

### **US-China Young Professional Forum**

### World Agricultural Landscape under Current Challenges

August 26, 2019

Krannert Building, Purdue University, West Lafayette, IN

### Organizer

Department of Agricultural Economics, Purdue university

#### **Organizing committee**

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#### Venue

KRAN Draw (first floor lobby), KRAN Auditorium (first floor near elevators), KRAN 202, 230 (second floor)

8:30-09:00 *Onsite Registration* KRAN Draw

Name tags, coffee, refreshments

09:00-09:15 Opening Welcome KRAN Auditorium

Dr. H. Holly Wang, Purdue University

**09:15-10:15** *Plenary Session I* KRAN Auditorium

Keynote Lecture: Dr. Kenneth Foster, Purdue University

The Global Impact of US-China Trade Dispute in Agriculture

**10:15-10:30** *Break* KRAN Draw

10:30-11:50 Parallel Sessions II

A1: International Trade KRAN 202

Impact Evaluating the Trade War Impacts on the U.S. Soybean Exports to China

Bowen Chen\*, Huayan Geng, UIUC

Research on Trade Protection Effect and Influence of American FDA Import Rejection

Maogi Ruan, ZJU

President Trump's Trade War Tweets and Soybean Futures Markets Implications

Megan Hughes, Kylie O'Connor, Purdue

Discussant: Dr. Michael Delgado, Purdue

A2: Environment and natural resource KRAN Auditorium

Tenure stability and environmental performance

Chun Song\*, Juan Sesmero, Michael Delgado, Purdue

Doomed by design: Structural Implications of the Renewable Fuel Standard for E85 Demand

Jia Zhong, Madhu Khanna, Deepayan Debnath, UIUC

Testing for substitutability: Glyphosate and other herbicides in U.S. Maize

Ziwei Ye, MSU

Discussant: Dr. Meilin Ma, Purdue

12:00-13:30 *Lunch break* 

KRAN Draw

Provided to registered participants

13:30-14:50 Parallel Sessions III

B1: Labor and human capital

**KRAN 202** 

The Effect of Workfare Programs on Education

Claire Nguyen\*, Camille Poujaud, Purdue

Effects of Improvement in Road Infrastructures on Rural Laborer's Employment: Evidence from China

Lifeng Zhu, Ming Fang, Songqing Jin, Jikun Huang, MSU

The Impact of Natural disasters on Industrial Upgrading: the Case of Extremely hard-hit Areas of Wenchuan Earthquake

Shibo Feng, ZJU

Discussant: Dr. Zhen Yan, ZJU

**B2:** Consumer and market behavior

**KRAN** Auditorium

On the Effect of Experimental Quantity on Consumer Food Choice Behavior

Wen Lin\*, David Ortega Vincenzina Caputo, MSU

Tracing the Changing Valuation of Beef Bull Attributes

**Mingfeng Tang**, Nathan M. Thompson, Christopher Boyer, Nicole J. Widmar, Jason L. Lusk, Terry S. Stewart, Donna L. Lofgren, Nick Minton, Purdue

Evaluation of Food Safety Crisis on Pork International Trade: Evidence from the 2011 Ractopamine Incident in China

Zhihao Wu, ZJU

Discussant: Dr. Holly Wang, Purdue

14:50-15:10 Break

15:10-16:30 Parallel Sessions IV

### C1: Agricultural production

**KRAN 230** 

Study on the influence of straw returning subsidy on agricultural production efficiency **Xinyuan Lei**, NAU

Factor Misallocation and Agriculture Productivity: Evidence from India

Klaus Deininger, Songqing Jin, Sudhir Singh, MSU

Labor Productivity in the Pilipino Rice Production Sector

Natalie Loduca, Laura Leavens, Purdue

Dr. Songqing Jin, MSU

C2: Farm efficiency management

**KRAN 202** 

Farm planning model for the Altillanura, the last agricultural frontier of Colombia

Carlos Fontanilla, Purdue

Airbnb and Private Investment in Chicago Neighborhoods

Minhong Xu\*, Yilan Xu, AU UIUC

Research on the influence of cooperatives on the credit availability of farmers in China

Yuanyuan Peng, Yueshu Zhou, H. Holly Wang, NAU

Discussant: Dr. Jintao Zhan, NAU

16:30 Adjourn

17:15 *Dinner* KRAN Draw

<sup>\*</sup> Denotes Session Moderator. Please make sure presenters have uploaded their PPT and stay on time. Bold typed names are presenters.

