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ABOUT BROOKINGS

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ABOUT IESR

Institute for Economic and Social Research (IESR) was founded at Jinan University in December 2015, with Yangtze River Scholar Professor Shuaizhang Feng appointed as the first Dean of the institute. Our mission is to advance policy-oriented economic and social research by addressing most pressing issues in today's China. We hope to translate our research insights into policy action throughout the country, and thus contribute to the overall betterment of our society. Here at our institute we work on wide scope of research topics ranging from rural-to-urban migration, left-behind children, labor market, urban and rural development, international trade, firm development, to more theory-driven research in econometrics and macroeconomics. We engage in a sustained dialogue with policymakers all across China, and strive in bringing together leading scholars from all over the globe to join us in a pioneering research collaboration through our regular seminars, workshops and conferences.

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Summary

In October 2020, the Brookings Institution and Jinan University jointly organized the 2nd Brookings-Jinan China Microeconomic Policy Forum. The 2020 conference included four environment papers on pollution and three labor papers on migration control, peer effects, and old age support, as well as two panels on pollution and migration. This report provides a summary of the presentations of the seven papers and discussions of the two panels.

Environment Session

Paper 1
Location-based Policies and Unintended Environmental Consequences: Evidence from an Industry Relocation Policy in China

This paper was presented by Junji Xiao from University of Technology Sydney, coauthored with Maoyong Fan from Ball State University and Jianxin Wu from Jinan University. This paper examines the environmental consequences of a regional development program in Guangdong, one of the most economically dynamic regions in China. The purpose of the program is to support the economic development of less-developed areas in the province.

Applying difference-in-differences (DID) analysis to annual industry-county level data, we show that, compared with the Pearl River Delta (PRD, high-income regions at the terminus of the Pearl River), the target areas (upstream from the PRD) experienced higher growth in water pollution-intensive industries under the regional development program. Since the non-PRD regions are substantially less developed than the PRD regions, this program resulted in more low-income people exposed to higher levels of water and air pollution.

Firms' location decisions were driven by the more favorable tax regimes and less stringent pollution regulations in the non-PRD regions. The effects of the program on individual firms differed depending on their characteristics. Specifically,

we categorized firms in two directions. In terms of ownership, we categorized firms into state owned enterprises (SOE), private owned enterprises (POE) and foreign owned enterprises (FOE). In terms of their tenure, we categorized firms into new firms (established since 2001) and old firms (established before 2001). Environmental regulations were effective in restraining the entry of polluting firms into the non-PRD regions. The existing pollution-intensive firms in non-PRD regions were not driven out by the environmental regulations.

This paper contributes to the environmental regulation literature in the following ways. First, this paper is the first study on the environmental consequences of a place-based policy. The authors present evidence showing that both production in different pollution-intensive industries and pollution levels increase after the policy's implementation. They examine the impact of the amendments to the environmental regulations of the original program. The empirical results suggest that these amendments may have stopped further deterioration of environmental quality caused by the entry of pollution-intensive firms. Nevertheless, it did not shift the industry structure toward a less polluting one because the existing pollution-intensive firms in non-PRD regions were not driven out by the environmental regulations.

Second, this study adds to the growing literature on the welfare effects of place-based policies in both developed and developing countries. The existing research focuses on the assessment of the economic consequences of place-based policies but generally neglects the environmental externalities caused by firms' location choices. The authors' analysis suggests that without taking environmental externalities into account, the welfare effects of place-based policies will be overestimated.

Third, this paper contributes to the limited empirical evidence on the impact of water pollution regulation in developing countries, especially in China. It extends the current literature by providing direct evidence on the environmental impact of a placed-based policy, while previous literature focuses on the analysis of production activities.

Finally, the policy and political implications of the paper are important for China as well as for other developing countries. Before 2006, Chinese officials' promotion prospects depended on one factor above all others: economic growth. However, since 2006 and particularly after 2015, local

environmental quality has become a vital criterion for government officials' promotion. Consequently, the local government started to pay attention to the environmental impact of the program and introduced strict environmental regulations. The empirical findings suggest that it is crucial to clarify officials' environmental responsibility to achieve sustainable development in China.

