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EDUCATION

Arizona State University
Ph.D in Economics 2018 - 2023 (Expected)

References:

Gustavo Ventura (Co-chair)
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Wyatt Brooks (Co-chair)
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Federal Reserve Bank of Chicago
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University of Wisconsin Madison
M.S. in Economics 2016 - 2018

Yunlin University of Science and Technology
Exchange student in Corporate Finance 2015

Beijing University of Aeronautics and Astronautics
B.A. in Economics 2012 - 2016

RESEARCH FIELDS

Macroeconomics, Economic Development, Technological Change

TEACHING EXPERIENCE

Instructor
ECN 313 Intermediate Macroeconomic Theory Summer 2021

Teaching Assistant
ECN 211 Macroeconomic Principles Spring 2022, Fall 2021, Spring 2021
ECN 411 Current Analysis of the U.S. Economy Spring 2021
ECN 313 Intermediate Macroeconomic Theory Fall 2020
ECN 221 Business Statistics Spring 2020
ECN 416 Game Theory & Economic Behavior Fall 2019

SEMINARS AND CONFERENCES

ASU Macro Workshop; Asia-Pacific Conference on Economics & Finance (scheduled)

AWARDS, SCHOLARSHIPS AND FELLOWSHIPS

Arizona State University Graduate Assistantship	2018 - 2023
Junior Fellow at Center for the Advanced Study in Economic Efficiency	2018 - 2020
Research Assistant for China Gazetteer Project at Harvard University (Supervisor: Richard Freeman)	2015
Beijing University of Aeronautics and Astronautics Exchange Student Award	2015

COMPUTATIONAL SKILLS

Matlab, Stata, Python

WORKING PAPERS

The Shape of Convergence in Growth Miracles: The Role of Human Capital (Job Market Paper)

Abstract: Economists have long studied the role that human capital plays in economic development. The hypothesis of Nelson and Phelps (1966) implies that higher education levels in an economy can facilitate technology diffusion and lead to faster convergence in technology. I incorporate the idea into a growth framework by developing a model of human capital investment, adding a role for human capital in the convergence of productivities towards the technology frontier. This introduces an externality through which individual education decisions affect aggregate productivity. I calibrate my model to the case of South Korea between 1960 and 2019. Like many growing countries, South Korea's experience exhibited convergence in output that was 'S Shaped'. My model matches the 'S Shaped' convergence trajectory well with the half-life of transition being 30-35 years and is consistent with the sharply rising education attainment observed in South Korea. More importantly, the quantitative exercises demonstrate that a significant extent of the externality is required to match the transition path of output in South Korea. If the externality is removed from the model, then one-third of the growth is not accounted for and thus it cannot quantitatively match South Korea's convergence pattern well.

"**Capital Financing Constraints, Size-dependent Distortions, and Aggregate Productivity**" with Galina Vereshchagina

Abstract: We document that firms in developing economies have *limited excess to external financing* and face *size-dependent distortions*. The former friction impedes the growth of small firms, while the latter restricts the operations of relatively large firms. This paper studies how these two frictions interact. It is well understood that in a setting in which firms have unlimited access to capital financing, size-dependent distortions necessarily reduce aggregate output. Our work demonstrates that the effects of size-dependent distortions crucially depend on firms' ability to access external capital. We show that the adverse effects associated with size-dependent distortions drastically reduce, and may even reverse, if firms face capital financing constraints. This occurs because the misallocation effects of capital financing constraints and size-dependent distortions may offset each other, and because the two frictions have opposing impacts along the extensive margin impacting the number and the composition of firms. Our quantitative analysis shows that the size-dependent distortions estimated using the World Bank Enterprise Survey data lead to up to 25 percent of output drop if they are implemented in an economy in which firms face unlimited excess to external financing, but have virtually no effect on aggregate output in the presence of capital financing constraints consistent with the levels of capital-output ratios for most low-income countries. These findings have implications for understanding the cross-country income differences, as well as for policy design.

"**Technical Change, Task Reallocation and Wage Inequality**"

Abstract: This paper empirically investigates wage inequality within the group of skilled workers in the recent four decades in the U.S. using CPS data and finds evidence that the trend of wage growth of the top and bottom 10th percentile of skilled workers significantly diverged starting from 2000. Using a task-based framework of occupation, I find that the changing trend of wage inequality was entirely driven by one category of occupation,

namely the non-routine analytic occupation. Then, I consider in a model task reallocation between two broad task categories, namely, the routine and abstract task, induced by an ongoing investment-specific technical change. In my model, the labor in the routine task is replaced by cheaper machines due to investment-specific technical change, then workers that are less productive in the abstract task enter abstract occupations. As a result, the wage inequality in the abstract task widens because of the reallocation of less productive workers from the routine task to the abstract task, i.e., the "composition effect". In addition, since economic agents tend to postpone the investment in machines after the ongoing investment-specific technical change takes place for a while, the expansion path of wage inequality is not linear but features an acceleration of wage dispersion in the middle of the technical change. The quantitative results suggest that the model is able to provide a well-matched timing and magnitude of the non-linear expansion path in wage inequality that is observed in the data.