### List of participants

No	Name	Affiliation	Session
1	Bowen Chen	University of Illinois	A1
2	Michael Delgado	Purdue University	A1,A2
3	Ming Fang	Michigan State University	B1
4	Shibo Feng	Zhejiang University	B1
5	Carlos Fontanilla	Purdue University	C2
56	Kenneth Foster	Purdue University	P
67	Megan Hughes	Purdue University	A1
78	Songqing Jin	Michigan State University	B1,C1
9	Laura Leavens	Purdue University	C1
10	Xinyuan Lei	Nanjing Agricultural University	C1
11	Wen Lin	Michigan State University	B2
12	Natalie Loduca	Purdue University	C1
13	Meilin Ma	Purdue University	A2
14	Claire Nguyen	Purdue University	B1
15	Kylie O'Connor	Purdue University	A1
16	Yuanyuan Peng	Nanjing Agricultural University	C2
17	Maoqi Ruan	Zhejiang University	A1
18	Sudhir Singh	Michigan State University	C1
19	Chun Song	Purdue University	A2
20	Mingfeng Tang	Purdue University	B2
21	Holly Wang	Purdue University	P,B2,C2
22	Zhihao Wu	Zhejiang University	B2
23	Minhong Xu	Nanjing Audit University	C2

24	Zhen Yan	Zhejiang University	B1
25	Ziwei Ye	Michigan State University	A2
26	Jintao Zhan	Nanjing Agricultural University	C2
27	Jia Zhong	University of Illinois	A2
28	Yeyang Li	Zhejiang University	
29	Chen Chen	Zhejiang University	
30	Kexuan Chen	Zhejiang University	
31	Weiwei Chen	Zhejiang University	
32	Yaoying Gong	Zhejiang University	
33	Zhen Liu	Zhejiang University	
34	Yuhan Shen	Zhejiang University	
35	Yifan Wang	Zhejiang University	
36	Shuo Wang	Zhejiang University	
37	Luoyi Wu	Zhejiang University	
38	Jiang Yu	Zhejiang University	
39	Ximu Zhang	Zhejiang University	
40	Shiyan Zheng	Zhejiang University	
41	Xiaoliu Zhou	Zhejiang University	
42	Ning An	Nanjing Agricultural University	
43	Jing Chen	Nanjing Agricultural University	
44	Xinyan Cui	Nanjing Agricultural University	
45	Mingrui Gou	Nanjing Agricultural University	
46	Li Li	Nanjing Agricultural University	
47	Yongheng Liu	Nanjing Agricultural University	
48	Weiyi Shi	Nanjing Agricultural University	

49	Meng Wang	Nanjing Agricultural University	
50	Yingfei Xie	Nanjing Agricultural University	
51	Yiting Xu	Nanjing Agricultural University	
52	Zifeng Xu	Nanjing Agricultural University	
53	Xue Yang	Nanjing Agricultural University	
54	Meng Yuan	Nanjing Agricultural University	
55	Mei Zhang	Nanjing Agricultural University	
56	Muqing Zhu	Nanjing Agricultural University	
57	Xiaoyi Fang	Purdue University	

#### **KRAN 202**

# Impact Evaluating the Trade War Impacts on the U.S. Soybean Exports to China Bowen Chen\*, Huayan Geng, University of Illinois

