Alireza Mohammadi Sepahvand

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EDUCATION

Ph.D. in Economics   2021 – 2025
Monash Business School, Monash University, Australia

Visiting Ph.D. Student in Economics   2024
Faculty of Economics, University of Cambridge, UK

M.Sc. in Economics   2016 – 2019
Graduate School of Economics, Sharif University of Technology

B.Sc. in Mathematics   2011 – 2015
Department of Mathematics, Sharif University of Technology

ACADEMIC ROLE

- **Postdoctoral Researcher in Economic Theory & Theoretical Industrial Organization**, University of Edinburgh, United Kingdom   Apr 2025 – Present

RESEARCH AREAS

- Economic Theory, Political Economy, Public Economics, Network Economics

WORKING PAPERS

- **Plundering Coalitions**
  with Weijia Li. [Job Market Paper]
  Abstract: We develop a model to study coalitions that extract the resources of outsiders. The players in our model are endowed with a power and resources. The ruling coalition plunders outsiders, distributes the plundered resources among its members, and guarantees that insiders' resources remain safe. Under natural conditions, we predict that a unique ruling coalition exists using both axiomatic and non-cooperative approaches. We further study the resilience of the ruling coalition to shocks affecting powers and resources of both insiders and outsiders, as well as the intensity of plundering. We show that a coalition with a classic hierarchical structure of army and bureaucracy, where powers and resources are equal within each class but strictly higher in the higher class, exhibits a (weakly) higher resilience to external shocks affecting the outsider's power and resources. The exception is when the plundering intensity is "relatively weak," where the internal distribution of power and resources does not impact the external resilience. Our final results derive insights into how the intensity of plundering impacts the internal and external resilience of the ruling coalition in various political environments.

- **Uniform and Participation-expanding Reforms in Decentralized Redistribution: Who Gains and Who Loses?**

  Abstract: Across many settings, from social transfers to education and health services, reforms that aim to make access uniformly easier for everyone often exacerbate inequality. When access to the redistributive surplus is determined through competition, such reforms increase players' efficiency in the contest but also raise the endogenous efficiency threshold for participation. I formalize this threshold-shifting mechanism in a model of decentralized redistribution, where heterogeneous efficiencies determine both who competes and how the redistributive surplus is allocated. The model delivers two main results. First, a uniform efficiency gain—i.e., equal reductions in access costs—does not expand participation. Instead, it amplifies inequality among participants by reinforcing the relative efficiency of those who were already highly efficient prior to the reform. Yet, such a reform also reduces contest-induced welfare loss, thereby giving rise to an equity–efficiency trade-off for policymakers. Second, a participation-expanding reform that brings excluded players into the contest can reduce both inequality and welfare loss, particularly when: (i) the new entrants are sufficiently efficient relative to the average participant; and (ii) the Herfindahl–Hirschman Index (HHI) of endogenous contest strengths—measuring the extent to which players' efficiencies exceed the participation threshold—is sufficiently high before the reform; for example, when a few strong participants dominate the competition for redistributive surplus.

- **A Centered Index of Spatial Concentration: Expected Influence Approach and Application to Population and Capital Cities**
  with Filipe R. Campante and Quoc-Anh Do. (R&R at Theoretical Economics)
  Abstract: We construct a general axiomatic approach to measuring spatial concentration around a center or capital point of interest. Building on expected utility theory, we propose a basic axiom of independence (subgroup consistency), and show that it implies an expected influence representation of the concentration order. We prove that two additional axioms (monotonicity and rank invariance) imply that the associated influence function is a decreasing isoelastic function of the distance to the capital. We apply our index to measure the concentration of population around capital cities, show its advantages over alternative measures, and explore its correlations with many variables of interest.

- **Finding the Key Player with Simultaneous Social Planner Intervention**
  with Arthur Campbell and Yves Zenou . (draft available)
  Abstract: This paper studies the simultaneous intervention of a social planner in a criminal network. The social planner implements a targeting policy, and criminals decide upon their level of effort simultaneously based on their beliefs about their neighbors before the realization of the network. We provide conditions that guarantee the existence and uniqueness of the Bayesian Nash equilibrium of the game. The equilibrium is fully characterized by a degree threshold; that is, only criminals with a degree above this threshold are targeted with positive probabilities. Furthermore, criminals with the same degrees adopt identical criminal efforts proportional to their degree in equilibrium. We further conduct comparative statics with respect to the network's characteristics and the social planner's budget. Our final analysis compares the aggregate crime reduction from the simultaneous intervention to that of the sequential intervention.

WORK IN PROGRESS

- **Leave or Reclaim? The Impact of Demonstrations on Migration Intentions**

HONORS AND AWARDS

- **Bronze Medal**, 21st National Scientific Olympiad in **Economics**, Iran, 2016
- **Student Excellence Award** for Academic Performance, Monash University, 2021
- **Monash Department Funded Graduate Research Scholarship (Fees and Stipends)**, 2021–2024
- **Enhanced International Research Experience Grant Scheme**, Monash Business School, 2024

TEACHING EXPERIENCE

- **Lecturer:** Principles of Economics; Game Theory.
- **Teaching Assistant:**
  * **Graduate Courses:** Microeconomics I, Financial Econometrics, Advanced Mathematical Economics.
  * **Undergraduate Courses:** Microeconomics I, Intermediate Microeconomics, International Economics, Game Theory, Principles of Economics, Statistics, Linear Algebra, Discrete Mathematics, Topology, and Calculus II.

SKILLS AND ACTIVITIES

- **Programming**: Proficient in R; familiar with Python
- **Software & Tools**: Proficient in Stata and LaTeX
- **Languages**: Persian (Native); English (Proficient)
- Co-organiser of the **Applied Young Economist Webinar**, supported by the Monash–Warwick Alliance (2022–2024)
- Founder of **Student Scientific Association of the Faculty of Economics**, Sharif University of Technology (2017)

REFERENCES

- **Professor Kaveh Majlesi**
  Professor of Economics, Monash University
  Email: Kaveh.majlesi@monash.edu

- **Professor Arthur Campbell**
  Professor of Economics, Monash University
  Email: Arthur.campbell@monash.edu

- **Professor Yves Zenou**
  Professor of Economics, Monash University
  Email: Yves.zenou@monash.edu

- **Dr. Weijia Li**
  Lecturer in Economics, Monash University
  Email: Weijia.li@monash.edu