Research Statement

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One of the oldest questions in economics is why some countries are so much poorer than others.

I study this question through the lens of firm organization in developing countries. My research agenda centers on two broad themes:

1. **The first examines firm productivity and growth in developing countries**, using micro data to study heterogeneity in firm behavior, and the aggregate implications of this heterogeneity for trade and macro models. I focus on two mechanisms underlying firm productivity:
   (a) the internal organization of firms
   (b) policy-induced distortions that lead to the misallocation of resources across firms.
2. T**he second theme studies how new technologies, in particular, artificial intelligence (AI), shape state capacity in developing countries** using two large-scale RCTs in partnership with over 1,500 courts and tax officers in India [news article]. Weak state capacity—from overburdened courts to inefficient bureaucracies—prevents markets from functioning efficiently and directly constrains firm growth. By examining how AI can strengthen these institutions, this theme is closely linked to the first.

These themes reflect a common motivation: understanding how organizational choices, markets, and state capacity determine productivity and long-run economic development.

My research is built on large-scale institutional partnerships spanning multiple government ministries and judicial systems across India. These include ongoing collaborations with India's Ministry of Corporate Affairs, Ministry of Statistics, Labor Bureau, and tax authorities, as well as 9 State High Courts in India and new partnerships with the Supreme Courts in Ghana and Zambia. These partnerships have enabled me to found and direct the India Data Lab Initiative to harmonize unit-level microdata from India's premier household and firm surveys. IDLI's primary goal is to make these datasets more accessible by harmonizing and integrating them into a unified online platform, enabling users to seamlessly merge various surveys using common geographical and industry identifiers.

1 Firm Productivity and Growth in Developing Countries

Internal Organization of Firms in Developing Countries. A central part of my research agenda looks within firms to understand how managerial choices shape productivity. In my job market paper, *When Competition Compels Change: Trade, Management, and Firm Productivity*, I examine how import competition induces family-managed firms in India to professionalize their top management. Family management often restricts the pool of senior leadership to kin, privileging family ties over talent. I exploit a previously unstudied, product-specific import competition shock in India, assembling novel data on family-managed firms—the predominant form of corporate governance worldwide—with tenure records and family ties for over 6 million company executives and directors. This data collection was made possible due to a 4-year, ongoing partnership with India's Ministry of Corporate Affairs. Using an event-study design, I show that the least productive firms respond to import competition by replacing family managers with non-family, professional executives. Firms that

professionalize experience productivity gains of over 30 percent. I then embed these micro findings into a Melitz-style trade model with an endogenous managerial choice, showing that within-firm organizational adjustments can account for a substantial share of the aggregate productivity gains from trade. The broader implication is that markets alone, through competitive pressure, can partially correct inefficient managerial practices that stem from taste-based preferences such as kinship, caste, or gender.

Building on this, I am working with Nick Bloom, Pete Klenow, and co-authors to link survey data on 3,000 Indian firms' management practices (collected in the style of the World Management Survey) with my administrative data on firm directors. Merging these unique dataset allows us to directly test how family involvement on boards of directors affects management quality. The results provide a deeper understanding of why management quality is lower in developing countries and complement the mechanism documented in my job market paper.

A related project, *Meritocracy Across Countries*, also examines how taste-based preferences shape the allocation of talent. My co-authors Oriana Bandiera, Ilse Lindenlaub, Chris Moser, Andrea Prat, and I investigate whether worker-job matching is based on productive attributes or on idiosyncratic traits unrelated to productivity. We show that richer countries, where productive matches are more strongly rewarded, exhibit greater meritocracy in labor markets. Together with my work on family firms in India, this project highlights how non-productive preferences can distort talent allocation both within firms and in the broader labor market, and how market incentives can mitigate these distortions.

In related work with Namrata Kala and Utkarsh Saxena, we study how bans on foreign direct investment (FDI) from China affected Indian firms. FDI does not only provide financing but also transfers managerial know-how. By examining how ownership and organizational structures change after the ban, this project sheds light on how international capital flows shape firm organization in emerging economies.