Abstract: The current consumption of ethanol in the US has fallen short of the ambitious goals of the Renewable Fuel Standard (RFS) which sought to induce the consumption of high blend rates of ethanol and the production of ethanol from not only corn but also cellulosic feedstocks. Instead, a "blend wall" has emerged and limited the demand for ethanol to 10% of motor gasoline (E10) consumed, and there has been negligible production of cellulosic biofuels. Blenders have chosen to comply with the RFS by increasing the blending of biomass-based biodiesel beyond levels that were originally targeted instead of creating a demand for higher ethanol blends by pricing them at an energy-equivalent level with E10. This paper develops a conceptual framework and a simulation model to examine the extent to which the design of the RFS, specifically, its nested structure and the cellulosic biofuel waiver credit are creating disincentives for blenders to passthrough the price incentives (referred to as Renewable Identification Numbers (RINs)) needed to induce demand for E85 and for producing cellulosic biofuels. This analysis provides a conceptual rationale for the observed finding in the empirical literature of incomplete pass-through of RINs to higher ethanol blends and informs policymakers about the unintended consequences of the design of the RFS for its effectiveness.

# Research on Trade Protection Effect and Influence of American FDA Import Rejection Maoqi Ruan, Zhejiang University

**Abstract:** Agriculture is the basic industry of the national economy, and it's also an important but fragile industry. Trade protection will cause a greater impact on agriculture, which will have bad effects on countries' economy and society. This article will conduct an empirical analysis based on the data of import refusal of the food and drug administration of the United States and explore the motivation, especially in terms of trade protection, for FDA to take import refusal measures for agricultural products. In addition, this paper will also analyze the differences in the degree of trade protection for products of different categories, origins and quality levels. Finally, this article will find the right products for China's export agriculture, put forward policy suggestions to avoid the risk of non-tariff barriers, and establish a trade protection early warning mechanism.

## President Trump's Trade War Tweets and Soybean Futures Markets Implications Megan Hughes, Kylie O'Connor, Purdue University

**Abstract:** President Trump has the unique ability to announce the occurrence of events that will have significant implications for commodity markets ahead of official release. Current literature discusses how the President's sentiment expressed via the social media platform has affected the stock market, but has not expanded into other economic measures, or addressed specific major economic events. In order to assess President Trump's tweets as an indicator of movement in the soybean futures market, the tweets were indexed as positive, negative, or neutral and assigned a dummy variable. From there, they could be regressed against soybean futures prices. The results showed that while a few select tweets from President Donald Trump gained media interest for their

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impact on agricultural commodities prices, these effects do not hold statistically for his tweets in aggregate.

#### A2: Environment and natural resource

**KRAN** Auditorium

### Tenure stability and environmental performance

Chun Song\*, Juan Sesmero, Michael Delgado, Purdue University

Abstract: The present study examines the causal link between tenure stability (the length of the period of time during which a leaders stays in office) and air pollution abatement. Based on political economy literature, we hypothesize that both very short and very long tenures of local leaders can potentially hinder the design and implementation of air pollution mitigation policies. Identification of this relationship is difficult because a leader's tenure may be affected by performance evaluation that includes measures of air quality (endogeneity), and because of the complex interaction between tenure and other socio-economic variables. We test our hypothesis using control function estimator while allowing non-linear response in air pollution growth to tenure length. Results confirm the hypothesis and show that optimal tenure length, in terms of air pollution mitigation, should be longer than five years, while very long tenure is associated with less effective air pollution abatement.

