FARASAT A.S. BOKHARI

Associate Professor University of East Anglia

January 2023

 $\begin{array}{c} \textbf{SCHOOL} \ \textit{of} \ \textbf{ECONOMICS} \\ \textbf{\&} \ \textbf{CENTRE} \ \textbf{FOR} \ \textbf{COMPETITION} \ \textbf{POLICY} \end{array}$

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Education

- Post Doctoral Fellow, School of Public Health, University of California, Berkeley 2001-2003.
- Carnegie Mellon University, Ph.D. in Public Policy and Management, 2001.
- Bard College, B.A. in Economics and Physics, 1993.

Summary

I am an economist with twenty years of experience in research, publishing, consulting, and teaching. My research falls into two overlapping areas: (i) industrial organization and competition economics (mostly applied to the health sector e.g. hospitals, and pharmaceuticals) and (ii) health outcomes and health policies. The latter also spill into issues of education, gender, and racial equity.

I serve as a Co-Editor at Economic Inquiry where I mostly handle applied papers and concurrently also serve as the journal's Data-Editor for its replication policy. In the past, I have served on the NIHR's Research for Patient Benefits funding committee. I am also the Research Director for the School of Economics and Training Director for the Center for Competition Policy at the University of East Anglia.

Currently, I am working on research related to policies to address the rise of antibacterial resistance via managing the demand for broad- vs narrow-spectrum antibiotics. I am also working on evaluating the impact of alcohol regulations such as a ban on non-linear pricing or establishing price floors.

My work in pharmaceuticals focuses on firm strategies and how they impact consumer welfare, firm profits, and growth and which of these strategies may be of concern. I have several ongoing projects related to this work. I have been cited in (or given interviews to) various news outlets such as Bloomberg Law, New York Times, BBC, BBC World Service, AFP, France 24, The Guardian, and South African Broadcasting Corporation among others. Relatedly, I was also invited to give a plenary talk at the OECD's Global Forum on Competition in 2014. This body of work lead to a successful submission of an impact case study for REF2021 and focused on the anti-competitive and exploitative practices of pharmaceutical firms in the UK.

I have taught undergraduate, master's, and PhD students as well as working professionals. To economics students, I have taught microeconomics, econometrics, statistics, math methods, industrial organization, and health economics (graduate and undergraduate levels). I have also taught health economics and policy to medical and public health students, cost-effectiveness analysis to medical and public health professionals, information systems and management science to public policy students, and competition economics and/or IO to professionals from regulatory agencies and consulting firms. Currently, I both teach in and serve as the program co-director for the Postgraduate Certificate in Competition and Regulatory Policy run via CCP at UEA.

Professional Experience

2012-Present: Associate Professor. School of Economics, Faculty of Social Science, University of East

Anglia, Norwich, UK. Affiliated faculty at Centre for Competition Policy, UEA.

2021-Present: **Co-Editor**. Economic Inquiry.

2023-Present: Academic Visitor. Competition and Markets Authority, London, UK.

2010-2012: Lecturer. Department of Primary Care and Public Health Sciences, School of Medicine,

Kings College London, London, UK. Visiting Faculty (by courtesy) at Department of Health and Social Policy, London School of Economics and Political Science, London,

UK.

2010-2012: **Health Economics Consultant**. Grant and bid consultancy services for Research Design

Service (RDS) London, National Institute for Health Research (NIHR), London, UK.

2010-2014: **RfPB Panelist**. Funding committee panelist for Research for Patient Benefits (RfPB),

East of England Region, National Institute for Health Research.

2003-2010: Assistant Professor. Department of Economics, Florida State University, Tallahassee,

FL. Affiliated Faculty at Nicholas Petris Center on Health Care Markets, University of California, Berkeley, CA and Pepper Institute on Aging & Public Policy, Florida State

University, Tallahassee, FL.

2003-2005: Visiting Consultant. Health Financing for the Health Systems Development Cluster,

World Bank, Washington, DC. (summers only).

