Geography and Resource Management, The Chinese University of Hong Kong; <sup>2</sup>Institute of Future Cities, The Chinese University of Hong Kong; [derekwang@link.cuhk.edu.hk](mailto:derekwang@link.cuhk.edu.hk)

Hong Kong Special Administrative Region (HKSAR) has proposed the Transitional Housing Project (THP) since 2018. The main purpose of this housing policy is to rent to families with housing difficulties at affordable rents, thereby alleviating the living difficulties of public rental housing (PRH) applicants and other people with poor living conditions. In Hong Kong, 2.1 million people (nearly one-third of the total population) live in about 0.8 million PRH units (as of December 31, 2021). There are currently about 150,000 PRH applications, and the average waiting time has increased from the ideal target of 3 years to 5.9 years in 2021. This article reviews the emergence and development of THP around the world, and provides a comprehensive review and summary of THP in Hong Kong (June 2018-March 2022). At the same time, this paper focuses on the limitations and possible solutions of current THP. Finally, critical analysis and case discussions have been carried out on core issues and conflicts (such as land ownership, reconstruction/newly built housing, construction methods, project site selection, and operating entities). In this way, it can provide useful suggestions for the better development of transitional housing in Hong Kong and other countries or regions in the world.



## **ASV-4: AsRES: Commercial Real Estate Investment**

*Time:* Saturday, 06/Aug/2022: 3:30pm - 5:30pm · *Virtual location:* AsRES-Virtual 1

*Session Chair:* Sandy Padilla, CBRE Investment Management, Australia

*Session Discussant:* Sandy Padilla, CBRE Investment Management, Australia

*Session Discussant:* Lingshan Xie, University College London, United Kingdom

*Session Discussant:* Michael Craig Lindsay, Macquarie University, Australia

### **Work from Home and Commercial Real Estate – Evidence from Stock Markets**

**Milcheva, Stanimira; Xie, Lingshan**

University College London, United Kingdom; [lingshan.xie.18@ucl.ac.uk](mailto:lingshan.xie.18@ucl.ac.uk)

We explore investor expectations about the effects of work from home (WFH) for the commercial real estate sector. We assess how differences in WFH exposure of listed real estate investment trusts (REITs) in the largest European economies – Germany, France and the UK – during the early stages of the Covid-19 pandemic affect their abnormal returns. We measure WFH exposure as REIT's exposure to the office sector, central business districts (CBDs) and WFH tenants. To capture tenant's strong commitment to working from home in the future, we construct a variable for tenant WFH intensity using tenant WFH announcements between March and June 2020. We show that REITs with higher WFH exposure have significantly negative abnormal returns independently of their domicile, sector specialization or CBD exposure. Equity investors look at REIT portfolio composition and WFH announcements by tenants to assess the likelihood of WFH in the long term and the associated drop in office demand.

### **Real options in real estate systematic literature review**

**Lindsay, Michael Craig**

Macquarie University, Australia; [michael.lindsay1@hdr.mq.edu.au](mailto:michael.lindsay1@hdr.mq.edu.au)

This systematic literature review examines the evolution of research on real options in real estate. The literature shows that real options can account for a significant portion of real estate asset value. It demonstrates methods to value real options in real estate but offers little evidence they are in widespread use. The tools developed to value real options in real estate can also guide real option exercise and are thought superior to net present value analysis for capital budgeting when outcomes are uncertain. Also among key insights of the literature is the identification of characteristics of real estate markets and assets that impact real estate owner flexibility, and in doing so affect real option value and exercise decision making. These characteristics are among possible reasons explored in this review why uptake of real option valuation tools by real estate practitioners appears to be limited. This review submits there are factors at play increasing the likelihood of these tools being adopted in the future, including increased uncertainty driven by societies' changing real estate requirements. The search for well-designed modifications of real options valuation tools, with the aim of stimulating their uptake, forms the basis of suggestions for future research.

### **Analyzing the performance of Green Star office buildings in Australia**

**Padilla, Sandy; Taylor, Shane; Theebe, Marcel; Boing, Rens**

CBRE Investment Management; [sandy.padilla@cbreim.com](mailto:sandy.padilla@cbreim.com)

This paper analyzes the performance of Green Star office buildings in Australia's three largest office markets (Sydney, Melbourne and Brisbane) using Property Council of Australia/MSCI Annual Property Index data. The COVID pandemic and climate change concerns, have led to increased interest among institutional investors in green buildings for health, well-being and carbon footprint reduction considerations. Thus, it is important to understand how Green Star office has performed on a relative basis for both investment and operations.

Utilizing a paired t-test, this paper analyzed historic data from Q1 2009 through Q1 2022 to compare the quarterly mean performance of Green Star prime office with the quarterly mean performance of all prime office over 53 observations for variables such as total return, vacancy and net operating costs. Key findings are that Green Star prime office had higher total returns, lower vacancy, higher rent receivable per sqm and lower net operating costs per sqm, relative to all prime office and these are significant at the 5% level for the period of study.

## ASV-5: AsRES: Institutional Issues of Housing Market

*Time:* Saturday, 06/Aug/2022: 3:30pm - 5:30pm · *Virtual location:* AsRES-Virtual 2

*Session Chair:* Shinichiro Iwata, Kanagawa University, Japan

*Session Discussant:* Yehua Huang, Renmin University of China, China, People's Republic of

*Session Discussant:* Qiyao Zhou, University of Maryland, United States of America

*Session Discussant:* Jiangnan Zeng, University of Pittsburgh, United States of America

### Under control? Price ceiling, misallocation, and inequality: Evidence from the housing market in Shanghai

**Zhou, Qiyao**

University of Maryland, United States of America; [qiyaoz@umd.edu](mailto:qiyaoz@umd.edu)

This paper develops a model to study the general equilibrium effect of price control policies in the housing market in Shanghai. The government has imposed a price ceiling on new houses in Shanghai since 2017 to control the housing price growth. The proposed framework extends the existing literature by allowing the consumers to be forward-looking. Consumers can choose to wait, pay the entry/waiting cost, and re-enter the market if the houses are not allocated to them currently due to the excess demand. I assemble a new dataset that contains information about the sales and characteristics of the new and existing houses and the households' new house lottery participation records. The structural estimation results suggest that the welfare loss associated with the price ceiling is around 10.4 billion US dollars from 2018 to 2020. Entry/waiting cost accounts for 37% of the total welfare loss. Richer households face a smaller waiting cost, which impairs the distributional benefits of the price ceiling policy. Comparing these estimates with those from the model with myopic consumers highlights several important biases that arise when the forward-looking consumer consideration is ignored. I also use the model to study the welfare implications of alternative policies.

### Housing market regulations and spatial inequality

**Zeng, Jiangnan**

University of Pittsburgh, United States of America; [jiz198@pitt.edu](mailto:jiz198@pitt.edu)

Housing prices more than tripled in China in the past decade, especially in big cities. The central and local governments took many steps to cool off the overheating housing market; among them, the most stringent one is the 2016-2017 wave of regulation, which tightens home purchasing restrictions on residential parcels by increasing down payment ratio requirement for mortgages. In this paper, I use over 1.2 million housing market transaction records in five major cities to study their housing market regulations impact on housing price dispersion and spatial inequality in amenities within a city. The statistical analysis shows that the 2016-2017 wave regulation curbed the increasing price trend and decreased city-level price dispersion. However, the regulation has a differentiated impact on housing with different demand elasticity levels. The regulation expands the housing price in high-quality school districts by 2.8%, and the price in areas near subway stations by 3.6%, enlarging the spatial inequality within the city.

### Credit Risk of Political Incentives: Evidence from a Regression Discontinuity Design

**Huang, Yehua; Kuang, Weida; Zhao, Daxuan**

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This paper documents how the political incentives for local government leaders affect the credit risk and coupon rate of local government bonds. The CPC secretaries of prefectural cities only could be prompted before the age of 58 based on the Chinese political norm. Thus, these party secretaries lose political incentives after 58 years old. We use a regression discontinuity design (RDD) approach to check the discontinuity of bonds' coupon rate issued by these party secretaries. Local government bonds issued by leaders with political incentives have higher coupon rate, implying higher credit risk. We also find that bonds issued by younger leaders are more likely to occur negative events and younger leaders invest more on risky infrastructure.

## ASV-6: AsRES: Evaluation Method of Real Estate

*Time:* Saturday, 06/Aug/2022: 3:30pm - 5:30pm · *Virtual location:* AsRES-Virtual 3  
*Session Chair:* Nikolai Trifonov, Council of Valuers' Associations of Eurasia, Belarus  
*Session Discussant:* Syeda Marjia Hossain, University of Reading, Uzbekistan  
*Session Discussant:* Nikolai Trifonov, Council of Valuers' Associations of Eurasia, Belarus  
*Session Discussant:* Aida Julia Aminuddin, UNIVERSITI TEKNOLOGI MALAYSIA, Malaysia  
*Session Discussant:* Jiayu Zhang, Harbin Institute of Technology, China, People's Republic of

### Build-up Method for Calculating of Discount Rate: Elaboration

**Trifonov, Nikolai**

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In the second half of the last century the relationship between risk and return of a stock in exchange trading has been proven statistically in CARM and ARM with modifications, which are based on the selection of the risk-free rate. Later, when formulating the build-up method, these ideas were transferred without any justification to the valuation of enterprises that do not list their securities on the stock exchange. In it, the discount rate R was also proposed to be written as the sum of interest rates:

$$R = R_0 + R', (*)$$

where  $R_0$  is the risk-free rate and  $R'$  is the risk premium(s). The formula (\*) and others used in the build-up method are not precise. Using an analogy with the equation of returns by I. Fisher, an elaboration of the formulas in the build-up method is proposed. Instead of the expression (\*), we should write

$$1 + R = (1 + R_0)(1 + R').$$

A set of four independent risks is given for use in the method in general case: risk-free rate and country risk premium (CRP), branch risk premium, asset risk amendment. Recommendations are given on finding risk-free rate for various currencies, on calculating CRP, branch risk premium, a.o.