## Doomed by design: Structural Implications of the Renewable Fuel Standard for E85 Demand

Jia Zhong, Madhu Khanna, Deepayan Debnath, University of Illinois

Abstract: The current consumption of ethanol in the US has fallen short of the ambitious goals of the Renewable Fuel Standard (RFS) which sought to induce the consumption of high blend rates of ethanol and the production of ethanol from not only corn but also cellulosic feedstocks. Instead, a "blend wall" has emerged and limited the demand for ethanol to 10% of motor gasoline (E10) consumed, and there has been negligible production of cellulosic biofuels. Blenders have chosen to comply with the RFS by increasing the blending of biomass-based biodiesel beyond levels that were originally targeted instead of creating a demand for higher ethanol blends by pricing them at an energy-equivalent level with E10. This paper develops a conceptual framework and a simulation model to examine the extent to which the design of the RFS, specifically, its nested structure and the cellulosic biofuel waiver credit are creating disincentives for blenders to passthrough the price incentives (referred to as Renewable Identification Numbers (RINs)) needed to induce demand for E85 and for producing cellulosic biofuels. This analysis provides a conceptual rationale for the observed finding in the empirical literature of incomplete pass-through of RINs to higher ethanol blends and informs policymakers about the unintended consequences of the design of the RFS for its effectiveness.

# Testing for substitutability: Glyphosate and other herbicides in U.S. Maize Ziwei Ye, Michigan State University

Abstract: Glyphosate is the world's most widely used herbicide. Given recent regulatory interventions to either restrict or ban glyphosate application, an accurate characterization of

herbicide choices is highly relevant to policy analysis due to the potential spill-over effects of such policy interventions on the use of other herbicides. Using a large field-level unbalanced panel period, seeks spanning the 1998-2016 this study to test for the potential substitution/complementary relationship between glyphosate and atrazine in the U.S. maize production, as well as to assess how glyphosate resistance has affected this relationship. Specifically, an event study framework is adopted to estimate the effect on a farm's herbicide decisions of the two regional events, namely the entry of Glyphosate-Tolerant maize technology at Crop Reporting District level and the advent of broadleaf weed resistance at state level. Our preliminary results indicate that the substitution/complementarity relationship varies depending on factors including weed species and herbicide application timing, and a definitive conclusion has not been reached so far.

#### **B1:** Labor and human capital

**KRAN 202** 

### The Effect of Workfare Programs on Education

Claire Nguyen\*, Camille Poujaud, Purdue University

Abstract: In order to battle poverty, numerous nations have implemented employment guarantee schemes as a means to reduce the unemployment rate among the poor. Though those schemes are designed to attract the low skilled, able-bodied adults of poor households, there might be an incentive for the parents to send their school-age children to the workforce too. Thus, those schemes might unintentionally hinder education and hence growth in the long run. We tested this hypothesis using fixed effect model. The results showed that when an employment guarantee scheme is present and active in a country, the employment rate of the secondary school and college age group (15 to 24 years old) increases by 2.9%. We also found that in countries with those programs, a 1% increase in the employment rate of the age group 15-24 will decrease the enrollment rate of secondary school students by 2.02%. However, 1% increase in the employment rate of the previous year will increase the enrollment rate of the current year by 3.28%. It hence may be the case that while hindering education in the short run, an employment guarantee schemes may foster it in the intermediate and long term.

### Effects of Improvement in Road Infrastructures on Rural Laborer's Employment: Evidence from China

Lifeng Zhu, Ming Fang, Songqing Jin, Jikun Huang, Michigan State University

Abstract: While many studies have shown significant impacts of road infrastructure on rural development in terms of raising farming productivity, market efficiency, reduction in production cost and/or transaction costs, etc., the effects of road infrastructure improvement on employment choices of rural labor are much less studied. In this paper, we aim to assess the distinct effects of different categories of road construction on off-farm employment of rural laborers. Using long household panel data from 3 rounds of household surveys spanning near a decade and 60 villages, in combination of the extremely detailed road infrastructure data that are assembled from the GIS data sources, we find that the improvement of road infrastructure at village, township and county level tends to increase an average farmer's tendency to engage in farm or local off-farm self-employment and the intensity of working on farming or local off-farm employment. While the

construction of highway, provincial or nation level roads, conversely, tends to increase an average farmer's tendency to work on off-farm outside of his/her own county. Our analysis also shows that the impacts of the improvement of road conditions are heterogeneous across household characteristics such as education. Our research enriches the study in impact assessment of road construction/expansion by identifying the distinct roles played by the different types of road infrastructure in rural farmers' employment.