2001-2003: **Postdoctoral Scholar**. School of Public Health, University of California, Berkeley. Funded

by Agency for Healthcare Research and Quality.

2000-2001: Lecturer. H. John Heinz III School of Public Policy & Management, Carnegie Mellon

University, Pittsburgh, PA. Lecturer for graduate courses in (i) Health Economics, (ii)

Statistics, and (iii) Information Systems for Public Managers.

1994-1999: Research Assistant. (1) To Judy Lave for Mental Health Benefits project (1998-1999),

University of Pittsburgh, Pittsburgh, PA. (2) To Wilpen Gorr, for HSNET project (1997), Carnegie Mellon University, Pittsburgh PA. (3) To Jayant Kalagnanam for Tracking and Framework Analysis Project (1995-1996), Carnegie Mellon University, Pittsburgh PA. (4) To Wesley Cohen for Program on Innovation, Technology and Economic Growth (1994-

1995), Carnegie Mellon University, Pittsburgh, PA.

1993-1999: **Teaching Assistant**. H. John Heinz III School of Public Policy and Management, Carnegie

Mellon University (various courses including: microeconomics, mathematical economics, operations research, information systems, and statistics). Also lecturer for (i) Health Eco-

nomics, (ii) Statistics, and (iii) Information Systems for Public Managers.

Working Papers/Work in Progress

Under revision

• "Antibiotic consumption in the UK and the cost of shifting demand away from broad-spectrum drugs" (with Franco Mariuzzo and Weijie Yan). CCP Working Paper 19-3. R&R at *International Journal of Industrial Organization*.

- "Lockdown drinking: the sobering effect of alcohol minimum pricing" (with Ratula Chakraborty, Paul W. Dobson and Marcello Marciano). August 2021. R&R at *Economic Inquiry*.
- "Do the poor pay disproportionately more for increasing market concentration? A study of retail petroleum markets" (with Sean Ennis, Franco Mariuzzo, and Peter Ormosi), March 2022. R&R at *Journal of Industrial Economics*.

Under review

- "Proliferation and entry deterrence" (with Weijie Yan). CCP Working Paper 20-04. Under review.
- "Discrimination in healthcare: A field experiment with Pakistan's Transgender community" (with Husnain F. Ahmad and Sheheryar Banuri). August 2021. Under review.

In preperation

- "Merger review using online experiments" (Stefan Penczynski and Janithe Siriwardana). In preparation. (Slides)
- "Medicine procurement with dynamic reserve price mechanism" (tentative title) (with Sean Ennis, Carlos Vega and Tim Salmon). In preparation.
- "Retrospective merger evaluation: GSK-Pfizer consumer health in Philippines" (with Sean Ennis, Carlos Vega and Weijie Yan). In preparation.
- "Residential preferences for social interactions: slum formation in nineteenth and twentieth century Dublin" (with Silvi K. Berger and Franco Mariuzzo). In preparation.
- "Estimating demand for zero priced products and the value of personal data" (with Michael Kummer). In preparation. (Slides)

Retired

- "Does Managed care matter? Hospital utilization in the U.S. between 1985 and 1993" (with Jon Caulkins, Martin Gaynor and Doug Wholey). Paper retired.
- Optimum population: A new look A Hamiltonian approach towards a dynamic analysis (with George McCarthy). Paper retired.

Publications

- "Banning volume discounts to curb excessive consumption: A cautionary tale" (with Paul Dobson, Marcello Morciano, and Marc Suhrcke). *European Economic Review* 156 (104480). 2023.
- "Innovation and growth in the UK pharmaceuticals: the case of product and marketing introductions" (with Franco Mariuzzo and Ann Rita Bennato). *Small Business Economics* 57(1) 603-634. 2021.
- "Entry limiting agreements: First-mover advantage, authorized generics, and pay-for-delay deals" (with Franco Mariuzzo and Arnold Polanski). *Journal of Economics and Management Strategy*, 29(3) 516-542, Fall 2020.
- "Demand estimation and merger simulations for drugs: Logits v. AIDS" (with Franco Mariuzzo). *International Journal of Industrial Organization*, 61 (November), 653-685, 2018.