## A NEURAL NETWORK FOR FORECASTING HOUSE PRICE INDEX

**Aminuddin, Aida Julia; Adi Maimun, Nurul Hana**

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Forecasting is a technique that uses historical data in determining the direction of future trends. The current hedonic model used for forecasting the house price index in Malaysia shows its drawbacks and restricts the Malaysian House Price Index's effectiveness in forecasting the market trends. This study aims to forecast the house price index using an artificial neural network (ANN) and permits nonlinear relationships which are fundamental in the Hedonic model theory and thus avoid multicollinearity problems plaguing the Hedonic model. The present article set out to analyse the existing literature on the advanced model in forecasting the house price index. Guided by the PRISMA Statement (Preferred Reporting Items for Systematic reviews and Meta-Analyses), a systematic review of the Scopus, Web of Science and Google Scholar as supported databases to identify 21 related studies. Further review of these articles resulted in four main themes – house price index, model to determine house price index, forecasting market trends and advanced model for forecasting house price index. Several recommendations are highlighted related to conducting more qualitative studies, having specific and a standard systematic review method for guiding research synthesis in the context of forecasting house price index and practising complementary searching techniques.

## Evaluation and promotion strategy of urban resilience : Based on Trio Spaces

**Zhang, Jiayu; Yang, Xiaodong**

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How to realize the building of urban resilience and improve the strength of urban resilience has become an important content of the construction of a country. In view of this phenomenon, relying on the framework of trio spaces (physical space, social space and information space), the evaluation system of urban resilience is established. The evaluation model of urban resilience is constructed by using CRITIC-entropy weight and cloud evaluation method. Four sub provincial cities in Northeast China, Harbin, Changchun, Shenyang and Dalian, are selected as the analysis objects, and the resilience of each city is comprehensively evaluated and spatially evaluated. The empirical results can not only determine the resilience strength of existing cities, but also explore the shortcomings of the resilience building of physical space, social space and information space of each city through the comparison. It will help to put forward the strategies to promote the building of urban resilience and enhance the strength of urban resilience.

## UK commercial real estate valuation practice: does it now build in sustainability considerations?

**Hossain, Syeda Marjia; van de Wetering, Dr. Jorn; Devaney, Dr. Steven; Sayce, Prof. Sarah**

University of Reading, United Kingdom; [s.m.hossain@pgr.reading.ac.uk](mailto:s.m.hossain@pgr.reading.ac.uk)

This paper investigates the extent to which commercial property valuers in the UK refer to the RICS professional standards and guidance related to inclusion of sustainability in valuation reports. The level of data collection, analysis and reporting related to sustainability attributes is examined, as well as the perceived importance of these attributes to clients, and the value impacts. An online survey was conducted in 2019 of UK valuers that undertook commercial property valuation. The findings suggest reference to RICS standards and guidance on sustainability had improved since previous research reported by Michl et al. (2016), but data collection has not progressed much. UK valuers indicated that sustainability attributes were more of importance to owner occupiers than investors and lenders. In terms of how sustainability attributes were affecting market value and investment value, valuers indicated that only certification was influencing value to some extent. Other attributes related to energy and carbon, waste and water management, health and well-being were not having much impact on value. The findings also suggest quality of external environment may have some impact on investment value though not as much as certification. Therefore it indicated that consideration of sustainability was still limited within UK valuation practice.

## ARV-9: AREUEA: House Prices and Transactions

Time: Sunday, 07/Aug/2022: 7:30am - 9:30am · Virtual location: AREUEA-Virtual 1

Session Chair: Yanting Wu, Concordia University, Canada

Session Discussant: Yanting Wu, Concordia University, Canada

Session Discussant: Qiang Li, Deakin University, Australia

Session Discussant: Weida Kuang, Business School, Renmin University of China, China, People's Republic of

### An Alternative Measure of Lockdown Cost: The Impact of COVID-19 Restrictions on the Housing Market

Liang, Jian<sup>1</sup>; Li, Qiang<sup>1</sup>; Lee, Chyi Lin<sup>2</sup>

<sup>1</sup>Deakin University, Australia; <sup>2</sup>University of New South Wales; [qiang.li@deakin.edu.au](mailto:qiang.li@deakin.edu.au)

Many countries adopt lockdown measures to combat the coronavirus (COVID-19) pandemic. The lockdowns in Victoria (VIC), Australia, however, are unique in that the government divides VIC into two distinct areas using the Ring of Steel boundary and consistently places more restrictions on those within the boundary. We utilize this two-tier system to estimate residents' willingness to pay for "freedom" (i.e., fewer restrictions) on one side of the boundary versus the other; we argue that, in doing so, we provide an alternative measure of the indirect cost of lockdowns. We adopt a spatial difference-in-differences (SDID) design and use housing rental and sales data along the boundary between the two areas in VIC before and after the lockdowns during the pandemic to address the many confounding factors, including the COVID-19 health risk and heterogeneity in the socioeconomic responses to the pandemic. We find that VIC residents valued "freedom" at a rate of 3% to 6% of housing value.

### Seeing is Believing: The Impact of Buyers' Onsite Viewing Activities on Housing Transactions

Hu, Maggie Rong<sup>1</sup>; Kuang, Weida<sup>2</sup>; Li, Xiaoyang<sup>3</sup>; Shi, Yang<sup>4</sup>

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Buyers' onsite viewing is an important process of house transaction and is the direct measure of buyer search. Yet empirically we know little about the information revealed through a buyer's onsite viewing, and neither do we know about the impacts of buyers' onsite house viewings on transaction outcomes. Using a unique proprietary dataset which includes 4,397,652 onsite viewing records and 621,040 transaction outcomes from the largest real estate agency in China, we find that buyers who are more active in onsite viewings are associated with larger deal likelihoods, as well as higher purchase prices and greater chances of making over budget payment in completed deals. The findings suggest that a buyer's onsite viewing is a reflection of his or her housing demand. Buyers achieve improved deal likelihood from active searching. However, as they reveal their stronger demand to sellers through active onsite house viewings, they lose bargaining power and end up paying higher prices. To establish causality, we perform instrument variable regressions exploiting the exogenous variations in onsite house viewings caused by national basketball games that increase the opportunity cost of searching, and find consistent results.

### Conflicts of Interest and Agent Heterogeneity in Buyer Brokerage

Kryzanowski, Lawrence<sup>1</sup>; Wu, Yanting<sup>1</sup>; Zhou, Tingyu<sup>2</sup>

<sup>1</sup>Concordia University, Canada; <sup>2</sup>Florida State University, USA; [fredawyt.wu@gmail.com](mailto:fredawyt.wu@gmail.com)

This paper investigates the incentives of agents working with buyers (buying agents) under the fixed percentage commission system (FPCS) and the implications on housing market outcomes. Our model shows that the absence of a binding contract creates a risk of losing clients for buying agents, which helps mitigate the conflict of interest between buying agents and their clients. Both the buying agent's prediction accuracy regarding their client's reservation prices and the level of tolerance given by the buyer to the buying agent affect the binding force. Results from simulations and empirical analyses using house transactions in Canada support our model predictions.

## ARV-10: AREUEA: Residential Mortgages

Time: Sunday, 07/Aug/2022: 7:30am - 9:30am · Virtual location: AREUEA-Virtual 2

Session Chair: Raluca Roman, Federal Reserve Bank of Philadelphia, United States of America

Session Discussant: Yuting Huang, Capital University of Economics and Business, China, People's Republic of

Session Discussant: Egle Jakucionyte, Bank of Lithuania, Lithuania

Session Discussant: Raluca Roman, Federal Reserve Bank of Philadelphia, United States of America

Session Discussant: Kody Chinon Law, Cornell University, United States of America

### Emergence of Subprime Lending in Minority Neighborhoods

**Jakucionyte, Egle<sup>1,2</sup>; Singh, Swapnil<sup>1,3</sup>**

<sup>1</sup>Bank of Lithuania, Lithuania; <sup>2</sup>Vilnius University; <sup>3</sup>Kaunas University of Technology; [Ejakucionyte@lb.lt](mailto:Ejakucionyte@lb.lt)

Subprime lending is concentrated in minority neighborhoods. However, the literature has little evidence for what led to this concentration. We use the endorsement of credit scores in mortgage underwriting by the Government Sponsored Enterprises (GSEs) in 1995 to answer this question. We show that in minority neighborhoods prime lenders were substituted by subprime lenders and, as a result, the share of subprime lending in minority neighborhoods increased by 5 percentage points. Prime lenders with a stronger relationship with the GSEs reduced their lending in minority neighborhoods more and the level of securitization by the GSEs in minority neighborhoods also decreased.

### A Tale of Two Bailouts: Effects of TARP and PPP on Subprime Consumer Debt

**Berger, Allen<sup>2</sup>; Epouhe, Onesime<sup>1</sup>; Roman, Raluca<sup>1</sup>**

<sup>1</sup>Federal Reserve Bank of Philadelphia, United States of America; <sup>2</sup>University of South Carolina; [raluca.roman@phil.frb.org](mailto:raluca.roman@phil.frb.org)

High levels of subprime consumer debt can create social problems. We test the effects of relatively exogenous income and credit shocks on this debt from TARP and PPP bailouts during the Global Financial Crisis and COVID-19, respectively. We combine over 11 million consumer credit bureau records with bank, bailout, and local market data. We find subprime consumers with more local TARP banks significantly increased debt burdens subsequently driven primarily for mortgages, while more PPP bailouts are associated with reduced subprime debt, driven primarily by credit cards and auto loans. Findings are robust to instrumental variables and other identification techniques, and yield policy implications regarding bailout structures and strings attached to bailout funds.