Discussion of the paper was provided by Shanjun Li from Cornell University and Clifford Winston from Brookings Institution. Junji mentioned that their paper analyzed the environmental consequences of an economic policy (the Regional Economic Development Incentives in Guangdong) instead of an environmental policy and that the government should account for the negative externality when making such policies. Both Clifford and Shanjun asked Junji how they addressed the identification concerns. Shanjun pointed out the key challenge is to find a valid control group that should not be affected by the policy but are similar to the treatment group in the absence of the policy. Specifically, he suggested that Junji should use counties in other provinces as the control group instead of other counties in Guangdong province that could suffer from the spillover effects from the policy. Junji acknowledged that the current analysis might overestimate the effect of the REDI policy because the policy could affect the other counties in Guangdong province. Shanjun also suggested that Junji could explore more of the policy's heterogeneous impacts because the policy mainly affected new entrants instead of incumbent firms.

Paper 2
Attentions Online, Abatement Offline: A Natural Experiment from Social Media in China

The paper was presented by Pinghan Liang from Suh Yat-sen University, coauthored with his colleagues Wei Zou and Xiaoxing Qi. The rapid economic growth in China during the past decades has been accompanied by acute environmental deterioration. In 2013, 99.6% of China's population was exposed to PM 2.5 (particles with an aerodynamic diameter less than 2.5 microns) air pollution levels, which exceeds the guidelines of the World Health Organization (10 μg/m3 annual mean). Severe air pollution causes substantial adverse impacts on various social and economic outcomes. This problem calls for the joint effort from governments, firms, and citizens.

In early 2015, an independently produced environmental documentary Under the Dome, in a format similar to Al Gore's An Inconvenient Truth, was released online in the China Mainland. It had been viewed more than 200 million times by Chinese people and has immediately attracted a massive response across China within two days after its release. In this paper, the researchers exploit the unexpected release of this film as a natural experiment, to examine the impact of online public attention on firms' pollutants emissions and on local government regulatory actions. They combine several unique datasets covering social media activities, internet search volume, online petitions, local government regulatory actions, and firms' pollution emissions.

They measure public attention to the documentary by the number of original posts on this film on Sina Weibo, China's largest micro-blogging platform. It's shown that a one-standard deviation increase in public attention induces a sizable abatement of sulfur dioxide (SO_2) and nitrogen oxides (NO) by local firms, by 10.06 and 9.78 percent, respectively. According to the Ministry of Environmental Protection of China, the emission of SO_2 and NO in China was reduced by 12.9% and 8.6% during 2011-2014. Hence, the amount of abatement is sizable. The spillover effect on water pollutants is also observed.

Following the storyline of this film, the authors explore the mechanism. First, the public attention significantly increases individual environmental awareness, measured by the internet search volume of environment-related keywords. Second, it's observed that firms improve environmental behavior as a response to the rising public attention, and only the abatement of consumer goods producers is significantly correlated with the public attention. Finally, as urged by the film, residents engage more in environmental public actions after the release of film, measured by the number of Weibo posts tagging the local environmental protection bureau (EPB), as well as by the number of environmental petitions posted on a central government-sponsored petition platform. In the city with more public attention to the documentary, the firms being complained about were more likely to receive penalties. The effect of public attention on firms' abatement is more salient when the local leaders have stronger career incentives or

local power networks.

These findings suggest:(1) public attention and the subsequent citizen actions in China could complement regulatory actions to reduce air pollution. (2) in addition to surveillance, social media activities in China could exert pressure on local governments and could help discipline their behavior.

Discussion of this paper was provided by Guojun He from HKUST. Guojun summarized that Pinghan assembled many different data sets (including public environmental awareness, firms' financial reports, environmental complaints, etc.) to examine the effects of Chai Jing's Documentary "Under the Dome". He suggested that Pinghan emphasize more about his contribution to data collection, examine whether the effects on firms are sustained, and that Pinghan could link their estimates to environmental health studies and provide some discussion on the welfare implications and economic significance. Guojun also raised several concerns regarding identification. Given the short (two-year) study period, he thought it is important to show that the Microblog post (MBP) measure is uncorrelated with population size, internet penetration, education, and baseline pollution levels. Guojun also commented that the attention of the late-comers that searched for the documentary after it was removed online cannot be captured by MBP, which renders a non-classic measurement error issue. Finally, in the model that examines the environmental awareness story, Guojun suggested including the interactions between the post variable and all the control variables to allow cities with more MBPs and cities with less MBPs to have different trends over time to partially address the concern that MBP is possibly correlated with many controls.

Paper 3
Weather, Climate Change, and Land Use: A High-Resolution Analysis in China

This paper was presented by Peng Zhang from the Chinese University of Hong Kong, Shenzhen, and coauthored with Jianghao Wang from Chinese Academy of Sciences and Junjie Zhang from Duke Kunshan University. Climate change is a major threat to food security. The determination of policy actions requires accurate estimates of climatic impacts on both crop yields and cropland area. However, the analysis of the latter has been limited, especially in developing countries.