# The Impact of Natural disasters on Industrial Upgrading: the Case of Extremely hard-hit Areas of Wenchuan Earthquake

Shibo Feng, Zhejiang University

**Abstract:** The Wenchuan earthquake is the most destructive and widespread earthquake since the founding of New China. The direct economic losses caused by it amounted to 568.4 billion yuan. In this paper, we use the number of employees in the three major industries from 2003 to 2013 and the comprehensive disaster index in the severely hard-hit areas of the Wenchuan earthquake to investigate the impact of this temporary impact on the industries. The results show that the Wenchuan earthquake caused an average change in the share and quantity of employees in the three major industries. On the other hand, the earthquake caused shifts in the trend of the share and quantity of employees in the three major industries. The combined effects of these average and trend changes are long-lasting. The earthquake severely damaged the resources such as cultivated land in the disaster area, resulting in a continuous decline in the number and share of the primary industry employees in the extremely hard-hit areas. This provided a large amount of labor resources for the secondary and tertiary industries. At the same time, the earthquake gave opportunities for the rearrangement of industries in the most severely affected areas, prompting the rapid development of the second and third industries after the earthquake. These forces have jointly promoted the industrial upgrading of the extremely hard-hit areas of the Wenchuan earthquake, rationalizing its industrial structure and promoting economic development.

#### **B2:** Consumer and market behavior

**KRAN** Auditorium

### On the Effect of Experimental Quantity on Consumer Food Choice Behavior Wen Lin\*, David Ortega Vincenzina Caputo, Michigan State University

Abstract: This paper investigates whether and how experimental quantities presented in a discrete choice experiment (DCE) affect consumer food choice behavior based on mental budgeting. Specially, I evaluate two beef DCE designs: one being the traditional design with a researcher-predetermined quantity (500 grams); the other allowing the unit to be customized based on respondent's self-reported quantity per purchase. The results indicate that consumers who buy larger amounts than the experimental quantity (and have larger default budgets) are less price sensitive, more likely to select the expensive product and have a lower probability to opt-out from making a purchase. Similarly, individuals with smaller purchase quantities (which have smaller default budgets) are more sensitive to price, and are more likely to make a no-purchase decision. However, these discrepancies in choice behavior are mitigated when the experimental quantities are matched with consumers' usual purchase quantities. Furthermore, the WTPs for most product attributes are significantly smaller in the matched design, suggesting that the effect of experimental

quantity on the WTPs are attribute-specific. Therefore, I caution the use of researcher-predetermined experimental quantities in stated preference methods and encourage designs accounting for heterogeneity in purchase quantities. This study also contributes to the literature by providing and validating a novel design where experimental quantities are matched with respondents' real purchase quantities.

#### **Tracing the Changing Valuation of Beef Bull Attributes**

Mingfeng Tang, Nathan M. Thompson, Christopher Boyer, Nicole J. Widmar, Jason L. Lusk, Terry S. Stewart, Donna L. Lofgren, Nick Minton, Purdue University

**Abstract:** Unlike pork and poultry, the beef industry supply chain is characterized by several disaggregated sectors: seed-stock, cow-calf, stocker/backgrounder, feedlot, and processor. The lack of coordination among these sectors makes it difficult to signal consumer preferences upstream to cattle producers. Despite attempts by the beef industry to better align the quality and consistency of beef products with consumer preferences, there remains a lack of evidence that the industry's breeding sectors (seedstock and cow-calf) are properly incentivized to invest in genetic improvements necessary to meet these demands (Thompson, 2018). One way to evaluate the effectiveness of these attempts is to investigate producer valuations of beef bull attributes. Beef bull auctions are a common mechanism for the purchase/sale of beef bulls, making available unique data on both sale price and detailed production information. For this reason, hedonic analyses of beef bull auction data have been performed by a number of researchers (e.g., Chvosta et al., 2001; Jones et al., 2008; Beckkerman et al., 2013). However, most studies rely on the implicit assumption that the marginal valuations of bull attributes are static over time. The objective of this study is to investigate if producers' marginal valuations of some bull attributes have changed over time. A hedonic pricing model is estimated using 17 years of bull auction data (2002-2018) from bull auctions in the state of Indiana. Robustness checks of hypothesized temporal change in producer valuations of bull attributes are performed, and bull attribute prices are estimated as a function of time to display the time path of the temporal changes. Study results will be useful for the whole industry to think about how to use carcass traits and EPDs or the introduction of new information such as genetic testing.