### The Heterogeneity of Bank Responses to the Fintech Challenge

**Law, Kody Chinon; Mislav, Nathan**

Cornell University, United States of America; [kcl87@cornell.edu](mailto:kcl87@cornell.edu)

Previous studies researching the impact of fintech on mortgage lending have focused primarily on comparing fintech lenders to traditional bank lenders. We examine how bank lenders have responded to the growth of fintech lending, both as a whole and in terms of small and large banks, for both credit access and credit availability. In terms of credit access, fintech reduces total lending of traditional banks, the brunt of which is carried by small banks. This effect is greater for all banks in the refinancing sector. In the home purchase sector, mortgage costs increase for both types of banks in the presence of more fintech, but this effect is not seen in the refinancing sector. We view our results as evidence that fintech acts as a direct competitor to traditional banks in the refinancing sector of the mortgage market, but fragments the market in the home purchase sector.

### Disguised credit misallocation: Evidence from housing provident fund

**Huang, Yuting<sup>1</sup>; Kuang, Weida<sup>2</sup>**

<sup>1</sup>Capital University of Economics and Business; <sup>2</sup>School of Business, Renmin University; [huangyuting0@gmail.com](mailto:huangyuting0@gmail.com), [weidakuang@ruc.edu.cn](mailto:weidakuang@ruc.edu.cn)

Using a proprietary mortgage dataset from a typical city in China, we document an average of over 20 thousand credit amount premium for those bureaucrats than non-bureaucrats when they apply for the residential mortgage using the housing provident fund. Such preferential treatment disappears as with the central investigation of corruption. However, strikingly bureaucrats instead exhibit a higher likelihood of delinquency. We further explore heterogeneity in bureaucrats to understand better the underlying mechanisms. The effect is more pronounced for those officials working in the public sector and those with local Hukou, indicating a social cognition effect, and the effect also becomes stronger when the rank or the age of the official is higher, suggesting a higher reputation cost likely plays a role. Finally, we provide suggestive evidence of a larger wealth gap and more inequality in enjoying social welfare due to this discrimination in issuing mortgages.

## ARV-11: AREUEA: Corporate Finance and Real Estate

*Time:* Sunday, 07/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 3

*Session Chair:* Brent W Ambrose, Penn State University, United States of America

*Session Discussant:* David Hendrick Downs, Virginia Commonwealth University, United States of America

*Session Discussant:* Sanket Korgaonkar, University of Virginia, United States of America

*Session Discussant:* Shogo Sakabe, Columbia University, Japan

*Session Discussant:* Brent W Ambrose, Penn State University, United States of America

### The Agency Costs of (RMBS) Tranching

**Korgaonkar, Sanket**

University of Virginia, United States of America; [sanketk86@gmail.com](mailto:sanketk86@gmail.com)

Servicers are less likely to renegotiate delinquent loans in residential MBS pools that are more deeply tranching. A one standard deviation increase in tranching corresponds to a 14 percent decrease in loan modification relative to the mean. In highly tranching pools, servicers pursue fewer renegotiations that require costlier effort. These effects reflect greater investor dispersion and the greater diversity of issued securities which both result from tranching. Our results suggest that tranching increases agency costs, and document frictions that can arise from the use of multi-tiered capital structures.

### Place-Based Policies and the Geography of Corporate Investment

**LaPoint, Cameron<sup>1</sup>; Sakabe, Shogo<sup>2</sup>**

<sup>1</sup>Yale University; <sup>2</sup>Columbia University; [s.sakabe@columbia.edu](mailto:s.sakabe@columbia.edu)

Growing spatial inequality has led policymakers to enact tax breaks to attract corporate investment and jobs to economically peripheral regions. We demonstrate the importance of multi-plant firms' physical capital structure for the take-up and efficacy of place-based policies by studying a national bonus depreciation scheme in Japan which altered the relative cost of capital across locations, offering high-tech manufacturers immediate cost deductions from their corporate income tax bill. Combining corporate balance sheets with a registry containing investment by plant location and asset type, we find the policy generated big gains in employment and investment in building construction and in machines at pre-existing production sites, with an implied fiscal cost per job created of \$16,000. These responses are driven by more financially constrained firms, firms which rely on costly but long-lived capital inputs, and firms with a larger portion of their existing operations proximal to the policy catchment areas. The policy did not generate positive local spillovers to ineligible plants or spillovers through inter-regional trade networks. For eligible firms, plant-level hiring in ineligible areas outstripped that in eligible areas, suggesting reallocation of resources within firms' internal capital and labor markets mitigates the spatial misallocation inherent in subsidizing low productivity areas.

### Firm Location and the Value-Growth Premium

**Ambrose, Brent W; Chen, Yifan; Simin, Tim**

Penn State University, United States of America; [bwa10@psu.edu](mailto:bwa10@psu.edu)

We investigate the value-growth premium puzzle by merging insights from urban economics and finance that relate firm location to its stock performance. The value-growth premium in locations with high historical house price appreciation is 3.6% per year larger than the premium in areas that experienced little house price appreciation. The results support investment-based models explaining the value premium; moreover we find the house price channel reduces returns of growth firm rather than increasing returns of value firms. House price appreciation remains significant after controlling for common explanations of the premium.

### Property Market Liquidity and the Choice between Secured and Unsecured Debt

**Downs, David H.<sup>1</sup>; Zheng, Chen<sup>2</sup>; Zhu, Bing<sup>3</sup>**

<sup>1</sup>Virginia Commonwealth University, United States of America; <sup>2</sup>University of Reading, UK; <sup>3</sup>Technical University of Munich, Germany; [dhdowns@vcu.edu](mailto:dhdowns@vcu.edu)

We find evidence that asset market liquidity impacts a firm's choice between secured and unsecured debt. Using Real Estate Investment Trusts (REITs) as a laboratory, we measure firm-specific exposure to real asset market liquidity. We find a positive relation between the underlying asset market liquidity of a REIT on its unsecured-to-total-debt ratio. We identify a structural break in the relationship between asset market liquidity and unsecured debt associated with the global financial crisis. Furthermore, we find that when a REIT's underlying real asset markets are more liquid, the REIT is more likely to issue unsecured corporate bonds to raise capital and to use less mortgage financing for its property investments. Our results remain robust to (a) measuring firm-level property market liquidity with different weighting matrices, (b) controlling for asset quality and redeployability as proxies for asset-specific liquidity, (c) stock market liquidity, and (d) excluding residential REITs.



## ARV-12: AREUEA: Commercial Real Estate

*Time:* Sunday, 07/Aug/2022: 7:30am - 9:30am · *Virtual location:* AREUEA-Virtual 4  
*Session Chair:* Brent Smith, Virginia Commonwealth University, United States of America  
*Session Discussant:* Brent Smith, Virginia Commonwealth University, United States of America  
*Session Discussant:* Prashant Das, IIM Ahmedabad, India  
*Session Discussant:* Mehdi Rasteh, Concordia University, Canada  
*Session Discussant:* Jianfeng Wu, Fudan University, China, People's Republic of

### **Do Investor Cliques Generate Superior Fund Performance? An Examination of Private Equity Real Estate Funds**

**Yu, Bobby<sup>2</sup>; Liu, Peng<sup>2</sup>; Das, Prashant<sup>1</sup>**

<sup>1</sup>IIM Ahmedabad, India; <sup>2</sup>S.C. Johnson College of Business, Cornell University; [prashantd@iima.ac.in](mailto:prashantd@iima.ac.in)

In inefficient markets, more informed investors should significantly beat the market, and the phenomenon will lead to emergence of investor cliques that keep private information within themselves. We analyze over 2,000 private equity (PE) funds between 1990 and 2020 focused on real estate (RE) assets as both PE and RE markets are notorious for market inefficiencies. We observe a clearly superior performance among PERE funds dominated by investor cliques. Our observation is robust to numerous measures of clique and fund performance. The superior fund performance is due to cliques' influence on fund operations rather than their repeated selection of high performing fund managers. We show some evidence that although the cliques are more patient with fund operations, and they are successful in reducing the agency problem.

### **Unpledged Collateral and Distressed Asset Sales: Evidence from REIT Transactions**

**Demirci, Irem<sup>1</sup>; Rasteh, Mehdi<sup>2</sup>; Yonder, Erkan<sup>2</sup>**

<sup>1</sup>Nova School of Business & Economics, Portugal; <sup>2</sup>Concordia University, Canada; [mehdi.rasteh@mail.concordia.ca](mailto:mehdi.rasteh@mail.concordia.ca)

Using Real Estate Investment Trusts (REITs) industry as a laboratory, we test the impact of pledgeable assets on distressed firms' asset sales and borrowing activity. We find that unencumbered assets alleviate the distress discount on asset sales of financially distressed REITs. Furthermore, by restricting the firm in the assets that can be disposed, higher encumbrance ratio reduces the firm's selling activity. Finally, financially distressed REITs with high encumbrance ratios raise debt at a higher cost. Our unencumbered assets measure is free of selection bias that secured debt measure is subject to and contains differential information. Overall, our results show that the amount of unencumbered assets has a significant explanatory power on REITs' asset sales and cost of borrowing.

### **Heterogeneity in Effects of Place-Based Policy on Neighborhood Change: Evidence from Special Economic Zones in Urbanizing Shanghai**

**Bu, Nanyang<sup>2</sup>; Guo, Xiangyu<sup>1</sup>; Wu, Jianfeng<sup>1</sup>**

<sup>1</sup>Fudan University, China, People's Republic of; <sup>2</sup>Shanghai University, China, People's Republic of; [wujianfeng@fudan.edu.cn](mailto:wujianfeng@fudan.edu.cn)

The purpose of this study is to examine the impact of Special Economic Zones (SEZs), a type of place-based policy, on local neighborhoods. A difference-in-difference analysis with spatial spillovers using detailed geocoded data in urbanizing Shanghai reveals that SEZs have a heterogeneous impact on neighborhood change: high-skill zones attract highly educated residents, while low-skill zones do not. Among the major causes of heterogeneity are the vastly different types of job opportunities and school amenities offered by SEZs.