This paper assesses the impact of temperature on land use in China by matching high-resolution satellite data on land use with daily weather data from 1980 to 2010. We find extremely hot weather (daily average temperature above 30 °C) has a long-lasting effect on reducing cropland in China. In particular, if climate change increases the temperature on one day from 15–20 °C to above 30 °C permanently, it reduces cropland area by a total of 1.01%, or 17.98 thousand km2 in 10 years. In addition, we find that non-irrigated land is more susceptible to rising temperatures in the short term (less than 5 years); however, irrigated land is subject to a similar impact in the long term (more than 5 years). This result suggests that the adaptive effect of irrigation could be limited under persistent temperature increase. We find insignificant temperature effects for forestland, grassland, waterbody, and barren land. However, the effect of extremely hot weather on developed land (used for urban and rural residence, infrastructure, and industry) is significantly positive. It suggests that some lost cropland has been converted to developed land.

Finally, combining climate projections from 39 downscaled climate models, we predict that climate change is likely to reduce China's cropland area by 2.09%–25.51%, or 37.20 thousand to 454.08 thousand km2, under IPCC's slowest and fastest warming scenarios by the end of this century. This suggests that climate change could threaten China's cropland. China, the world's largest CO2 emitter, could take more aggressive climate actions in its own interest.

Discussion of this paper was provided by Joshua Graff Zivin from University of California, San Diego. Joshua thought the empirical analysis was great and the coefficients were reasonable. Joshua first suggested that Peng should think about GMM estimation for a system of equations where acreage in each land use category sums to the total acreage because this would capture the general equilibrium nature of the problem and would address the cropland to urban conversion directly. Joshua thought that examining the effects of temperature and precipitation in the growing-season is important. Joshua also commented that the paper should clarify the identifying assumptions and the interpretation of different model specifications. He suggested that Peng should exploit the data set to examine

the decision making reference period for farmers, which is a fundamental question about climate change adaptation. Regarding the projections, Joshua suggested that Peng should think about how to map the shift in temperature distribution to a shift in outcomes; Shanjun Li commented that the authors should think about how to incorporate adaptation in long-run projections; and Wangyang Lai mentioned that using estimates from the long-difference model in long term projections had incorporated people's adaptation.

Panel 1
Pollution and its consequences on firms and individuals

Moderator:
Clifford Winston
Senior fellow, Brookings Institution

Clifford Winston: What big environmental policies would people recommend for tackling the major environmental problems that China faces?

Shanjun Li: In a recent review paper, we find that PM2.5 decreases by about 40% and other air pollutants such as SO2 and CO also drastically decrease in China from 2013 to 2018. This implies that China knows the causes of the air pollution problem as well as the policies that help solve it although whether the solution is cost effective or not is another question.

Pinghan Liang: The Chinese central government imposed huge pressure on local governments to curb PM2.5 pollution. Local governors must decrease PM2.5 concentration regardless of the approach. Otherwise, they will be removed from the position. Local governments straightforwardly shut down factories, which raises questions of sustainability. There are many policies in China that look like natural experiments. However, policy implementation in China is highly decentralized and different local governments implement the same policy in different ways.

Clifford Winston: Is there any retrospective assessment that finds environmental regulation policies are implemented better in some places than the others? Decentralization actually helps people develop the best practices, so it is important to know whether China is intentionally doing this.

Pinghan Liang: China sometimes has pilot programs in large cities such as Beijing, Shanghai, and Guangzhou, and then people learn the best practice and apply it in the whole country. As a comparison, sometimes China just set up a goal for everyone, for instance, everyone needs to reduce the PM2.5 to a certain target within the specified period. However, sometimes there may be distortions in policy implementation. Thus, even though people may learn the best practice ex post, it needs time to diffuse it, and sometimes all places cannot have the best practice.

Clifford Winston: I am curious of whether policy makers in China are thinking of electric vehicles (or the combination of electric and autonomous vehicles) as important ways of improving the environmental conditions. I think China is ahead of the US in terms of testing autonomous vehicles. Compared with the US, there is much greater push for electric vehicles. In terms of the bigger pictures about environmental policy, please tell me what roles those vehicles are going to have.

Joshua Graff Zivin: What power sources are going to generate the electricity to power those electric vehicles?

