

Faraz Hayat

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Summary

Economist with strong research and policy experience. I combine my background in research with my experience working with governments to help shape policy.

Education

University of Chicago

PhD Economics

2016–2022

University of Chicago

MA Economics

2016–2018

Swarthmore College

Double BA: Mathematics, Economics

2010–2014

Experience

International Growth Centre (IGC) at London School of Economics

Lahore, Pakistan

Post-Doctoral Scholar

2022–Present

- Developed an energy, environment, and climate change research agenda for Pakistan
- Led engagement with policy makers to further policy and research:
 - Spearheaded research with LESCO, an electric utility, to measure the ROI and welfare impacts of implementing technology, offering financial incentives, and increasing audits to reduce electricity theft
 - Strengthened the capacity of the Environment Protection Department of Punjab in energy market regulation by training staff and developing a \$700k proposal for piloting an Emissions Trading System in Lahore, which has been officially approved by the government

Ministry of Energy and Federal Board of Revenue, Government of Pakistan

Islamabad, Pakistan

External Advisor

2019–Present

- Presented confidential analyses to the PM and Cabinet on electricity losses, tariffs, subsidy reforms
- Recommendations on industrial energy subsidies adopted at the national level
- Protocols to measure tax evasion implemented on Federal Board of Revenue's WeBOC platform
- Managed a team of six analysts and embedded advisors

Energy Policy Institute at UChicago (EPIC)

Chicago, US

Research Assistant

2014–2016

- Used Stata, Python, and R, to clean large administrative datasets, and to implement econometric analyses, such as event studies, and regression discontinuity design, for papers published in top academic journals
- A select few of the papers are:
 - Adapting to Climate Change: The Remarkable Decline in the U.S. Temperature-Mortality
 - The Local Economic and Welfare Consequences of Hydraulic Fracturing

Research Projects

Do Value-Added Taxes Distort Input Decisions? Evidence from Pakistan

- Abstract: We examine how firms' input choices respond to the value-added tax (VAT) on purchases, using detailed VAT return data from Pakistan and a quasi-experimental variation in electricity VAT rates. Contrary to traditional theories that intermediate VATs don't affect production decisions, our study reveals a significant elasticity of electricity demand to VAT rates (-0.81). These findings aren't attributed to tax evasion shifts but to frictions in the VAT refund system. Specifically, many firms, not collecting VAT on output, depend on government reimbursements for their VAT credits, explaining our results.

Pushing on a String? Price and Enforcement Interventions in Pakistan's Power Sector

- Two RCTs with government on (i) using religious messaging to change social norms on electricity payments and (ii) using subsidies to estimate elasticities of theft.
- With R. Burgess, T. Dobermann, M. Greenstone, and U. Naeem
- Grants: £168k (igc), \$75k (j-pal), \$93k (weiss fund)

Role of Seasonal Credit in Facilitating Adaptation to Climate Change

- An RCT with an NGO on measuring the welfare effects of providing loans in summer to impoverished households in rural Pakistan.
- With *R. Burgess, T. Dobermann, M. Greenstone, and U. Naeem*
- Grants: \$45k (*j-pal*)

The Economic Costs of Distorted Power Tariffs: Evidence from Power Purchase Agreements (PPAs) in Pakistan

- Assembling a database on all PPAs to measure how asymmetric information and regulatory capture distort power tariffs and create misallocation.
- With *T. Dobermann* and *S. Srivastav*
- Grants: £12k (*igc*)

Cleaning Lahore's Air: Information Creation and Disclosure

- Constructing a database of factory level emissions in Lahore to empower regulators, and improve air quality.
- With *M. Greenstone* and *U. Naeem*
- Grants: £40k (*igc*)

Financial Frictions and Variable Markups

- Analyzing the cost of financial frictions in the presence of variable markups by building a quantitative heterogeneous-agent model of producer dynamics, and calibrating the model to Pakistani data.
- With *A. Tsiflis*

Reinventing Pakistan's Welfare State: Replacing Energy Subsidies with Targeted Transfers

- Reforming energy pricing to deliver energy subsidies through targeted transfers instead.
- With *R. Burgess, T. Dobermann, M. Greenstone, and U. Naeem*
- Grants: £56k (*igc*)

The Heterogeneous Impacts of Market Integration: Evidence from Pakistan's Motorways

- Measuring heterogeneous impacts of transportation infrastructure using large-scale administrative data.
- With *T. Dobermann* and *U. Naeem*
- Grants: £15k (*steg*)

Other Policy Work

Golub, Stephen, and Hayat, Faraz. Employment, Unemployment, and Underemployment in Africa, *Oxford Handbook of Africa and Economics 2015*.

Dobermann, T., Hayat, F., Naeem, U., Qaddus, M.K., and Raza, M. (2020). Building a Healthy Power Sector in Pakistan, *Government of Pakistan report*.

Dobermann, T., Hayat, F., Sugandha, S., (2024). Responding to Pakistan's Climate Crisis, *Policy Podcast, Consortium for Development Policy Research*.

Teaching

University of Chicago

Teaching Assistant

2016–2022

- Courses included graduate public economics, and undergraduate econometrics, energy markets, and environmental and urban economics

Technical Skills

Programming: Python, Julia, R, Stata, LaTeX, QGIS

Languages

Languages: English, Urdu