### **Commercial Real Estate Brokers: The Artifact of Locational Advantage through Prominence and Reputation and its Impact on Market Pricing and Liquidity**

**Smith, Brent<sup>1</sup>; DLima, Walter<sup>2</sup>**

<sup>1</sup>Virginia Commonwealth University, United States of America; <sup>2</sup>Florida International University; [bcsmith@vcu.edu](mailto:bcsmith@vcu.edu)

We study the effect of intermediary prominence in an area and related locational advantage on economic outcomes through the lens of brokered transactions in the commercial real estate market. Specifically, we explore how the locational advantage generated by a reputation for high quality service, and prominence in the market, of brokers influences pricing and liquidity by analyzing a dataset of over 300,000 commercial real estate transactions occurring across the US. We find that transactions involving a sale broker that is prominent in an area and has a locational advantage, as measured by the count or dollar amount of prior transactions in the area, are associated with higher prices and a lower time on market. Our findings are robust to a range of alternative explanations.

## ASV-7: AsRES: Homeownership and Finance

Time: Sunday, 07/Aug/2022: 10:00am - 12:00pm · Virtual location: AsRES-Virtual 1

Session Chair: Bing Zhu, Technische Universität München, Germany

Session Discussant: Weida Kuang, Business School, Renmin University of China, China, People's Republic of

Session Discussant: Gaetano Lisi, eCampus University, Italy

Session Discussant: Shotaro Watanabe, Henley Business School, University of Reading, United Kingdom

Session Discussant: Noorame Mohd Foudzy, University Malaya, Malaysia

### Homeownership, human capital and (un)employment: theoretical model and empirical evidence in Italy

**Lisi, Gaetano**

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The role of homeownership in the labour market and, in general, in the economy, is complex and important. Indeed, homeownership discourages job mobility, but homeowners are less likely to be unemployed than tenants. Also, homeownership would seem to be related to social capital of a region. Therefore, in order to study the interplay between homeownership, job mobility and (un)employment, an extended version of the search-and-matching model of the labour market is developed and then a regional panel data analysis in Italy is carried out. The theoretical model considers the main (and different) effects of homeownership on the labour market, viz.: the positive effect on human capital (and social capital) and the negative effect on job mobility. As a result, the net effect of homeownership on (un)employment is, a priori, ambiguous. However, when the housing tenure choice is also introduced into the model, a positive relationship between homeownership and labour market outcomes can be found. Empirical evidence in Italy seems to confirm this theoretical finding.

### Google Search and Risk of Strategic Default in the US Great Recession

**Marcato, Gianluca<sup>1</sup>; Watanabe, Shotaro<sup>1</sup>; Zhu, Bing<sup>2</sup>**

<sup>1</sup>Henley Business School, University of Reading, United Kingdom; <sup>2</sup>Department of Civil, Geo and Environmental Engineering, Technical University of Munich (TUM); [shotaro.watanabe@pgr.reading.ac.uk](mailto:shotaro.watanabe@pgr.reading.ac.uk)

Using Google Trends, we estimated the probability of strategic default in the US residential mortgage market. The results showed that the volume of Google searches and the probability of strategic default were positively correlated and statistically significant. The results not only support the validity of the method Mortgage Default Risk Index (MDRI) by Chauvet, Gabriel and Lutz (2016), but also capture the behaviour of strategic default, that is not directly covered by MDRI. Since strategic defaults destabilise the banking system more than involuntary defaults, it is important to capture such opportunistic behaviour in real-time. Internet search queries can provide us with insights into the market.

### Challenges and Factors Influencing Ability to Secure Home Financing among Potential First-Time House Buyers in Malaysia

**Mohd Foudzy, Noorame; Said, Rosli; Mohd Adnan, Yasmin**

University Malaya, Malaysia; [ameyfoudzy@um.edu.my](mailto:ameyfoudzy@um.edu.my)

This paper examines the factors that influence the ability to secure home financing among potential first-time house buyers in the Klang Valley, Malaysia. It is known that home financing facilities have pivotal role in providing financial support for one to pursue the homeownership dream. However, securing home financing can be a challenge to households who are restricted by financing constraints such as small disposable income to serve monthly instalment of home financing, high gearing ratio and poor credit profile. Ordinal Logistic Regression and Descriptive Statistics were deployed to analyse the significant factors that influence the purchasers' ability to secure home financing. The results show that the income and credit quality constraints are significant factors in influencing the ability to secure home financing among potential first-time house buyers. Thus, the results suggest that potential first-time house buyers should possess good credit track record and maintain a stable financial resource prior to the application of home financing facility. Besides, these resources will reveal the financial capacity to take on long-term financing obligation such as home financing until full settlement or the end of financing tenure.

### Does Education Attainment Matter For Mortgage Risks?

**Kuang, Weida; Yu, Jiawei**

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Based on financial literacy and stigma cost, this research explores the mechanisms of borrowers' educational background on mortgage origination and risks. Using the database of home provident funds in a metropolitan city in China from January 2005 through December 2015, we find that the high-educated borrowers acquire more mortgage with higher OLV ratio and have lower default and prepayment risks than those of the low-educated counterparts. It manifests that there exist statistical gaps of mortgage risks in educational background. Moreover, we find that the high-educated borrowers have lower default risks under low repayment affordability and high stigma costs while take higher prepayment risks at the presence of positive home equity and interest rate growth.

## ASV-8: AsRES: Housing Market

*Time:* Sunday, 07/Aug/2022: 10:00am - 12:00pm · *Virtual location:* AsRES-Virtual 2  
*Session Chair:* Alexander David Rothenberg, Syracuse University, United States of America  
*Session Discussant:* Alexander David Rothenberg, Syracuse University, United States of America  
*Session Discussant:* Maruska Vizek, Institute Of Economics Zagreb, Croatia  
*Session Discussant:* Jun Qiu, Renmin University of China, China, People's Republic of  
*Session Discussant:* Dongxiao Niu, Tsinghua University, China, People's Republic of

### SPATIAL SPILLOVERS OF TOURISM ACTIVITY ON HOUSING PRICES: THE CASE OF CROATIA

**Vizek, Maruska<sup>1</sup>; Stojcic, Nebojsa<sup>2</sup>; Mikulic, Josip<sup>3</sup>**

<sup>1</sup>Institute Of Economics Zagreb, Croatia; <sup>2</sup>University Of Dubrovnik, Croatia; <sup>3</sup>Faculty of Economics and Business, University of Zagreb, Croatia; [vizek.maruska@gmail.com](mailto:vizek.maruska@gmail.com)

The tourism effects on housing prices within cities and regions have been analyzed in the literature but there is lack of evidence on the spatial effects of these processes. In areas hit by overtourism, house price hikes have the potential of spillovers to adjacent cities and towns as well as across wider space. Our study widens existing knowledge on the tourism-housing relationship by exploring the existence and extent of spatial spillovers from tourism-intensive cities and towns on housing prices of neighboring areas. A Durbin spatial autoregression panel model is applied on a population of cities and towns from Croatia, one of the small tourism-driven European economies during 2012-2019 period. Different spatial weight matrices are applied to the model to explore the spatial reach of effects. Our findings, robust to the use of different tourism activity proxies, provide support to the existence of spatial spillover effects. The strongest effects of tourism on housing prices within and between cities come through conversion of housing stock in rental properties rather than through increase of private accommodation share in total accommodation capacities. Particularly strong effects are found once full spatial correlation is taken into account.

### Will urban housing and rural land affect family reunion? Evidence from rural-urban migrant families in China

**Qiu, Jun; Lv, Ping**

Renmin University of China, China, People's Republic of; [rachel.qiu@163.com](mailto:rachel.qiu@163.com)

Family migration has become the main mode of rural-urban migration in China. Based on the perspective of New Economics of Labor Migration theory, this paper constructs a phased and dynamic decision-making mechanism, which divides family migration into family separation phase and family reunion phase, and uses data from the 2017 CMDS for analysis. The following conclusions were drawn: in terms of housing, urban housing cost has a significant negative impact on rural-urban family migration of renting households and a significant positive impact on rural-urban family migration of purchasing households, and housing cost has a greater effect at the family separation phase. The effect of housing ownership on family migration is significantly positive and mainly in the family reunion phase. The effect of relative housing deprivation on family migration is significantly negative. With respect to land, rural land ownership has a significant negative effect on rural-urban family migration, and the effect is greater at the family reunion phase. The effect of contracted land area on family migration is significantly positive, while the effect of homestead area is significantly "positive U-shaped". The effects of land transfer behavior and land transfer income are significantly positive, with land transfer behavior mainly affecting low-income households.

### The impact of human capital and housing supply on urban growth

**Büchler, Simon<sup>1</sup>; Niu, Dongxiao<sup>2</sup>; Thompson, Anne Kinsella<sup>1</sup>; Zheng, Siqi<sup>1</sup>**

<sup>1</sup>MIT Center for Real Estate; <sup>2</sup>Tsinghua University, China, People's Republic of; [buechler@mit.edu](mailto:buechler@mit.edu)

We empirically analyze the impact of human capital and housing supply on urban growth in the US and China. Integrating the heterogeneity of housing supply helps determine how a positive human capital shock translates into more population, higher house prices, or higher wages. To causally estimate this effect, we use a rich urban-level data set, chose our controls using the post-double-selection (PDS) methodology, and instrument human capital with the per capita number of historical educational institutions. We find that human capital positively impacts urban, house price, and wage growth. While an elastic housing supply reinforces the impact on urban growth, it reduces house price growth and wage growth. These results infer that human capital increases productivity in both countries and acts as an amenity in the US. Moreover, using machine learning models (ML), we predict future urban growth for American and Chinese urban areas. Our ML models predict that coastal urban areas in the South Atlantic and West South Central Divisions in the US, and southeastern coastal cities in China, will grow the most.