Junji Xiao: The purpose of China promoting the development of the EV industry is in two dimensions. First, the Chinese government thinks the EV industry as a way of developing the indigenous car brands, which can help with technological advancement. China still does not own automobile technologies for some key parts in cars such as the transmission, but developing EV can avoid that problem. Second, developing EV is used as a pollution abatement policy. However, I wonder about the effectiveness of developing EV for this purpose. Most electricity is generated by coal-fired power plants in China, so pollution from EV is even higher than the fuel car. I guess subsidy for EV is not a good pollution abatement strategy. However, if more electricity can be generated by cleaner sources in the future, then replacing fuel cars with EV will be a good abatement policy.

Guojun He: I completely disagree with that. There are two reasons. First, from the perspective of

pollution control, there are millions of automobiles whose pollution emissions are very difficult to control, whereas it is easier to focus on the pollution control in a few power plants. Second, China has been the leading country adopting and developing the ultra-high voltage transmission lines to transmit large bulk of electricity from western and northern China, where there is abundant wind power, hydropower, and solar power. This is going to transform many coal-fired power plants to renewable energy based plants. Overall, with the transition from both sides, promoting EV is the correct direction. Since China's car market is still growing, we do not want to have a huge car stock which is going to cause environmental problems that are difficult to address in the future.

Joshua Graff Zivin: China is remarkably adept at industrial policy and environmental regulation (e.g. Shanjun and Guojun's paper on improvement in air quality). China has a place at the table to be a global exporter of pollution control technologies. As an innovator in pollution control technologies and policies, they can deliver an improved environment for their increasingly vocal citizens in the large eastern cities and be a global player in markets as an exporter of these technologies and policies.

Labor Session

Paper 4
Migration Controls, Urban Fiscal Policies, and the Accumulation of Human Capital in China

The paper was presented by Jipeng Zhang from Southwest University of Finance and Economics, coauthored with Holger Sieg from University of Pennsylvania and Chamna Yoon from Korea Advanced Institute of Science and Technology. This study explores the impact of migration controls on urban fiscal policies and the intergenerational transmission of human capital accumulation in China. It shows that migrants provide large positive fiscal externalities to major cities. The study evaluates the feasibility and effectiveness of alternative migration policies that offer the potential of decreasing inequality within China while at the same time promoting growth via increasing the aggregate level of human capital in the economy.

An important feature of the Hukou system is that it regulates access to a variety of local public goods and services. In particular, the Hukou status restricts access to local schools, health insurance, pension, unemployment insurance, maternity benefits, and housing providence funds. Access to these public goods affects investment decisions in human capital, inequality, and social development. The study measures the magnitude of the effects using novel data from the China Household Finance Survey and the Migrants Dynamic Monitoring Survey.

To quantify the effects of internal migration controls on human capital accumulation and to assess the feasibility and effectiveness of potential reforms, the study develops and estimates a new overlapping generations model with heterogeneous households. The model has multiple cities that differ by local labor and housing market conditions as well as local tax and expenditure policies. Households, therefore, have strong incentives to migrate to higher productivity cities that pay higher wages and have a higher quality of local public good provision. Migrant households face mobility costs, wedges in housing markets, and restricted access to local public goods. These wedges make migration less attractive and, thus, lead to an inefficient allocation of labor among cities. Moreover, migrant households must decide whether or not to leave their children behind with relatives in less developed areas. The model thus captures the main constraints imposed on migrant households by the current Hukou system.

The internal migration controls then imply that migrants create a positive fiscal externality for almost all cities. On the expenditure side, migrants often do not have equal access to local primary and secondary schools and other local public goods and services. Hence, they require lower expenditures than residents. On the revenue side, the housing demand of migrants drives a large share of new housing construction, which is an important source of local revenues in growing cities in China. The estimated model suggests the difference between total revenues paid by migrants and total local expenditures on migrants' accounts for 6 to 15 percent of total city revenues. The endogenous spatial sorting of households and the heterogeneity of educational quality among cities significantly affect human capital accumulation in the economy. The analysis suggests that the current Hukou system creates inequality, suppresses human capital accumulation, and reduces economic growth. Model simulations suggest that granting full residency rights to migrants in tier 3 cities is likely to achieve the target of

100 million migrants that has been proposed by China's State Council in 2016. This policy change significantly increases the college attainment of children born in rural and less developed areas, but it requires equivalently an increase in the consumption tax by approximately 1.3 percentage points.

