

Edward Wiles

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Academic Positions

Postdoctoral Academy Scholar, Harvard Academy for International and Area Studies 2025-2027

Education

PhD Economics, Massachusetts Institute of Technology 2019-2025
MSc Economics, London School of Economics 2017-2018
BSc Economics, London School of Economics 2012-2015

Research Interests

Trade, Development Economics, Contracts

Working Papers

[Relational Frictions along the Supply Chain: Evidence from Senegalese Traders](#) (with Deivy Houeix)

Search and trust frictions have historically made it hard for small firms in lower-income countries to buy inputs from foreign markets. The growth in smartphone ownership and social media usage has the potential to alleviate these barriers. Informed by a dynamic model of relational contracting, we run a field experiment leveraging these technological tools to provide exogenous variation in (1) search frictions and (2) trust frictions (adverse selection and moral hazard) in a large international import market. In the search treatment, we connect a randomly selected 80% of 1,862 small garment firms in Senegal to new suppliers in Türkiye. We then cross-randomize two trust treatments that provide additional information about the types (adverse selection) and incentives (moral hazard) of these new suppliers. Reducing search frictions is sufficient to increase access to foreign markets: in all treated groups, firms are 26% more likely to have the varieties a mystery shopper requests, and the goods sold are 30% more likely to be high quality. However, the trust treatments are necessary for longer-term effects: using both transaction-level mobile payments data and a follow-up survey, we show that these groups are significantly more likely to develop the connections into relationships that persist beyond the endline survey. These new relationships lead to increases in medium-run profit and sales. Finally, we use the treatment effects to estimate the model and counterfactually lower the trust frictions among the whole supplier pool for a given firm, finding that the largest gains come from alleviating adverse selection.

[Quantifying the Sensitivity of Quantitative Trade Models](#) (with Habib Ansari and Dave Donaldson)

A modern revolution in spatial economic modeling aims to answer quantitative counterfactual questions by using models that feature micro-level heterogeneity. This heterogeneity is then often assumed to come from particular parametric families—such as Frechet in Eaton and Kortum’s (2002) Ricardian model. While these parametric choices greatly enhance the tractability of model simulations, it is unknown how sensitive the answers to counterfactual questions are to these assumptions of convenience because there are infinitely many alternative distributions of heterogeneity to be evaluated. We overcome this challenge by building a general trade model that leverages recent advances in the robustness literature. Our method calculates sharp bounds on the values of model counterfactuals that could obtain—while still exactly matching all aggregate trade data points, a gravity-like moment condition, and satisfying equilibrium constraints—under all possible distributions of underlying heterogeneity that lie within a given divergence from a chosen reference distribution. Applying this method to the Eaton and Kortum (2002) model, we find that the gains from trade in these models could be several times larger or smaller

than they appear to be under standard benchmark distributions, even if heterogeneity is drawn from a distribution that is at least as similar to Frechet as are the types of parametric alternatives that are commonly explored in sensitivity analysis.

Publications

[Losing Prosociality in the Quest for Talent? Sorting, Selection, and Productivity in the Delivery of Public Services](#) (with Nava Ashraf, Oriana Bandiera, and Scott S. Lee)

American Economic Review 2020, 110(5): 1355-1394

Awarded the Arrow Award for the best paper published in health economics in English in 2020, from the International Health Economics Association

We embed a field experiment in a nationwide recruitment drive for a new health care position in Zambia to test whether career benefits attract talent at the expense of prosocial motivation. In line with common wisdom, offering career opportunities attracts less prosocial applicants. However, the trade-off exists only at low levels of talent; the marginal applicants in treatment are more talented and equally prosocial. These are hired, and perform better at every step of the causal chain: they provide more inputs, increase facility utilization, and improve health outcomes including a 25 percent decrease in child malnutrition.