### Urban Sprawl and Social Capital: Evidence from Indonesian Cities

**Civelli, Andrea<sup>1</sup>; Gaduh, Arya<sup>2</sup>; Rothenberg, Alexander D.<sup>3</sup>; Wang, Yao<sup>4</sup>**

<sup>1</sup>University of Arkansas, Fayetteville, United States of America; <sup>2</sup>University of Arkansas, Fayetteville, United States of America; <sup>3</sup>Syracuse University, United States of America; <sup>4</sup>Syracuse University, United States of America; [adrothen@maxwell.syr.edu](mailto:adrothen@maxwell.syr.edu)

We use detailed data from Indonesian cities to study the relationship between urban sprawl and social capital. For identification, we combine soil characteristics instruments for density with controls for community averages of observed characteristics, which control for sorting on observables and unobservables under certain plausible assumptions. We find that lower density increases trust in neighbors and community participation in urban areas of Indonesia. We also find that lower density reduces interethnic tolerance, but this finding is not robust to sorting controls. Heterogeneity analysis suggests that differences in crime rates may play a role in explaining these findings.

## ASV-9: AsRES: Urban Amenities

*Time:* Sunday, 07/Aug/2022: 10:00am - 12:00pm · *Virtual location:* AsRES-Virtual 3

*Session Chair:* Piyush Tiwari, University of Melbourne, Australia

*Session Discussant:* Yanting Wu, Concordia University, Canada

*Session Discussant:* Cheng Keat Tang, Nanyang Technological University, Singapore

*Session Discussant:* Yaopei Wang, National university of Singapore, China, People's Republic of

*Session Discussant:* Radoslaw Trojanek, Poznań University of Economics and Business, Poland

### **The cost of gun crime: evidence from Gun Offender Registry on housing values**

**Tang, Cheng Keat<sup>1</sup>; Le, Thao<sup>2</sup>**

<sup>1</sup>Nanyang Technological University, Singapore; <sup>2</sup>Georgia State University, United States; [tangchengkeat@gmail.com](mailto:tangchengkeat@gmail.com)

This paper estimates the cost of gun crime relying on the introduction of a gun offender registry in Baltimore City, Maryland, that discloses the residences of ex-gun offenders to the public. We exploit the change in perceived crime risk after ex-gun offenders move into the neighborhood and examine its impact on housing values in the vicinity. Our most conservative estimates indicate that houses within 0.1 miles from ex-gun offenders' residences experience an 8.0% decline in value (\$12,632) after the offenders move in. Additional results suggest that homeowners are responding out of fear of victimization rather than actual increases in crime. A simple back-of-the envelope analysis relying on the willingness to pay to avoid these ex-gun offenders suggests that the cost of gun crime victimization is around \$640,000 (2017 values).

### **Road traffic noise and housing rent premium in the post Covid-19 pandemic era**

**Wang, Yaopei; Tu, Yong**

National university of Singapore; [wangyaopei123@163.com](mailto:wangyaopei123@163.com)

Literature shows that quiet housing units fetch price premiums. We apply a Difference-in-Difference model to 87,069 rental housing transactions in Singapore between July 2006 and March 2022 and find that tenants are willing to pay an additional 8.3% rent premium for a housing unit with less exposure to road traffic noise in the post pandemic era. The figure becomes bigger when the pandemic was prolonged. It is larger in noisier urban environments or in bigger housing units. Our findings are explained by the policies of lockdown, social distancing as well as the adoption of remote working during the pandemic. Although these are the temporary measures during the pandemic, they may have long-lasting impacts on enhancing people's preference for quietness as well as generating more road traffic noise, which challenge the future urban noise regulations and urban design in the long run. Urban life is likely to be different after the pandemic. Both policy makers, real estate practitioners and urban residents should prepare themselves for the "new normal".

### **The impact of noise pollution on the residential property market**

**Tanas, Justyna<sup>2</sup>; Trojanek, Radoslaw<sup>1</sup>**

<sup>1</sup>Poznań University of Economics and Business, Poland; <sup>2</sup>WSB in Poznan; [justyna.tanas@wsb.poznan.pl](mailto:justyna.tanas@wsb.poznan.pl), [radoslaw.trojanek@ue.poznan.pl](mailto:radoslaw.trojanek@ue.poznan.pl)

Noise causes the deterioration of the quality of life in urban areas. This article aims to identify and measure the influence of noise (aircraft, road and tram) on the residential property market in Poznań (dwellings located in multifamily buildings, single-family houses and undeveloped land). The study was conducted based on data on transactions of real estate premises made on the secondary market in 2010-2018 in Poznań. The study indicates that noise had the greatest impact on the prices of undeveloped land, while aircraft noise - was the one with the most significant impact.

### **Complaints Against Agents and Agent's Incentives: Evidence from Housing Transactions**

**Kryzanowski, Lawrence; Wu, Yanting**

Concordia University, Canada; [fredawyt.wu@gmail.com](mailto:fredawyt.wu@gmail.com)

This paper investigates the impact of complaints against agents on agents' incentives in housing transactions. Our model shows that complaints incentivize an agent to exert greater effort and to mitigate conflict of interest due to the agent's concern for reputation and future career. Our model also shows that the information asymmetry level, complaint sanctions, and the commission rate play an important role in determining the impact of complaints on a house's sale price. We find that complaints against agents have negative impact on other transaction outcomes such as the probability of a house sale and the listing time on markets. Results from regressions for the full sample and for propensity score matched samples support our model predictions. Our empirical results also find evidence of gender and race differences in responding to complaints in the housing market.

## ASV-10: AsRES: Housing Market During COVID-19 Pandemic

Time: Sunday, 07/Aug/2022: 10:00am - 12:00pm · Virtual location: AsRES-Virtual 4

Session Chair: Ming-Chi Chen, National Chengchi University, Taiwan

Session Discussant: Belgin Akcay, ANKara University, Turkey

Session Discussant: Fang-Ni Chu, National Chengchi University, Taiwan

Session Discussant: Dongyuan Mu, The University of Tokyo, China, People's Republic of

Session Discussant: Jing-Yi Chen, National Taichung University of Science and Technology, Taiwan

### The Covid-19 Pandemic Shocks and the Housing Market

Chen, Ming-Chi; Chu, Fang-Ni

National Chengchi University, Taiwan; [fnchu@nccu.edu.tw](mailto:fnchu@nccu.edu.tw)

The epidemic usually has a negative impact on asset prices. Therefore, when the Covid-19 began, market experts predicted that housing prices would fall. However, in this Covid-19 period, Taiwan's housing market is unusually hot. The related reasons behind this could be properly controlled, government's bailout policy, the panic of home buyers, and rising construction prices, etc. Therefore, this study attempts to explain the changes in Taiwan's housing market during the epidemic. We have the following analysis. First, we will look for Covid-19-related extended epidemic panic variables such as confirmed diagnoses, the number of deaths, etc. in order to know how these epidemic variables affect the housing market. We continue to examine the impact of the COVID-19 outbreak on the housing market after the outbreak by looking at the housing prices, transaction volume, selling time, and concession. We will observe the impacts of the Covid-19 under different time periods, like before the epidemic, the incubation period of the epidemic, and the outbreak period. Finally, we will also analyze the government's policy on epidemic prevention, and observe the degree of its intervention and the degree of crowd control.

### The impact of the COVID-19 Pandemic on Housing Price Gradient: Evidence from Beijing

Mu, Dongyuan

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Beijing, as one of the most developed megacities in China, has been suffering from excessive centralization. To make Beijing less centralized, Beijing government address various policies, such as "the master plan of Beijing (2016-2035)" which came out in 2017. However, Beijing is still excessively centralized compared with other mega cities in the world. In this circumstance, it is empirically confirmed by current research that the COVID-19 rises the price of the properties located in distant places from the central area of cities with a sizable extent. This could be regarded as a sign of decentralization. Following these two issues, in this paper, we estimate the decentralization effects of both policy-oriented development and the COVID-19 pandemic through a newly-built housing transaction data from 2016 to 2020 in Beijing. We find that both the policies and pandemic make the price-distance curve flatter than before, and more importantly, the change due to the COVID-19 has a size as twice large as the policies do. We check the robustness under different specifications and methodologies. Then we provide possible reasons for why this result happens, as well as whether the effects of the pandemic be transitory or permanent.

### Fearless in the Face of the Pandemic? Effects of Joint Information Framing and Personality Traits on Reactions regarding Housing Purchase Decisions

Chen, Jing-Yi; Zhou, Xin-Yu; Zhang, Jia-Yun; Hong, Yi-Xuan; Kim, Young-Jin

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The information received when attempting to buy a house is abundant and complex, and people's interpretation of and feedback to such information are often irrational. Abundant literature indicates that people's behavior varies depending on their personality and psychological factors. Because of the problems of information asymmetry and nontransparency in the real estate market, housing purchase decisions are extremely susceptible to the external environment and provided information. The anchoring effect and framing effect are induced by cognitive biases and cause problems regarding behavioral bias.

Information about housing purchases contains estimations and price information regarding the real estate market. Therefore, the effect of information framing on housing purchase decisions is a crucial issue. This study explored the effect of information framing on the real estate market in the context of COVID-19. The effects of information framing on housing purchase decisions were understood through behavioral finance, and whether the information framing effect on housing purchase decision is altered by a personality trait (optimism-pessimism) was investigated. The growth, rather than decline, in the transaction volume in Taiwan's housing market during the global pandemic period was evaluated and explained.