Discussion of the paper presented was provided by Hong Song from Fudan University. Hong commented that the paper delivered important practical policy implications by showing that the migrants do not enjoy the same access to local public goods and services as residents. The paper also employed an overlapping generations model to analyze the impact of the hukou system and urban fiscal policies. The paper showed that migrants provide large fiscal externalities to major cities. Hong said it is important to clarify the sizable magnitude of migrants' contribution to the urban development of China, and to evaluate the effectiveness of alternative migration policies. Many people talk about the need to reform the Hukou system but seldom consider the implications of alternative policies.

Hong asked if it is feasible to compare alternative policies to reduce the Hukou restrictions, such as increasing the central government transfers or increasing access to local public schools. Regarding the model, Hong asked how the model might incorporate the changing of Hukou, considering that the change is likely to be endogenous. Considering the endogeneity, the fiscal externality is likely to be greater than the estimates, and the costs of removing Hukou restrictions are likely to be higher. Hong also asked about the child growing up to receive local Hukou regardless of the parent getting Hukou, whether the results will change if the household utility depended on the child's skill level directly, and how the housing subsidy is exactly incorporated in the model.

In response, Holger Sieg said that expanding access to local public goods and services would likely come from increased transfers from the central government. To keep the model succinct, return migration is not modeled and college attendance decision is also not modeled. Instead, achievement and skill are differentiated during childhood. They will explain housing subsidy more carefully.

Finally Holger said that the model does not assume steady state, since the model moves forward only one period and stops. The goal was to explain the skill distribution observed today and show what it could have been if Hukou policies were different 20 years ago.

Paper 5
Externality of Parental Absence on Peer's Personality Traits

This paper was presented by Zhe Yang from Jinan University, coauthored with his colleagues Shuaizhang Feng and Jun Hyung Kim. The paper studies the impact of children being left-behind by their parents on the personality traits of children's classmates. Millions of children in rural area are left-behind by migrant parents who work in the cities but cannot take their children with them, due to the Hukou policy preventing rural children from enjoying public goods such as public school and health care in an urban area.

The paper identified non cognitive peer effects in the primary school setting. It showed that exposure to classmates with poor personality traits in primary school negatively affected their personality traits. Exposure to classmates with low academic achievement did not affect the personality traits of their peers.

The study's background is in Mianzhu county of Sichuan province. It's not particularly high in poverty, and roughly half urban. Data is based on a survey whose respondents include primary school students in grades 4 through 6, their teachers, primary guardians, and their migratory parents. Parent's history of migration is collected from grade 1. About half of the children in the sample were left behind at the time of the survey. Students, their teachers, and their primary guardians evaluated students' personality traits using the Big Five scale. Data also contains school test scores from school administrative data. The Survey includes 5,000 students in 17 schools, 2,000 of whom were never left behind.

In the sample, there were large gaps between children left-behind and children not left-behind in the Big Five personality traits (openness to experience, conscientiousness, extraversion, agreeableness, and emotional stability) and social skills. This gap is bigger than the gaps in test scores and cognitive skills score measured by the IQ test. The proportion of peers left-behind in classrooms is the measure of peer characteristics.

Identification is achieved by random assignment to classrooms. Students were randomly assigned to classrooms twice: (1)in grade 1 at the time of admission; and (2) in grade 4, because new teachers teach grades 4 through 6. Randomization is confirmed by balance tests and interviews with school principals.

The main finding is that the proportion of peers left-behind in grade 4 has a strong, negative, and significant impact on the personality traits of peers not left behind. A 1 percentage point increase in the proportion of children left-behind is associated with more than a 1 standard deviation change in personality traits. Peers in grade 1 do not have significant effects. No effect was detected in math scores and IQ scores. All results were robust to a variety of specifications and clustering.

In addition to the main finding, IV analysis is conducted, using the peer's average left-behind status and test scores in the past as instruments for current average peer characteristics. Results show that low-personality peers negatively impact personality traits and that low-test-score peers negatively affect test scores, but there was no evidence of low-achieving peers impacting personality traits or of low-personality peers affecting test scores.

The discussion of the paper was provided by Elira Kuka from George Washington University. Elira notes that her own work shows that long-term peer effects cannot be entirely explained by changes in cognitive skills or educational achievement, and she suggested non-cognitive skill as a potential channel. Current work adds support to that possibility.

Elira asked if there is genuinely no effect from the first grade peers, or is it simply masked by the fourth grade peers. It would be useful to check for the overlap of peers in the two periods. She also suggested measuring peers left-behind by their left-behind status in earlier periods. Doing so would help to remove concerns about location-specific shocks and tell us if left-behind status has a long-term effect or short-term effect. Finally, other kinds of left-behind intensity could also be studied, such as the duration of having been left-behind.

