Saeed Shaker-Akhtekhane

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Citizenship and Visa Status
   Iran (F-1 visa)

Education
   Ph.D. Economics, The Ohio State University, May 2021 (expected)
      Dissertation: Financial Frictions, Misallocation and Productivity Losses
      Committee: Aubhik Khan (chair), Julia Thomas, Kyle Dempsey

   M.S Economics, East Carolina University, 2015
   M.S Industrial Engineering, Tarbiat Modares University, Iran, 2010
   B.S Mathematics, University of Tabriz, Iran, 2008

Research Interest
   Macroeconomics
   Financial Frictions
   Economic Development

Research Papers (all available for download on my website)

 Job Market Paper:
"Financial Frictions and Productivity Losses: Tyranny of Collateral Revisited"

Abstract: I establish quantitative and empirical evidence on the significance of heterogeneity in business loan collateral as a major source of factor misallocation to reconcile the question: What are the effects of financial frictions on output and aggregate productivity? Self-financing can alleviate, or ideally eliminate, the effect according to the literature. However, the self-financing premise dismisses the fact that collateral and loan rates are directly tied to each other. This disproportionately affects the poor individuals with ideas worth implementing because not only do they face a cap that limits their borrowing ability, they will also end up paying higher interest on their loans because of their low collateral. Therefore, if the financial markets are far from ideal, the tyranny of collateral makes it nearly impossible for a talented but poor entrepreneur to pull herself up by her bootstraps. Using a model that features collateral and loan rates heterogeneity across businesses, I will show the amplifying impact of financial frictions on GDP per capita and total factor productivity (TFP). I will also provide insights on how the entrepreneurs' and the top wealth inequality interact with financial frictions and their significance for misallocation and economic development. My model can disentangle the effects of financial frictions due to enforceability as well as those due to informational frictions. My analysis shows that financial frictions increase inequality at the top and amongst entrepreneurs, and would reduce the U.S. TFP by more than 40% if we were to replace its near-perfect financial markets with a poorly functioning one.

"Impact of Entry Costs on Aggregate Productivity: Financial Development Matters"

Abstract: This paper revisits the question: what is the impact of entry costs on cross country differences in output and total factor productivity (TFP)? I argue that for the countries with low levels of financial development the answer is the conventional one in the literature, that higher entry costs cause misallocation of productive factors and lower TFP. But for the countries with reasonably high levels of financial development the conventional answer doesn't hold. Motivated by observations on cross-country data, I propose a new theory on the impact of entry costs on TFP. In my mechanism, there are two competing forces that affect TFP when entry cost changes: A wealth-based selection force, and a productivity-based selection force. This results in TFP being a hump-shaped function of entry costs. That is, entry costs aren't inherently bad for TFP if their target is to deter low productivity individuals from starting business. I develop an analytically tractable model of rm dynamics with entry barriers and financial frictions and derive the sufficient conditions for the impact of entry cost on TFP in both wealth- and productivity-based selection phases.

"Entry Barriers in a Two-Sector economy with Perfect and Imperfect Financial Markets"

Abstract: In this paper I analyze the impact of entry barriers on a two-sector economy with near-perfect and imperfect financial markets. The literature suggests that higher barriers to entry would hurt the economy through occupational and factor misallocation. However, a separate analysis on economies with nearly perfect and imperfect financial markets show that these results only hold for the economies with imperfect financial structures. In the economies with near-perfect financial markets the entry barriers have almost no impact, or may have positive impact on output or total factor productivity (TFP). This study shows that higher entry costs would hurt the productivity of the sector with high concentration, i.e. with large scaled firms, and would benefit the more competitive sector, i.e. with very small firms. That is, economy-wise, the entry barriers might help or hurt economies depending on their sector/industry structure. In order to analyze the dynamics of entry barriers and their impact on TFP, I develop an entrepreneurship model in continuous time with two sectors in the presence of both financial and physical frictions. My preliminary analysis suggests that higher entry barriers would help the economies with relatively higher share of the small-scaled sector and vice versa.

"Firm Entry and Exit in Continuous Time"

Abstract: In this paper, I will develop analysis of a model of firm's exit and entry in a continuous time setting. I will build my analysis based on Hopenhayn (1992) firm dynamics framework and use the continuous time structure to solve the model. Solving the model in continuous time brings in many advantages such as lower computational cost and tractability of the model. However, there are some challenges too. One of the major challenges is to have entry cost in the model, i.e. to obtain a Hamilton-Jacobi-Bellman equation (HJB) that incorporates the entry cost. I used a form of exit cost as the future value of the entry cost to avoid this problem. In order to do so, I have to keep track of the age distribution of the firms in addition to the shocks distribution, which makes my model richer than Hopenhayn's (1992). To solve for the joint stationary distribution of the firms, I introduced a simple process for aging and got the Kolmogorov forward equation using the age and shock processes. Another important contribution of this paper is to introduce a way to deal with the Kolmogorov equation in two states with discontinuity and combine them into one equation that governs the state of the economy. The results obtained in this paper are in line with those reported in Hopenhayn (1992). However, the methods, tools, and the way of approaching the model differs depending on whether we solve the model in discrete or continuous time. The tools and procedures developed in this paper can easily be extended to other optimal stopping time problems.

Conference Presentations/Invitations

2020	Midwest Economics Association, 84th Annual Meeting, Evanston, IL, USA (cancelled due to pandemic)
2014	Conference on Probability Theory and its Applications, Athens, Greece
2012	International Conference on Econometrics and Application, Sanandaj, Iran

Research Experience and Other Employment

Summer 2017   Research fellow, AEA summer program at Michigan State University,

Professional Activities

Reviewed for: *Journal of Physics: Conference Series (International Conference on Physics, Mathematics and Statistics)*

Honors, Scholarships, and Fellowships

2019	Departmental Citation in Teaching Excellence
2015-2016	Journal of Money, Credit and Banking Fellowship
2011	Tehran Stock Exchange Organization's Thesis Award

Teaching Experience

Summer 2019, Summer 2020	Elementary Econometrics, Independent Instructor
Fall 2016 Spring 2018	Intermediate Microeconomics, teaching assistant
Autumn 2018	Intermediate Macroeconomics, teaching assistant
Autumn 2019	Health Economics, teaching assistant

References

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