Selected Work in Progress

A Quantitative Model of Relational Contracts in Trade

Most international trade takes place in long-term buyer–seller relationships that expand gradually over time. A growing body of empirical evidence suggests that this pattern may reflect the importance of relational contracting: when formal enforcement is limited, continued trade itself provides incentives. Such self-enforcing relationships make trade adjustment inherently dynamic—new matches must build trust and scale from scratch—yet the quantitative trade models used to study shocks are typically static or sacrifice tractability when dynamics are introduced. I develop a dynamic multi-country general-equilibrium model that embeds optimal relational contracts within a tractable Eaton–Kortum-style framework. The model generates endogenous relationship deepening—quantities grow with relationship age—as an equilibrium outcome of self-enforcing incentives. I show that this optimal age profile scales linearly with the surplus, allowing the model to aggregate cleanly. The transition path after a shock is therefore straightforward to compute using exact hat algebra, and steady-state trade shares coincide with a static Eaton–Kortum model with endogenous origin-specific wedges. The new parameters governing the contracting friction can be estimated using increasingly available firm-to-firm trade data, and I illustrate with applications that compare the dynamic welfare consequences with those implied by static models of removing state-level border frictions in India and of the 2018-19 US tariffs.

The Impact of Regional Integration on Trade and Supply Chains: Evidence from a VAT Reform in India (with Tishara Garg)

We use a landmark 2017 fiscal reform in India to quantify the gains to regional economic integration and to study how this affects the organization of supply chains. Using district-level data aggregated from firm-to-firm VAT transactions for the entire of India, we first show in the cross-section that state borders are comparable to country borders in other settings, with trade decreasing by 76% at the border. We then use event-study style regressions derived from a standard quantitative trade model to study the reform—which eliminated countrywide tax-induced interstate trading costs—and find that it increased interstate trade by 15% on average. With this estimated elasticity, the model implies that the reform increased aggregate GDP by 1% on average, with almost all districts experiencing gains. To examine how supply chains responded—including the extent to which firms shifted towards a more “hub and spokes” network, as in the classic proximity-concentration tradeoff—we are currently exploiting the micro-level firm-to-firm VAT data.

Fellowships, Honours, and Awards

TA of the Year Award (Undergraduate Economics Association, MIT)	2023-2024
Graduate Student Council Teaching Award (awarded to 5 TAs or professors MIT-wide)	2021-2022
Global Priorities Fellowship (University of Oxford)	2020-2022
MIT Graduate Student Fellowship	2020-2021
Arrow Award (International Health Economics Association)	2020
Kennedy Scholarship (national merit scholarship awarded to ~10 UK nationals per year)	2019-2020
John Hicks Prize (ranked first in LSE MSc Economics)	2018

Conference and Workshop Presentations

IGC/EGC Conference on Firms, Trade, and Development (Yale University)	2025
Institutions, Trade and Economic Development Workshop (University of Alberta)	2025
NBER Summer Institute, International Trade and Investment	2025
Northeastern Universities Development Consortium (NEUDC)	2024
Cities and Development Workshop (Harvard University)	2024
Junior Trade Workshop (LSE-Warwick)	2024

Research Grants

PEDL (£14,600) (with V. Bassi, D. Houeix, M. Keenan)	2025
PEDL (£19,500) (with D. Houeix)	2025
IGC (£18,561) (with D. Houeix)	2025
International Science Partnerships Fund (£99,866) (with N. Ashraf, O. Bandiera, V. Mukonka)	2024
IGC (£19,981) (with N. Ashraf and O. Bandiera)	2024
Shultz Fund, MIT (\$15,833.33) (with D. Houeix)	2024
IGC (£20,000) (with N. Ashraf and O. Bandiera)	2023
PEDL (£31,000) (with D. Houeix)	2023
PEDL (£20,720) (with T. Garg)	2023
Shultz Fund, MIT (\$14,251.67) (with D. Houeix)	2023
Shultz Fund, MIT (\$14,982.76) (with D. Houeix)	2022
Shultz Fund, MIT (\$6,000) (with T. Garg)	2022
STEG (£11,960) (with T. Garg)	2021
Shultz Fund, MIT (\$12,000) (with I. Puri)	2020
IGC (£9,346) (with N. Ashraf)	2019

Referee Activity

American Economic Review, Econometrica, Economica, Journal of Development Economics, Journal of Economic Behavior and Organization, Journal of Political Economy, Labour Economics

Other Working Experience

Currency Derivative Structuring, Deutsche Bank, London	2015-2017
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Personal Details

Languages: English (Native), French (Fluent), Spanish (Intermediate)
Citizenship: UK, Canada