Elira noted that the effects were driven by personality measures evaluated by teachers, and raised a possibility that teachers' perceptions were biased by particular students who stand out.

In addition, Holger Seig asked if the standard error is clustered at the school level, and commented that the results might have been driven by poor randomization at grade 4.

Yang responded that some of the points raised by Elira are already being addressed, and others will be addressed. In response to Holder, he said the standard error is clustered at school level in robustness checks. Finally, based on balance tests and interviews, classroom assignment was random in both grade 1 and 4.

Paper 6
Welfare Magnets and Internal Migration in China

This paper was presented by Zhangfeng Jin from Zhejiang University, coauthored with Junsen Zhang from Chinese University of Hong Kong. The welfare magnet hypothesis, i.e., welfare benefits act as magnets for low-skilled migrants, is a classic debate among economists and policy makers. This paper revisits this hypothesis in the context of internal migration in China.

The research takes advantage of the Chinese hukou system, an internal visa system used to control internal migration that Chinese authorities formally established in 1958. Under the system, unregistered migrants were denied full access to local welfare benefits unless they successfully obtained local hukou in destinations, access to which used to be strictly controlled under an annual quota system. The authors exploit quasi-experimental, city-level variation in the timing and intensity of the adoption of a migration reform (2002-2015) in China. The migration reform substitutes a rigid annual quota system with a system of more flexible entry conditions as the basis for the application of local hukou, substantially reducing uncertainties of obtaining local hukou. The researchers construct a panel data on annual migration inflows from rural China for 283 prefecture-level cities from 1999 to 2008, using Chinese population censuses in 2005 and 2010. Several other data sets are used for complementary analyses.

Using a difference-in-differences setup, they find that improved access to welfare benefits in destinations substantially attracts low- and medium-skilled migrants from rural China, confirming the welfare magnet hypothesis for internal migration in China. They further show that the improved access to welfare benefits improves rather than worsens local labor market outcomes in destinations in the long term (possibly) through more domestic consumption of existing migrants who intend to stay longer in destinations after the adoption of the migration reform.

The discussion of this paper was provided by Klaus Zimmermann from the Global Labor Organization. Zimmermann highlighted the differences between migrants' benefits involved in the weakening of the Chinese hukou system and benefits in the welfare magnet process in Europe. The former includes whether migrants can work,

whereas the latter is about whether migrants don't have to work.

Zimmermann stressed the importance of finding out what the world can learn from the results of substantial changes in China's internal migration policy and pointed out that what the authors discovered is common in migration studies. The effects of welfare policies on migration are more pronounced for young, male, and low- and medium-skilled workers.

Zimmermann commented that in terms of labor mobility, China's hukou system is much more international than is the European Union system . It is crucial in the long run for China to move to a free labor market and away from local restrictions.

Reflecting on the strand of literature testing the welfare magnet hypothesis, Professor Zimmermann showed that the effects are less than people claimed.

Zimmermann asked whether the 283 prefectures in the study cover all of the prefecture-level cities in China and questioned the claim that the paper is the first to collect data on the timing of policy reforms by citing a broad literature. Zimmermann also suggested a discussion of institutional reasoning behind the reforms should be included.

Zimmerman pointed out several identification issues in the paper. First, it is not clear how the method of constructing the key explanatory variable, the weakening of hukou, is supported by the actual decision for each city regarding its reform process. Second, explanations are needed to convince people that cities with various reform times would have had similar changes in migration in the absence of reforms. Given the large-scale internal migration in China, policymakers were likely to make decisions based on the trend of migration. Third, the intensity variable and the gradual adjustment variables are moving together if there is only one set of reforms. Fourth, the author measured migration outcomes as inflows only, not counting the outflows.

Furthermore, Zimmermann pointed out several structural issues in the paper. First, the static approach in this paper overlooks the dynamic structure of migration. Second, the outcome variable, log of migration inflow, has no stationary steady state. Third, migrants might get hukou to become locals so that the dynamic nature would become more complex.

Regarding the interpretation of the findings, Zimmermann pointed out that the nearly zero difference between the coefficients on the intensity of restriction and the gradual reform implies that if all

cities had a reform, one would not see a large effect.

In response to Zimmermann's comments about the difference between the Chinese and European contexts, Zhangfeng Jin clarified that internal migrants in China worked in their destination even before the hukou reform.