### Revisiting the Relationship of Credit with House Price in the Covid -19 Pandemic Period

Akcay, Sariye Belgin<sup>1</sup>; Akyüz, Mert<sup>2</sup>

<sup>1</sup>Ankara University, Turkey; <sup>2</sup>Ankara Yıldırım Bayazıt University; [akcay@law.ankara.edu.tr](mailto:akcay@law.ankara.edu.tr)

With spreading the Covid-19 pandemic, governments have taken measures for a short time in many countries to mitigate and/or remove the cost of the negative effects on both the society and the economy of the pandemic, such as loose monetary policy and fiscal policy. In contrast to many countries, when the pandemic started to spread in Turkey, the state deposit banks have cut the interest rates of mortgage loans much more than that of other loans. This reduction in mortgage interest rates has also been in record level historically. However, the literature review shows that there is no study that investigates how the causal relationship between mortgage loan and housing price is affected in Turkey by such a drop in mortgage rates in the pandemic period. Thus, our aim is to revisit the relationship between mortgage loan and house price by considering both pre- Covid-19 pandemic period and the pandemic period. For achieving the purpose, Granger causality test and Toda-Yamamoto causality test are used. Both test results show that in Turkey, there is a mutual causal relationship between mortgage loans and house prices in pre- Covid-19 pandemic period, but no causal relationship between two dynamics in the Covid-19 pandemic period.



## ASV-11: AsRES: Housing and Macroeconomy

Time: Sunday, 07/Aug/2022: 1:00pm - 3:00pm · Virtual location: AsRES-Virtual 1

Session Chair: Pin-te Lin, University of Reading, United Kingdom

Session Discussant: Seung Dong You, Sangmyung University, Korea, Republic of (South Korea)

Session Discussant: Hyun-Soo Choi, Korea Advanced Institute of Science and Technology, Korea, Republic of (South Korea)

Session Discussant: Zhengyi Zhou, Shanghai University of Finance and Economics, China, People's Republic of

Session Discussant: Pin-te Lin, University of Reading, United Kingdom

### Do macroeconomic factors matter in housing markets?

Lin, Pin-te

University of Reading, United Kingdom; [pin-te.lin@henley.reading.ac.uk](mailto:pin-te.lin@henley.reading.ac.uk)

This research examines whether most variation in house price changes is mainly driven by local or national factors. Employing a novel data containing both capital appreciation and income component in the U.S. Metropolitan Statistical Areas, results show that macroeconomic factors, absorbed by time fixed effects, account for 43% of the variation in capital gains and 2% of the variation in rental yields. Overall, the findings empirically support the prior literature assuming that the nature of housing markets is mainly local. The findings suggest a greater role of local factors for understanding cross-sectional income returns in housing markets.

### Does house price co-movement facilitates labor migration? Evidence from China

Zhou, Zhengyi

Shanghai University of Finance and Economics, China, People's Republic of; [zhou.zhengyi@mail.sufe.edu.cn](mailto:zhou.zhengyi@mail.sufe.edu.cn)

This paper studies the effect of house price co-movement on labor migration. Our instrumental variable for pairwise house price co-movement is based on banking integration, which is largely pre-determined in China for institutional reasons and uncorrelated to economic fundamentals. With micro-level data, we show that migrants are more likely to choose destinations where house prices highly co-move with those in their original residence city. This applies to homeowners but not renters, indicating a hedging incentive. Such effect is more evident for elder, less educated, and female migrants, and when potential destinations exhibit high housing consumption risk. At city-level, population growth and people's travelling behavior before the Spring Festival also suggest that house price co-movement facilitates labor migration, especially from low-income to high-income cities.

### Politicians' Asset Allocation and Economic Bill Proposals

Choi, Hyun-Soo<sup>1</sup>; Kim, Hugh Hoikwang<sup>2</sup>; Kim, Paul Youngwook<sup>1</sup>

<sup>1</sup>Korea Advanced Institute of Science and Technology, Korea, Republic of (South Korea); <sup>2</sup>Darla Moore School of Business, University of South Carolina; [hschoi19@kaist.ac.kr](mailto:hschoi19@kaist.ac.kr)

We study the impact of politicians' asset allocation on their economic bill proposals.

Using a novel database of comprehensive financial disclosures of Congress members in South Korea, we find that the Congress members with more real estate assets in their portfolios are less likely to propose economic bills tightening the real estate market. To address endogeneity concerns, we use instrumental variables uniquely available in our empirical setting: earthquake and military tensions between South and North Korea. Controlling for other confounding factors, we argue that the result is mainly driven by politicians' personal interests. Our findings suggest that politicians' financial positions have a material impact on their choice of economic bill proposals.

### Ex-owner-renters' Journey Back to Homeownership

You, Seung Dong<sup>1</sup>; Kim, Kyung-Hwan<sup>2</sup>

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The hierarchy of housing implies that some renter households become homeowners, and that homeowners move to better housing units or other locations as needs develop during their life-cycle. Unlike those households moving up the 'housing ladder', however, some homeowners fall off the ladder and become renters for various reasons. Some of them may return to owner-occupation later in their lives. Studies of the behavior of repeat owners are not well represented in the literature. We address this issue using the Korean Labor and Income Panel Study (KLIPS) data. We created a data set consisting of ex-owners who became renters over the period 1999 to 2019. We then estimated a Cox proportional hazard model in order to investigate the determinants of those households' transition back to owner-occupation. Noting the fact that there are asset-based leases, known as chonse, in addition to monthly rental leases and the hybrids of the two lease types, we find that the pattern of their journey back to owner-occupation varies with the type of rental housing the ex-home occupiers moved to.



## ASV-12: AsRES: Agglomerations, Interactions and Transmission Effects on Regional Economy

*Time:* Sunday, 07/Aug/2022: 1:00pm - 3:00pm · *Virtual location:* AsRES-Virtual 2  
*Session Chair:* Siu Kei Wong, University of Hong Kong, Hong Kong S.A.R. (China)  
*Session Discussant:* Suiling Long, Renmin University of China, China, People's Republic of  
*Session Discussant:* Jing Yang, California State University at Fullerton, United States of America  
*Session Discussant:* Xin Lin, Renmin University of China, China, People's Republic of  
*Session Discussant:* Wen-Chi Liao, National University of Singapore, Singapore

### Housing Transactions near Flips

Yang, Jing

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This study explores the possible impacts of short-term house trades, often characterized as “house flips”, on the house transactions in the neighborhood. Using nationally representative data across multiple U.S. housing markets, we test the spillover effect hypothesis and the alternative competing effect hypothesis for the influences of flips on the property holding time, time on market and resale performance of neighborhood non-flip house transactions. Our results show that local flip tendency is negatively associated with the neighborhood non-flipped houses' holding time, and positively associated with those houses' resale performances, after we control for market conditions that could affect both flip and non-flip transactions. The effects are generally more prominent when the local flip activism is measured by the historical flip tendency than with the recent flip tendency, and when the historical flip tendency is measured for a larger neighborhood area, supporting the spillover effect hypothesis. These findings help extend the literature on the influences of neighbors in the real estate markets and enrich the literature on house flips.

### Will regional integration increase housing cost burden of urban residents: Evidence from China's Yangtze River Delta urban agglomerations

Lin, Xin<sup>1</sup>; Lv, Ping<sup>1</sup>; Wong, Siu Kei<sup>2</sup>

<sup>1</sup>Renmin University of China, China, People's Republic of China; <sup>2</sup>The University of Hong Kong, Hong Kong S.A.R. (China); [sunnylinxin@163.com](mailto:sunnylinxin@163.com)

Based on the Core and Periphery Theory and the Polarization and Trickle-down Effect of New Geographical Economics, this study treats the Yangtze River Delta regional integration plan as a quasi-natural experiment, examining the heterogeneous impact of regional integration on residents' housing cost burdens using a PSM-DID model and panel data of Chinese prefecture-level cities from 2006 to 2019. The study discovers that the impact of regional integration on the housing cost burden varies significantly between core and non-core cities due to the heterogeneous factor flow direction. During the early stages of regional integration development, the housing cost burden increased in core cities while decreasing in non-core cities. As regional integration progressed, the burden on non-core cities increased proportionately. Additionally, regional integration has a distance decay effect on the housing burden within non-core cities, even though significant estimates are obtained only when the dependent variable is income. Specifically, when the radius of the living circle exceeds 1.5 hours, the difference between the effect of regional integration on cities within and outside the living circle becomes insignificant, possibly implying that the radius of the effect of regional integration primarily encompasses cities within the 1.5-hour radius.

### Spatial Econometrics for Strategic Interactions in Sequential Auctions of Government Lands

Luo, Yilan<sup>2</sup>; Liao, Wen-Chi<sup>1</sup>

<sup>1</sup>Department of Real Estate, NUS Business School, National University of Singapore, Singapore; <sup>2</sup>School of Economics and Trade, Hunan University, Changsha, Hunan, China; [wliao@nus.edu.sg](mailto:wliao@nus.edu.sg)

This research considers the historical outcomes of government land sales as the results of repeated simultaneous games played by developers who have participated in the sequential land auctions. In this framework, developers' past experiences in rivalries influenced their bidding behaviors against the rivals. The paper exploits spatial econometric methods to account for such strategic interactions, and the innovation is on the design of the spatial weight matrix. We deviate from the conventional approach of specifying this matrix by assumption. Instead, we apply available data on the lands, bids, and wins in government records to estimate a spatial weight matrix that captures the developers' mixed strategies. The spatial econometric analysis gives the family of spatial autoregressive models a horse race to find the most suitable specification. The regression captures the rivalry network in games. The results show that developers are more likely to place higher bids when potential rivals follow a more aggressive strategy or possess certain characteristics such as the developer's country of origin. Moreover, the spatial econometric method can also identify the direct and indirect effects of both auction strategy and developer characteristics on the outcomes.