# **Evaluation of Food Safety Crisis on Pork International Trade: Evidence from the 2011 Ractopamine Incident in China**

Zhihao Wu, Zhejiang University

**Abstract:** China is the largest pork consumption country in the world, and pork is one of its main imported agricultural products. As the uncover of "shou'rou'jing" incident is exogenous, it provides the condition for us to perform a DID evaluation of its influence on pork imported to China from countries which do not ban ractopamine (treated group) and from countries which ban ractopamine (control group). The results show that there's a drop of 72.1% of reduction of imported pork value and 51.4% reduction of imported pork volume from treated countries after "shou'rou'jing" incident with even a pork price reduction of 24.1% from treated countries after the incident. It means that China largely reduced the pork imported from treated countries even the imported price decreased.

#### **KRAN 230**

# Study on the influence of straw returning subsidy on agricultural production efficiency Xinyuan Lei, Nanjing Agricultural University

Abstract: In order to promote the Research on the influence of cooperatives on the credit availability of large-scale peasant households in China adoption of straw returning technology, this paper compared and analyzed the effects of two straw treatment methods including straw returning and straw burning, on agricultural production efficiency. Based on the county-level panel data of Jiangsu Province from 2007 to 2015, the super-SBM model was used to measure the traditional agricultural production efficiency including the input of cultivated land quality, and the impact of straw returning subsidies on agricultural production efficiency was analyzed. The study found that: (1) Whether the quality of cultivated land is considered to have significant differences in the accounting results of agricultural production efficiency. (2) Straw incineration can significantly improve the efficiency of traditional agricultural production. (3) Straw returning subsidies will inhibit straw burning by technical substitution and policy effects. Based on this, it is proposed that the quality of cultivated land should be included in the measurement framework of agricultural production efficiency; the government should vigorously promote the subsidy policy for returning farmland, and increase the subsidy in combination with regional conditions; implement the technology promotion policy with equal emphasis on the operation training and supervision system to ensure the quality of straw returning. To improve technical efficiency; in the long run, optimize the comprehensive utilization structure of straw and broaden the scope of utilization.

## Factor Misallocation and Agriculture Productivity: Evidence from India Klaus Deininger, Songqing Jin, Sudhir Singh Michigan State University

Abstract: While agriculture share of GDP has decreased in recent years, the sector still employs the largest share of labor in India. With growing demand for food and population growth puts pressure on the farmers and policy makers to efficiently utilize the factors of production and increase the productivity. In this paper we document presence of factor misallocation in Indian agriculture and its relationship with the factor markets conditions with focus on land and labor. Using a panel data from major states in India, we find significant evidence of factor misallocation, which is associated with the poor market condition of land and labor. Our results show that efficient allocation of factors of production will increase the productivity gain by 118 percent. This result is robust to even very conservative measure of TFP. The key implications that can be drawn from our study is that the removal of the restriction on land leads to improvement of resource allocation and the total productivity, and therefore food security