Paper 7
The Role of Social Norms in Old-age Support: Evidence from China

This paper was presented by Xuezhu Shi from University of International Business and Economics. Intergenerational old-age support within families is an important norm in developing countries, which typically lack comprehensive pension coverage. The transmission mechanism for this norm is potentially influenced by socioeconomic factors internal and external to the family, which the norm may in-turn influence. This paper studies the inter-generational transmission of this social norm in China, focusing on the role of gender. The mechanism behind this transmission is that parents, by their provision of support to their elderly parents, shape their same-gender children's preference for future old-age support. I name the proposed mechanism as the same-gender transmission channel. Given that the gender ratio of Chinese children is not random, I use an interaction term of the timing of the ban on sex-selective abortions in China and the gender of the first-born child as the DDIV-like instrumental variable for the gender of the children to alleviate the possible endogeneity.

The empirical results, using the China Health and Retirement Longitudinal Study (CHARLS) and the China Household Finance Survey (CHFS), show that parents with more same-gender children provide more support to their ageing parents than parents with more cross-gender ones, controlling for their household size. Through the subsample checks and heterogeneity analyses, the results indicate that the father effect is more significant in rural subsamples, and the mother effect is mainly seen in the urban ones. The urban-rural difference in the results may indicate a normative shift accompanying economic and demographic changes. Apart from the same-gender transmission channel proposed by the paper, other channels might affect the old-age support provision behaviors, such as altruism and direct reciprocity. In the mechanism checks

section, the empirical results show that the same-gender transmission channel coexists with the other channels. The corresponding father and mother effects are still significant while considering other channels when running the results.

The discussion of this paper was provided by Professor Zhong Zhao from Renmin University of China. Professor Zhao's comments centered around two broad issues: the urban–rural difference and the instrument variable. Zhao stressed that rural and urban areas in China are quite different in terms of the health system, family structure, income level, and social norms. To study how the channels of intergenerational old-age support work, it is necessary to separate rural samples from urban samples. This rural–urban divide is particularly relevant to the instrument–variable approach in the paper because the first stage effect is stronger and less likely to violate the exclusion restriction in the rural sample than in an urban sample. The second stage effect, the "demonstration effect," this paper aims to identify is relatively important in urban areas but is of secondary importance for the old-age support in rural areas.

In regard to the implementation of the instrument–variable method, Zhao pointed out several issues. First, the sex-selective abortion ban in China affected women who already had a child before the ban and all the women of childbearing age at the time of the ban. Second, the sex ratio in urban China might be endogenous, and third, the construction of the instrument variable might overlook a difference in the family planning policy between rural and urban China. In many rural places, there was a "1.5-child policy," which was absent in urban areas. Zhao suggested incorporating several confounding factors for old-age support in the analysis, such as parents' and children's migration, co-residence of multiple generations, and whether parents and grandparents are living in the same village. Furthermore, it would be valuable if the author had direct information on how the parents provide support for the grandparents, and then how they demonstrate these actions to the children.

Panel 2
Internal migration and rural-urban inequality in China

Moderator:
Shuaizhang Feng
Professor, Dean of School of Economics and Institute of Economic and Social Research,
Jinan University

Shuaizhang Feng asked two questions about the Hukou policy in China: How has China's Hukou policy shaped internal migration patterns, impacted the destination and rural areas, and impacted the migrants and their family members left behind? What are the directions of future policies?

Holger Sieg highlighted that in China, local governments provide many public goods that typically are provided at the national level, such as social security, health care, and housing subsidies. Because of these huge programs, the hukou system has much greater impact on migration patterns than a hypothetical hukou system in the US would have. The reform of these programs is a deeply under-researched area.

Shuaizhang Feng commented that the local provision of these programs is partially due to the difference in the development levels across regions in China.

Holger Sieg added that the provision of public goods in China is at the city level. It is much more decentralized than that in the EU, which is at the country level.

Klaus F. Zimmermann did not think there would be basic differences between China and EU in the directions of future policies because they are both integrated areas.

Jipeng Zhang discovered three recent trends from the 2017 and 2018 CHFS data. First, a much larger fraction of migrants obtained hukou in their destination, and second, the reform not only relaxed the hukou registration barrier, but also expanded the provision of public services to all people. Third, the return migration is at a scale larger than we expected.

Shuaizhang Feng agreed with Holger Sieg that the hukou system would have much smaller impact have it not been closely tied to many social benefits. Feng commented that in recent years the barrier of hukou registration has been relaxed in cities with populations less than 5 million. This change was asked by the central government.

Holger Seig brought up an idea of reform which transfers the provision of public goods from the current city level to the provincial level.

Shuaizhang Feng responded that the transfer to the provincial level is already happening to some extent as the central government in China has been transferring large amounts of funding across provinces.