### Research on the transmission mechanism of housing wealth effect on Chinese residents' Consumption -- an analysis of intermediary effect based on chfs data

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In China, real estate has become an important part of residents' wealth. Secondly, China's economic growth has slowed down, and there is room for significant improvement in household consumption. This paper empirically tests the internal mechanism of housing wealth affecting residents' consumption by using the data of China's household finance survey in 2017 and the intermediary effect analysis method. It is found that the rise of housing value promotes residents' consumption by increasing disposable income and liabilities, while the savings rate shows a masking effect. The rise of housing value increases residents' savings rate, and the savings rate has a certain crowding out effect on Residents' consumption. In addition, the promotion effect of urban family housing wealth on household consumption expenditure is higher than that of rural families. The promotion effect of family housing wealth on household consumption in the eastern region is greater than that in the central and western regions. At the same time, urban families and rural families are affected by different intermediary paths. For example, the increase of consumption caused by the increase of disposable income of rural families is greater than that of urban families.

## ASV-13: AsRES: Recent Trends in Real Estate Investment

Time: Sunday, 07/Aug/2022: 1:00pm - 3:00pm · Virtual location: AsRES-Virtual 3

Session Chair: Edward Chung-yim Yiu, The University of Auckland Business School, New Zealand

Session Discussant: Edward Chung-yim Yiu, The University of Auckland Business School, New Zealand

Session Discussant: Yang Shi, The University of Melbourne, Australia

Session Discussant: Yang Yang, Chinese University of Hong Kong, Hong Kong S.A.R. (China)

### The Effects of Gasoline Prices on Individual Travel Behavior

**Xu, Zhengzheng; Yang, Yang**

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Transportation costs significantly affect the structure of economic activities and urban quality of life. This study investigates the impact of gasoline prices on the travel behaviors of private cars. Specifically, we use a proprietary, high-frequency dataset containing real-time parking records of over 100 carparks from Jan 2017 to Dec 2020 in Hangzhou, a metropolis of 7 million people that ranked fifth among China's most congested cities in 2016. With a difference-in-differences strategy, we compare the travel behavior of gasoline vehicles and electronic vehicles in response to the exogenous changes in gasoline prices. We also adopt an instrumental variable estimation approach by using the world crude oil price interacted with the proximity to the city center as an instrumental variable, which is likely to be more exogenous to urban localities than the city-level gasoline prices. We show that changes in gasoline prices can materially affect individual travel activities. Furthermore, the results exhibit an asymmetric response to the changes in gasoline prices: an increase in gasoline prices significantly reduces the travel activities of gasoline vehicles; in contrast, a decrease in gasoline price does not affect an individual's travel behavior. Moreover, the heterogeneity analyses are presented based on peak-time periods and car brands.

### An Institutional Analysis of ESG Ratings' Impact on REITs' Returns during COVID-19

**Yiu, Edward Chung-yim<sup>1</sup>; Cheung, Ka Shing<sup>1</sup>; Newell, Graeme<sup>2</sup>**

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Environmental, social, and governance (ESG) investing creates considerable demand for a variety of ESG data and ratings. Today, more than 600 products from over 150 organisations offer the related products globally and create \$35 trillion in ESG assets in 2020. This study aims to analyse from an institutional economics perspective on ESG ratings of REITs. The ESG rating is interpreted as a market mechanism that incentivises corporations to "internalise" the external governance costs of ethical investing. However, the internalisation process is limited by its transaction costs. Using the performance of hospitality Real Estate Investment Trusts (REITs) before and after the COVID-19 outbreak, the widespread hotel closure in 2020 and the use of high-quality hotels to manage isolation and quarantine in 2021 will serve as a-priori information to study the institutional limitation of ESG ratings. Our empirical results evidence a positive effect of ESG on hotel REITs returns prior to the pandemic while a negative impact of ESG after (during) the pandemic. This implies the limitation of the internalisation role of ESG ratings when firms perceive the costs to exceed the benefit in certain conditions.

### PropTech Interface Induced Bias and Housing Investments

**Hu, Maggie Rong<sup>1</sup>; Kuang, Weida<sup>2</sup>; Li, Xiaoyang<sup>3</sup>; Shi, Yang<sup>4</sup>**

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Using transaction level data from the largest real estate agency in China, we provide evidence that property search interface with age-based filters results in jumps in deal likelihood and transaction prices. On the agency's website, potential buyers can filter the listed properties using the following thresholds with respect to property age: five years or newer (5-), ten years or newer (10-), fifteen years or newer (15-), 20 years or newer (20-), and 20 years or older (20+). Based on a regression discontinuity design (RDD), we show properties on the RHS of these age cutoffs have lower deal likelihoods, longer time-one-market, and lower sales prices than comparable properties below the cutoffs. These findings are consistent when using Heckman selection models to address the selection bias and alternative bandwidths as robustness checks. We provide further evidence that properties exceeding the age cutoffs are visited by fewer buyers, and their owners post lower asking prices and accept more discounts in price negotiation, which are the conduits through which year cutoffs affect transaction outcomes. The paper not only adds to the discussion of the influence of user interface design on transaction outcomes but also presents novel evidence on the interaction between machines and humans.

### Valuation of Ecosystem and Environmental Services: A Review of Traditional Valuation Approaches

**Choong, Weng Wai**

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The excessive demand to dynamic mixed use of ecosystem services of natural capital such as wetland, forest, mangrove and river has intensified the natural resources. The public is enjoying the ecosystem services brought by natural capital, however, these services are not quoted with a price and provided in monetary value. Monetise the value of natural capital will provide insights to the policy maker and immensely generate a guiding reference for stakeholders, such as compensation for land reclamation. However, the complexity of ecosystem valuation and diversification of its valuation methods has raised attention among both valuers and environmentalists. In this paper, we discuss the fundamental of economic value and market value in the context of ecosystem and environmental services, then we discuss the categorization of valuation approach from the perspective of the Valuer Profession and its relevancy or similarity with the ecosystem valuation, in the end of the paper, we examine the valuation approach that has the most similar concept with contingent valuation, a non-market valuation to measure the economic value by including the contribution of ecosystem services of functions with other environmental inputs to human well-being.

## ASV-14: AsRES: Natural Environment and Real Estate Market

Time: Sunday, 07/Aug/2022: 3:30pm - 5:30pm · Virtual location: AsRES-Virtual 1

Session Chair: Takuya Ishino, Kanazawa Seiryō University, Japan

Session Discussant: Jyoti Shukla, University of Melbourne, Australia

Session Discussant: Piyush Tiwari, University of Melbourne, Australia

Session Discussant: Qin Fan, California State University, Fresno, United States of America

Session Discussant: Ervi Liusman, The Chinese University of Hong Kong, Hong Kong S.A.R. (China)

### Wet Market – Convenience or Health Hazard?

Liusman, Ervi<sup>1</sup>; Chau, K.W.<sup>2</sup>; Wong, Y.L.<sup>2</sup>

<sup>1</sup>School of Hotel and Tourism Management, The Chinese University of Hong Kong, Hong Kong S.A.R. (China); <sup>2</sup>Department of Real Estate and Construction, The University of Hong Kong, Hong Kong S.A.R. (China); [ervi@cuhk.edu.hk](mailto:ervi@cuhk.edu.hk)

Wet markets provide convenience to fresh food shoppers but also create an unpleasant environment and cause potential health and hygiene problems to nearby residents. This study examines the impact of proximity to wet markets on nearby housing prices and how such impact varies across markets and over time in Hong Kong.

Despite the wet market's importance in the daily lives of most Asians, very little is known about their externalities. This is the first empirical study on the external effects of a wet market on nearby housing prices. The empirical results show that larger wet markets (in total floor area) impose a stronger net positive externality on nearby housing prices. However, the number of storeys is insignificant. The net positive externality of private wet market is found to be stronger than that of the public ones. Compared with newer wet markets, older wet markets have stronger net positive externality. There is evidence that wet market with air conditioning system has weaker positive externality. The results contribute to our understanding of the impact of design and management of wet market on its externalities and how such externalities change over time.

### Groundwater Use and Housing Development

Fan, Qin<sup>1</sup>; Liang, Jason<sup>2</sup>

<sup>1</sup>Department of Economics, Craig School of Business, California State University, Fresno, United States of America; <sup>2</sup>Department of Agricultural Business, Jordan College of Agricultural Sciences and Technology, California State University, Fresno, United States of America; [qfan@csufresno.edu](mailto:qfan@csufresno.edu)

After many years of drought, California is challenged to manage its water resources to mitigate the economic impacts of water stress on different markets including housing market. An important question arises as to whether water availability affects housing development and how. Groundwater overdraft causes land subsidence and water availability directly affects land availability thus affecting housing supply. Housing development and local housing supply elasticities are impacted by geographic feature (land availability) and land use regulations. However, little is known about water availability and relevant policies on housing supply. An econometric model is used to regress the change in residential housing units between the current and previous years on water consumption per capita in the previous year using state fixed effects. Results suggest that groundwater withdrawals for public supply per capita negatively affect residential development based on the full sample in the U.S. While using the subsample that includes California counties, we find that the magnitude of negative impact of groundwater withdrawals becomes even larger. The results provide empirical evidence for negative impacts of groundwater withdrawals on housing supply possibly due to land subsidence and land availability in association with the negative impact of groundwater overdraft.

### Predicted sea level rise and property values: Evidence from Victoria, Australia

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Numerous international studies suggest that Sea Level Rise have had a very small and statistically insignificant impact on house prices. Other studies suggest that even though house prices and SLR-exposed areas have increased, the home sales volumes have declined, indicating that the prospective buyers have become more pessimistic about climate change risk than prospective sellers. A methodologically sophisticated study that combines coastal home sales and the data on elevation relative to local tides finds limited price effect of SLR. Another study that uses the repeat sale method which allows for time-invariant, unobserved property characteristics to be controlled for finds that residential properties that were exposed to future sea level rise experienced lower price appreciation than unexposed properties. We examine the impact of SLR on house prices in Victoria, Australia between 2015-21. We complement house price data with elevation and planning regulations at the property level to determine (i) the relationship between house price and SLR risk, (ii) difference in house price trends between exposed and unexposed properties and (iii) change in the perception towards SLR risk over time as observed through price change over time in Victoria, Australia.