### **Labor Productivity in the Pilipino Rice Production Sector**

Natalie Loduca, Laura Leavens, Purdue University

**Abstract:** The data has parcel-level information of the different sources of labor used on the farms, such as whether they were hired, shared or family workers and if they were from the upland or lowland regions. We will test whether the marginal productivity is the same across different categories of labor with the data on the Palawan region in the Philippines. We also have data on

the proportion of lowland and upland labor that is hired on each farm site in the lowland area. The uplanders live on sloped, highly degraded forest land and practice swidden agriculture. Lowland farmers use more modern agricultural technologies, have richer soil, and also have more reliable access to irrigation, local markets, and land titles (Dressler and Turner, 2008). We build two models to examine if labor productivity differences exist between family and hired labor, as well as between upland and lowland hired labor. Our null hypothesis is that the marginal productivity of labor will be equal across the various categories, which we will analyze within the scope of our By modeling two production functions, we were able to analyze the productivity and significance of agricultural inputs for rice cultivation in the Philippines. Our null hypothesis was that all labor categories will be equal in productivity, however, we find that our labor inputs had more nuanced effects. For our first model, we find that hired and family labor are significant, but family labor is associated with a negative impact on the quantity harvested. In our second model, lowland labor is found to be significant while upland labor does not have any explanatory power regarding rice cultivation. As a result, we reject the null hypothesis that all labor categories are equal in productivity and find that the various labor inputs have more nuanced impacts on farmers' harvests

#### **C2:** Farm efficiency management

**KRAN 202** 

### Farm planning model for the Altillanura, the last agricultural frontier of Colombia Carlos Fontanilla, Purdue University

Abstract: Using a profit maximizing linear programming model at the representative farm level, we assess the optimal commodity choice for Altillanura producers by determining the portfolio of productive activities that maximize net farm revenue, subject to limitations on the resources available on the farm (land, labor, and capital). This is a one-year steady-state model of farm-level agricultural complex production possibilities, which help us to compare annual enterprises as well as perennial crops. This model identifies a portfolio of enterprises that make efficient use of farm resources over time. The portfolio includes not only the most profitable enterprise (cacay), but also a rotation of rice and soybeans, and rubber due to complementarity between the timing of labor use for these crops. Other scenarios identify strong potential for livestock enterprises to complement crop production.

### Airbnb and Private Investment in Chicago Neighborhoods

Minhong Xu\*, Yilan Xu, Nanjing Audit University University of Illinois

**Abstract:** The Airbnb-based home-sharing platform reduces the market frictions of short-term rentals, which raises the potential economic returns to a property. The conversion of residential units into de facto commercial hotel use and the associated new revenue flow creates incentives for capital investment. This study examines how the expansion of the Airbnb market has stimulated private investment in Chicago neighborhoods. The instrumental variable estimates indicate that one more Airbnb listing was associated with an additional 0.18 building permits in the subsequent quarter, translating into \$422 thousand in capital investment. Besides direct investment on residential properties, we find positive spillovers of capital flows to other zones where amenities and businesses arise to meet the demands of the shifting population. Moreover, we show

significantly larger effects on investment in markets dominated by commercial hosts and in communities experiencing no or negative change in socioeconomic development relative to the gentrifying communities since the 1980s.

## Research on the influence of cooperatives on the credit availability of farmers in China Yuanyuan Peng, Yueshu Zhou, H. Holly Wang, Nanjing Agricultural University

**Abstract:** At present, China's agriculture has entered a new stage of accelerating the transformation from a decentralized operation of traditional farmers to a new management system combining intensification, specialization, organization and socialization. In order to improve the credit availability of large-scale farmers, this paper conducts on-the-spot investigations on 755 households in Jiangsu Province, and uses the PSM model to analyze the impact of cooperatives on the credit availability of large-scale farmers. At the same time, we conduct a classification study on the different agricultural industrial chains involving cooperatives, including scale farmers, to judge the heterogeneity of the impact of cooperatives on the availability of credit for large-scale farmers in different agricultural industrial chains. The study found that cooperatives have a significant positive impact on the credit availability of large-scale farmers. Under the agricultural industry chain of "farmers + cooperatives", cooperatives can improve the credit availability of large-scale farmers by exerting their market power and common supervision functions. Under the agricultural industry chain of "farmers + cooperatives + leading enterprises", cooperatives pass give full play to its knowledge spillover channels and the function of guaranteeing contract stability to improve the credit availability of large-scale farmers.