Interview Scripts

[Timeline for 5-min explanation of your JMP]
RQ
What to do
Why important
How I do
Findings

[Timeline for 15-min explanation of your research]
Research fields: 1
JMP: 10
Other papers: 2
Future: 2

Q. Can you explain your JMP? (5min)
- 2 min summary of your JMP: Q, Setting, Top level finding, ordered list of results, conclusion
- 2 min versions of your other papers
- Concrete idea for future research
- Concrete idea of what courses you could teach at a specific school
- Prepare Qs you will ask

Q. Can you explain your JMP? (5min)

NYUAD (30 minuites)

5 minutes: Research agenda; 15 minutes: JMP; Rest: discussion on JMP and Q&A about NYUAD

Thank you very much for having me. I really appreciate this opportunity.

Research agenda

My primary research fields are development, spatial, and environmental economics.

My broad research agenda is to uncover the economic geography and market structure in developing countries, especially focusing on rural areas, and to derive policy implications for improving market efficiency and human welfare as well as mitigating environmental costs.

I have several papers and ongoing projects on this agenda with diverse topics, including the impact of refugee inflows on host economies and farmers in rural Africa, tropical forest conservation in Amazon, which is my job market paper, and caste-based spatial segregation and its efficiency and welfare consequences in Indian villages.

As an applied microeconomist, I use diverse empirical methods and data, including standard causal inference, structural models, historical data sometimes, and field data collection.

Indeed, as a development economist, I will be also very glad to be based in Abu Dhabi, because I will be located much closer to India and Africa where I conduct fieldwork.

Would you have any questions about my research agenda? Or, shall I talk about my job market paper?

Job Market Paper (3 minutes without interruption & 15 minutes with interruption)

In my job market paper, with coauthors, we ask how to balance human and ecological well-being in tropical forests.

This is an important but difficult question for the following reasons.

Policymakers face the inherent trade-off between conserving the rainforest and improving the welfare of local populations.

If we restrict forest clearing for agriculture to reduce deforestation, then agricultural income might decrease.

Moreover, human adaptation through sectoral or spatial reallocation of economic activity may undermine conservation policy goals.

So, in this paper, we build a multi-sector quantitative spatial general equilibrium model that formalizes such human-nature interactions and highlights the rainforest population's trade-off between concentration and dispersion.

Intuition is that natural resource and land endowments are more accessible in sparse areas owing to weak congestion, while dense areas have higher market access and agglomeration benefits.

And we estimate the model using high-resolution georeferenced data from river basins in the Peruvian Amazon where we do not have road access.

In particular, we identify density externality parameters that explain how population density affects productivity in different rural sectors---agriculture and natural resource extraction (such as fishing and hunting)---by exploiting plausibly exogenous variation in the structure of river networks.

We find that the agglomeration externality in agricultural production outweighs dispersion forces in access to land,

implying that higher concentration leads to higher productivity with less deforestation per farmer.
We also find a strong congestion externality with spatial spillovers in natural resource extraction.
(These externalities are quantitatively important. For example, by shutting down the agglomeration externality, welfare decreases by more than 10%, and deforestation increases by more than 30% from the benchmark equilibrium)
Counterfactual simulations demonstrate that well-targeted place-based protection policies and transport infrastructure are complementary to improving both human welfare and ecological conservation,
that is, simultaneously achieving higher welfare, lower deforestation, and less biological natural resource depletion.

This is the shortest summary of my job market paper. And please let me explain each step.

The Peruvian Amazon, our study area, is an ideal setting to study fundamental human-nature interactions for two reasons.
First, most of the populations engages in traditional ways of life in remote areas without modern technology and large-scale external investments. These features enable us to attribute resource extraction to small-scale farmers and hunter-gatherers and thus focus on density externalities that they cause.
Second, river networks almost solely constitute the transportation routes in this region. This feature allows us to identify the density externality parameters.

In particular, to estimate the effect of population size on productivity, we construct a measure of "river network access", which captures the distance-weighted sum of access to other locations via the river network, as an instrument for each location's population.
The logic behind the identification is that the river network access, as a market potential shifter, affects productivity only through its effect on employment and thus through externalities that arise, rather than through productivity fundamentals.
The independence assumption is that, after controlling for a rich set of geographical conditions in the own location, unobservable productivity fundamentals are not correlated with the variation in river network access that can be generated by exogenous river shapes in locations far away from the own location.

The agglomeration externality in agriculture may not be immediately obvious, in part because agglomeration has typically been discussed in urban settings.
We find that the primary mechanism behind the agglomeration is economies of scale in transport technology.
We also find suggestive evidence that economies of scale in agricultural intensification with modern technologies are behind the agglomeration externality.

Protecting the rural frontier works primarily to mitigates natural resource depletion by increasing the congestion force in extractive activities, which depends on surrounding populations, within a more compact area for human settlements.
Transport infrastructure that integrates hinterlands can reduce deforestation by generating moderate-sized but dispersed settlements and spreading the agglomeration benefits more evenly across the basin.

SIGNALs:

1, Department of Agricultural and Applied Economics, University of Wisconsin-Madison
JOE ID=2022-02_111469899
Message to Employer:

The Department of Agricultural and Applied Economics at UW-Madison would be an ideal place to pursue my research.
I believe that my research will substantially contribute to and benefit from the department's strong group working on development economics, environmental economics, and agricultural economics.
My research agendas will continue to lie at the intersection of these fields.
Moreover, I have several close friends who live or have lived in Madison.
All of them have given me very positive impressions of the research and living environment in Madison.
Therefore, I am also very thrilled to move to Madison for my personal reasons as well.
Thank you for your consideration. I look forward to hearing from you.

2. Department of Economics, University of Zurich
JOE_ID=2022-02_111470347
The Department of Economics at the University of Zurich would be an ideal place to pursue my research.
I believe that my research will greatly contribute to and benefit from the department's strong group working on development economics, trade, and political economy.
Reasonably accessible to all of Latin America, Africa, and India.
Moreover, I have several close friends who have lived in Zurich.
All of them have given me very positive impressions of the research and living environment in Zurich.
Therefore, I am also very thrilled to move to Zurich for my personal reasons as well.