### Measuring Housing Well-being of Disaster Affected persons in Chennai (India)

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The impact of disasters on human well-being extends beyond loss of assets. Asset based compensation approach, usually in monetary form, that the governments adopt for reconstruction of losses of affected persons is marred with challenges in identification of compensable disasters; identification of eligible claimants; identification of compensable losses; and valuation of losses. The largest asset that a household possesses is their house, which suffers major damage. Loss to a house goes beyond the asset itself and affects many dimensions of human well-being. This paper identifies housing well-being determinants as a functioning achievement when seen through the lens of 'capability approach', using the case of households relocated in resettlement colonies in Chennai (India) after disasters since 2004. This paper reveals that the opportunities for higher income at resettlement colonies is important for restoring housing well-being. Neighbourhood security, social capital, safety level in the neighbourhood, access to informal/social system for childcare, social and economic associations are significant contributors to housing well-being.

## ASV-15: AsRES: Urban Development

Time: Sunday, 07/Aug/2022: 3:30pm - 5:30pm · Virtual location: AsRES-Virtual 2

Session Chair: Junhwan Song, Yamaguchi University, Japan

Session Discussant: Misaki Ueno, Wakayama university, Japan

Session Discussant: Siu Kei Wong, University of Hong Kong, Hong Kong S.A.R. (China)

Session Discussant: Changha Jin, Hanyang University, Korea, Republic of (South Korea)

Session Discussant: Ying Hui Chiang, National Chengchi University, Taiwan

### Ownership transfer and urban development: evidence from China's manufacturing M&As

**Shi, Shuai<sup>1</sup>; Wong, Siu Kei<sup>1</sup>; Zheng, Chen<sup>2</sup>; Qiang, Wei<sup>3</sup>**

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Urban development has been explicitly explained by the assemblage of physical assets, human capital, and technologies etc. However, the intangible restructuring of these well-known factors is overlooked by the literature. This article fills this gap by evaluating the spatial implications of industrial restructuring on urban development, which interlinks corporate and urban landscapes. M&As are employed as a vital instrument for ownership transfer and incur industrial restructuring via generating capital mobility over space. We investigate the geographies of China's manufacturing M&As and addresses the question of whether M&As can bolster China's economic growth. We select 10,316 manufacturing M&A transactions over the period from 2004 to 2018 to construct an inter-city capital flow network. We classify M&As into horizontal, vertical, and conglomerate types and examine their respective contribution to urban development. The results demonstrate that M&A-induced network capital can influence economic growth, which is markedly attuned to industrial relatedness and flow directions. Vertical M&As facilitate urban development regardless of flow directions; horizontal M&As' positive impacts are spatially constrained within local markets, while conglomerate M&As consistently play a detrimental role, shedding light on the asymmetric nature of M&A-induced network capital. Policy implications are provided to navigate and regulate M&As under China's socioeconomic settings.

### Innovation, regional growth, and housing price : Does housing price affect local innovation?

**Jin, Changha; Wang, Ilbum; Kang, Imho**

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#### ABSTRACT

In this study, we examine the effect of regional innovation, a number of patent as proxy of innovation, on regional growth in South Korea. We focus on the relative causal effect of local housing price on regional growth and regional innovation. Utilizing economic data and housing price data from total 140 regions from year 2012 to year 2020, we adopt the 2 Stage Least Squared (2SLS) method to overcome issue of endogeneity of variables for our regional growth model and housing price model while controlling home price appreciation and regional specific characteristics. Our findings reveal that while innovation positively affects on regional growth which consistent with previous literature, the housing price inversely affects regional innovation. The result implies that regional innovation is critical to regional growth but the increasing housing price possibly hinder regional innovation.

### The Dilemma of solving urban housing problems through Urban land readjustment: The case of Tucheng, New Taipei City

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Urban land readjustment is the Local Government's tool of land development to supply well-shaped parcels of land equipped with essential public facilities for immediate urban development. Participating landowners benefited from the rise of land values and the improved built environment and must also pay for development costs. Based on the "beneficiary should pay" principle, individual landowners pay the number of establishment costs in proportion to the benefits they receive. These costs are paid by "cost-equivalent land" the contribution of part of the owners' land to be auctioned after the project completed. The well-equipped public facilities, enhanced environment, reconfigured land parcels, and land readjustment areas often attract investment from developers. The housing prices tend to be high in readjustment areas and the high prices often spill over into neighborhoods. We argue that the spillover effects should vary in different stages of the project. This study examines spillover effects based on the completion of land readjustment project and the new developments in the area. Besides, some land readjustment areas also have a high vacancy in residential buildings. This dilemma phenomenon between high housing prices and high vacancy rate bear in the urban land readjustment being a driving force of land and housing speculation.

### The influence of frequency of communication such as regular meetings between the Promotion Corporation for Urban Renaissance and the local government on quality of community activities

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Currently, the promotion of area management through public-private partnerships has become an issue in Japan. Under this situation, it is important to clarify the status and role of area management organizations as intermediaries between the public and private sectors. Therefore, this study aimed to examine the operation of the Promotion Corporation System for Urban Renaissance from the perspective of social capital. Generally, social capital is known as an important factor in promoting regional activities, such as those related to area management. Hence, it is hypothesized that a relationship of specific trust between the local government and its Promotion Corporations for Urban Renaissance will promote community development through efficient public-private partnerships. In addition, the frequency of communication between the public and private sectors may be an important factor for the accumulation and renewal of trust. Therefore, this paper investigates the relationship between frequency of regular meetings and daily contact between the Promotion Corporation for Urban Renaissance and the local government, as well as the current role of these Corporations and their involvement in the formulation of the vision of community activities in the area covered by these Corporations in Japan. As a statistical tool, we employed ordered logit techniques.

## ASV-16: AsRES: Political Economy and Housing Market

Time: Sunday, 07/Aug/2022: 3:30pm - 5:30pm · Virtual location: AsRES-Virtual 3

Session Chair: Fang-Ni Chu, National Chengchi University, Taiwan

Session Discussant: Ming-Chi Chen, National Chengchi University, Taiwan

Session Discussant: Enyuan Li, Tsinghua University, China, People's Republic of

Session Discussant: Vsevolod Nikolaiev, Kyiv National University of Construction and Architecture, Ukraine

Session Discussant: Song Shi, University of Technology Sydney, Australia

### A Study on the Winner's Curse in Beijing Land Market

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The land market is an important part of the real estate market, it's the key to the stable and healthy development of the real estate market, and has an important impact on macroeconomic, financial and financial stability. However, the phenomenon of blind expansion and irrational land purchase by participants in China's land market is prominent, which is not conducive to the realization of the policy goals of stabilizing land prices, housing prices, and expectations. This paper analyzes whether the winner's curse exists in Beijing land market by using the micro-data of the participants, and identifies the influencing factors by constructing a decision model of stock market returns. The results show that the winner's curse exists in the Beijing land market. In addition to the winners, the market believes that the participants in land auctions are generally irrational, but joint bidding and repeated participation can help participants to bid rationally.

### Changing property relations while investing in renovation of destroyed housing in Ukraine

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This paper analyzes housing policy in Ukraine from the point of view of negative trends and future housing provision after the war with Russia. The methodology in the article is based on historical and logical analysis of recent facts which seem to be sufficient for understanding the things which were not taken into account in most studies. In the 1990s most of the flats in Ukraine have been privatized "giveaway" by their sitting tenants while the new owner's rights and obligations as to the plot and building remain unidentified for decades. As result, about 80% of all houses in the cities require urgent modernization with the raised costs. At the same time, the rising tariff for housing and utility services does not include renovation component which could double the actual household's housing expenses. That is why in recent years, one half of all families have applied for subsidies. A difficult question how to limit enormous state assistance to insolvent property owners and how to transfer their property to efficient owners inescapably arise. So, the main Ukrainian housing policy idea must be connected with property redistribution, and especially by external investing in renovation of destructed housing stock.

### Has Chinese capital pushed up Australian house prices?

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The role of foreign buyers in the property market is a popular topic in the housing economics literature. Australia as a migrant country faces the real policy challenge on this topic. Chinese buyers are being blamed for pushing up local housing prices in Australia, and such a claim adds more fuel to the anti-Chinese sentiment. However, that claim often comes with the challenge of distinguishing local from foreign Chinese buyers in the market. Rather than distinguishing buyers, we examine this issue through the lens of capital flight by Chinese who rely on their savings in China to purchase real estate overseas. Using propensity score matching and difference-in-differences techniques, we find that the limitation on currency transactions (Order No.3) issued by the People's Bank of China (PBOC) in 2017 had a significant price impact on housing prices in Chinese suburbs, Sydney, Australia. We therefore present empirical evidence that Chinese capital is closely linked to the Australian housing market.

### The Municipal Election and the Housing Market

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There are still rooms for further understanding the relationship between election and housing market. This paper tries to analyze impacts of local elections on the housing market. This project tests two theories for elections. The first one will examine the political business cycle theory, which assert the ruling party will manipulate the short-term economic situation to benefit market voters and create the illusion of pre-election prosperity. The second is about uncertain information hypothesis, which is to analyze the impact of the uncertainty of the election result on the housing market. According to the numbers released by voters in pre-election polls, analyze whether investors' different responses to expected information affect the housing market decision. We will DID to examine Taiwan municipal elections by using the transaction data of Taipei, Taichung and Kohsiung for past three elections. This paper hopes to has both academic contributions to real estate as well as practical implications for market investment decisions and government policies.