

Barron Tsai

[✉ yt158@duke.edu](mailto:yt158@duke.edu) [\(919\) 638 8608](tel:(919)6388608) [🔗 yhbarrontsai.github.io](https://yhbarrontsai.github.io)

Education

Ph.D. in Economics , Duke University	Aug 2020 – May 2026 (expected)
• Advisors: Rafael Dix-Carneiro, Daniel Yi Xu, Laura Castillo-Martinez, Federico Huneeus, Matthias Kehrig	
MPhil in Economics , HKUST	Sep 2018 – Jun 2020

BBA in Global Business, Economics, HKUST

Sep 2014 – Jun 2018

Research Fields

Primary: Trade

Secondary: Industrial Organization, Macroeconomics

Working Papers

When Cutting Out the Middleman Backfires: Disintermediation, Wholesale Markups, and Misallocation

Job Market Paper

- Wholesalers economize on the fixed costs of forming direct buyer-supplier links but, due to scale-dependent entry barriers, can sustain markups that distort input prices and misallocate resources. I build a model of production network formation with endogenous direct vs. indirect trade, wholesale entry/exit, and markups. The model predicts that improvements in direct trade efficiency shrink the demand for intermediation, force marginal wholesalers to exit, and — paradoxically — increase markups among the surviving intermediaries, partially offsetting the efficiency gains from disintermediation. I test these predictions using Turkey's staggered fiber roll-out, instrumenting provincial connectivity with distance to the pre-existing oil-and-gas pipeline network (Demir, Javorcik and Panigrahi, 2023). Faster fiber growth lowers the indirect trade share, reduces wholesaler entry, and raises wholesale markups. Calibrating the model to the estimated elasticities implies that endogenous markup increases reduce welfare gains by about 1.4 percentage points — roughly 30% of baseline benefits. The results underscore the need to evaluate technology-induced disintermediation in general equilibrium, and highlight the role of complementary competition policies in realizing the full welfare potential of digital infrastructure investments.

Work in Progress

Internal Trade Barrier and Spatial Misallocation

- I study how reductions in internal trade costs, driven by the rollout of fiber internet across Turkish provinces, reshape product-market competition and aggregate efficiency. First, I document a pro-competitive effect: provinces experiencing faster fiber rollout saw a relative decline in aggregate manufacturing markup, with markedly larger declines in sectors that are more tradable. Second, I develop a spatial extension of Atkeson–Burstein that embeds sectoral heterogeneity in tradability and internal migration. The model quantifies welfare changes that operate through two opposing forces. On the one hand, falling internal trade costs reduce aggregate markups and within-province markup dispersion. On the other hand, uneven infrastructure development can widen markup dispersion across provinces, misallocating workers toward low-markup provinces and dampening the aggregate gains. The net effect hinges on the initial spatial distribution of markups and on each province's comparative advantage in more versus less tradable sectors. These findings provide a rationale for place-based policy aimed at correcting spatial distortions due to product-market power. The potential for uneven infrastructure development to worsen aggregate efficiency provides a rationale for a more balanced approach to development within a country.

Optimal Tariffs with Granular Importers

- When a few large importers internalize terms-of-trade effects, the standard optimal-tariff motive shrinks. Unlike granular seller power (Gaubert and Itskhoki, 2021), granular buyer power can eliminate the rationale for tariffs. This creates a complementarity between antitrust and trade policy: reducing importer concentration raises the

optimal tariff by weakening private internalization of the terms-of-trade effect.

Research and Work Experience

Ph.D. Graduate Assistant , Duke University	Durham, NC
• Research Assistant to Prof. Laura Castillo-Martinez (Fall 2022 – Spring 2024)	Aug 2022 – May 2024
• Research Assistant to Prof. Federico Huneeus (Fall 2023)	
Part-time Research Assistant , HKUST	Hong Kong
• Research Assistant to Prof. Edwin Lai	Jun 2017 – Sep 2018
Research Intern , Chartwell Capital	Hong Kong
	Jun 2017 – Aug 2017

Teaching Experience

Teaching Assistant , Duke University	Durham, NC
• Macroeconomic Analysis I (PhD) ; Instructor: Prof. Craig Burnside, Prof. Cosmin Ilut; Fall 2021	Sep 2021 – Present
• Macroeconomic Analysis II (PhD); Instructor: Prof. Andrea Lanteri, Prof. Kyle Jurado; Spring 2022	
• Economics Principles (Head TA; UG); Instructor: Prof. Thomas Nechyba; Fall 2024, Fall 2025	
• Intermediate Macroeconomics (UG); Instructor: Prof. Matthias Kehrig; Spring 2025	
Teaching Assistant , HKUST	Hong Kong
• Economic Development and Growth (UG); Instructor: Professor Sujata Visaria; Fall 2018	Sep 2018 – Jun 2019
• Environmental Economics (PG); Instructor: Professor Yatang Lin; Spring 2019	

Awards and Fellowships

- Summer Research Fellowship, Duke University
- Academic Achievement Medal, HKUST
- Academic Excellence Award, HKUST
- Fung Scholarship
- Arnhold & Co., Ltd. Scholarship
- University Admission Scholarship, HKUST

Skills

Programming: Julia, Matlab, Python, Stata, R, ArcGIS

Language: English (Fluent), Cantonese (Native), Mandarin (Fluent)

References

Rafael Dix-Carneiro

Professor of Economics

Duke University

rafael.dix.carneiro@duke.edu ↗

Daniel Yi Xu

David Rubenstein Distinguished Professor of Economics

Duke University

daniel.xu@duke.edu ↗

Federico Huneeus

Assistant Professor of Economics

Duke University

federico.huneeus@duke.edu ↗