Klaus F. Zimmermann argued that for some public services it might be more effective to provide at the local level rather than from Beijing. However, providing at the local level could make migrants harder to be accepted.

Zhong Zhao discussed another two issues for providing public services locally. The first issue is the unbalanced flow across regions in the internal migration. Because migrants contribute to the pension system in the destination city but not the sending city, places with large outflows are experiencing pension fund deficits. The second issue is that as the Chinese tax revenues are becoming increasingly concentrated at the central government level, local government depends on transfers from the central government to finance their public service. However, the central government calculates the amount of transfers based on population with the hukou, not the actual population, which could create problems.

Shuaizhang Feng asked about the future pattern for the internal migration in China, and whether cities would be able to provide migrants with sufficient job opportunities, social benefits and affordable housing.

Zhangfeng Jin commented that the hukou reforms might make migrants consume more in the destination, which can expand the service sector in the urban area, making employment less of an issue.

Shuaizhang Feng asked whether the continue inflow of migrants will adversely affect local people and incumbent migrants. Feng commented that there is partial segregation of labor market between urban native workers and migrants, reducing the competition for job. However, a problem remains in the competition for other public services, for example, access to public higher education.

Jipeng Zhang commented that one obstacle in analyzing the impact of migrants on local wage or employment in China is the difficulty in tracking the change in the hukou status of migrants. Jipeng Zhang stressed that an effective way of reforming the hukou system is to detach hukou status from the provision of public services. Recent development of western

regions is accompanied by a large-scale return migration.

Klaus F. Zimmermann commented that the impacts of migrants on the natives are not as bad as people think, but very positive globally. In the future, China will have a decline in the workforce so that cities will go out and search for people instead of waiting until people come.

Clifford Winston closed the conference by thanking every participant and looking forward to a meeting next year.

Conference Agenda

Day 1, Friday October 16 (Beijing Time, 12-hour difference from Eastern Time)

Opening speech
Shuaizhang Feng, Jinan University
Clifford Winston, Brookings Institution

Environment session
Title: *Location-based Policies and Unintended Environmental Consequences: Evidence from an Industry Relocation Policy in China*
Presenter:
Junji Xiao, University of Technology Sydney
Discussant: Shanjun Li, Cornell University

Title: *Attentions Online, Abatement Offline: A Natural Experiment from Social Media in China*
Presenter:
Pinghan Liang, Sun Yat-sen University
Discussant:
Guojun He, HKUST

Title: *Weather, Climate Change, and Land Use: A High-Resolution Analysis in China*
Presenter:
Peng Zhang, CUHK Shenzhen
Discussant:
Joshua S. Graff Zivin, UCSD

Round table I: *Pollution and its consequences on firms and individuals*
Moderator:
Clifford Winston, Brookings Institution

Day 2, Saturday October 17 (Beijing Time)

Labor session

Title: *Migration Controls, Urban Fiscal Policies, and the Accumulation of Human Capital in China*

Presenter:

Jipeng Zhan, Southwest University of Finance and Economics

Discussant:

Hong Song, Fudan University

Title: *Externality of Parental Absence on Peer's Personality Traits*

Presenter:

Zhe Yang, Jinan University

Discussant:

Elira Kuka, George Washington University

Title: *Welfare Magnets and Internal Migration in China*

Presenter:

Zhangfeng Jin, Zhejiang University

Discussant:

Klaus F. Zimmermann, GLO

Title: *The Role of Social Norms in Old-age Support: Evidence from China*

Presenter:

Xuezhu Shi, University of International Business and Economics

Discussant:

Zhong Zhao, Renmin University of China

Round table II: *Internal migration and rural-urban inequality in China*

Moderator: Shuaizhang Feng, Jinan University

Conference summary

Clifford Winston, Brookings Institution

List of Participants

Shuaizhang Feng

Jinan University

Joshua S. Graff Zivin

University of California San Diego

Guojun He

Hong Kong University of Science and Technology

Zhangfeng Jin

Zhejiang University

Elira Kuka

George Washington University

Shanjun Li

Cornell University

Pinghan Liang

Sun Yat-sen University

Xuezhu Shi

University of International Business and Economics

Holger Sieg

University of Pennsylvania

Hong Song

Fudan University

Clifford Winston

Brookings Institution

Junji Xiao

University of Technology Sydney

Zhe Yang

Jinan University

Peng Zhang

CUHK Shenzhen

Sisi Zhang

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Zhong Zhao

Renmin University of China

Klaus F. Zimmermann

Global Labor Organization