Firm- or Market-Level Distortions. A second strand of my work studies distortions in the allocation of resources across firms. In *How Much Do Firms Save? Financial Frictions and the Microeconomic Implications of the Euler Equation*, I test a standard prediction of growth models with financial frictions: constrained firms should self-finance in order to relax borrowing limits. Using Indian firm-level data and a staggered financial liberalization reform, I show that treated firms do not behave in line with this canonical prediction. This matters for how we interpret evidence on capital misallocation. In the work-horse models with standard parameter values, aggressive self-financing should push capital toward high marginal product firms and compress cross-sectional dispersion in marginal products. Yet the misallocation literature, exemplified by the work of Hsieh and Klenow, documents large and persistent dispersion in marginal products. My evidence suggests that the mechanism that would mitigate these wedges through internal saving may be weak in developing countries.

In *Labor Market Frictions, the Organization of Labor, and Structural Change*, with Chinmay Lohani and Utkarsh Saxena, I exploit a 1982 amendment to India's Industrial Disputes Act that lowered the threshold for mandatory government approval of layoffs from 300 to 100 workers. Digitizing plant-level data on over 50,000 factories per year, we show that this reform reduced labor demand disproportionately in labor-intensive sectors. The results suggest that rigid labor laws may have tilted India's growth path away from labor-intensive manufacturing toward services, bypassing the

industrialization stage typically seen in development.

Finally, in *Aggregate Impacts of Command-and-Control Environmental Policy*, my coauthors Utkarsh Saxena and Henry Zhang, and I study court-ordered mining bans in India as a form of distortionary regulation. We show that even temporary bans caused persistent declines in employment, capital, and borrowing among downstream firms, illustrating how blunt enforcement tools can misallocate resources through production networks. This work highlights the importance of regulatory design in shaping aggregate productivity, especially in settings with weak state capacity.

2 Artificial Intelligence and State Capacity in Developing Countries

Technological change not only transforms firms but also the state. In many developing countries, weak state capacity hampers markets from functioning efficiently. My second theme investigates how AI tools can strengthen bureaucratic and judicial capacity in India, in collaboration with governments and courts. This work combines large-scale field partnerships with cutting-edge questions on the political economy of technology adoption.

In *AI and Bureaucratic Decision Making: Evidence from India*, with Daron Acemoglu and Utkarsh Saxena, we study the use of an AI-based decision-support tool that predicts litigation outcomes for Indian customs officers. The tool is trained on case law and statutory provisions and generates probabilistic assessments of the success of an appeal. We implement this tool in partnership with India's customs authority to test whether it reduces unnecessary appeals and improves bureaucratic efficiency. This project will provide some of the first rigorous evidence on the role of AI in shaping bureaucratic incentives and efficiency in developing countries.

In *AI and Judicial State Capacity in India*, Utkarsh Saxena and I study the deployment of Adalat AI, a nonprofit providing AI-powered transcription, translation, and case management tools in Indian courts. India's judiciary faces a backlog of over 50 million cases, and trials often last more than a decade. Working with over 1,500 district courts in multiple Indian states, we evaluate whether AI tools that automate clerical tasks accelerate case resolution and expand access to justice. These tools are already operational in thousands of courtrooms across India, making this one of the largest natural experiments on AI adoption in public institutions worldwide.

Future Research Agenda

My long-term research agenda advances both themes in parallel. On firms and productivity, I plan to deepen the integration of micro-level data on managerial practices with structural models of trade and growth, extending my India-based work to cross-country settings. I am especially interested in how organizational choices within firms interact with distortions across firms to shape aggregate outcomes. On AI and state capacity, my future work will test how governments can harness technology to improve service delivery in contexts ranging from courts to taxation to healthcare. By combining administrative partnerships, new data, and theory-driven empirical analysis, my aim is to provide a unified understanding of how both firms and states in developing countries can be organized more efficiently to foster productivity and long-run growth.