Farasat Bokhari – CV

• "Can drug price hikes via debranding be prevented?" (with Bruce Lyons). *Prescriber*, 28(4), 44-46, April, 2017.

- "Entry in the ADHD drugs market: Welfare impact of generics and me-toos" (with Gary Fournier). *Journal of Industrial Economics*, 61(2), 339-392, 2013.
- "What is the price of pay-to-delay deals?" *Journal of Competition Law and Economics*, 9(3), 739-753, 2013.
- "Selective admission into stroke unit and patient outcomes: a tale of four cities" (with I Wellwood, A Rudd, P Langhorne, M Dennis and C Wolfe). *Health Economics Review*, 4(1), 1-10, 2013.
- "School accountability laws and consumption of psychostimulants" (with Helen Schneider). *Journal of Health Economics* 30(2), 355-372, 2011.
- "Managed care and the adoption of technology: The case of cardiac catheterization" *International Journal of Industrial Organization* 27(2), 223-237, March, 2009.
- "Risk factors for discontinuing drug therapy among children with ADHD" (with Frank Heiland, Peter Levine and Tom Ray) *Health Services and Outcomes Research Methodology* 8(3), 134-158, September, 2008.
- "Open versus closed firms and the dynamics of industry evolution" (with Ashish Arora). *Journal of Industrial Economics* 55(3), 499-527, September, 2007.
- "Government health expenditures and health outcomes" (with Yunwei Gai and Pablo Gottret). *Health Economics* 16(3),257-273, March, 2007.
- "Attention-deficit/hyperactivity disorder in children: Excess costs before and after initial diagnosis and treatment" (with Tom Ray, Peter Levine, Lisa Croen, Teh-wei Hu and Laurel Habel) *Archives of Pediatrics & Adolescent Medicine* 160(10), 1063-1069, 2006.
- "An analysis of the significant variation in psychostimulant use across the U.S." (with Rick Mayes and Richard Scheffler). *Journal of Pharmacoepidemiology and Drug Safety* 14(4), 267-275, 2005.

Reports and Chapters

4

- "Assessing the impact of health care expenditures on mortality using cross-country data" (with Ryota Nakamura, James Lomas, Karl Claxton, Rodrigo Moreno-Serra, and Marc Suhrcke) in *Global Health Economics: Shaping Health Policy In Low- And Middle-income Countries* 2020. World Scientific Publishing Co. Ltd, pp.3-49.
- "Evaluating wholesale and retail mergers in pharmaceuticals" (with Franco Mariuzzo). *OECD's Global Forum on Competition*, DAF/COMP/GF(2014)4, February, 2014.
- "Improving health outcomes" (with Yunwei Gai and Pablo Gottret) in *Health Financing Revisited: A Practitioner's Guide* by Pablo Gottret and George Schieber. World Bank, Washington, D.C., 2006.

Opinions/Blogs

- "US-backed vaccine patent waiver: pros and cons explained" *The Conversation*, May 6, 2021.
- "Toilet paper in the time of Corona" UEA Blog, March 18, 2020.
- "Pfizer and Flynn: How are 'excessive' prices for generic drugs possible and should competition authorities do more about exploitative pricing?" *CCP Blog*, December 16, 2016.
- "Clinton's proposed ban on pay-for-delay deals would do little to lower drug prices" *STAT*, September 28, 2016.

• "The logic of selling cheaper 'generics' for drug companies such as Mylan." *The Conversation*, September 2, 2016. (Cross-posted as "Why have Mylan launched a generic EpiPen?" at CCP Blog)

- "Drug Prices post-Brexit an expensive pill to swallow?" The Conversation, June 8, 2016.
- "The Economics of Pay To Delay Deals" CCP Blog, February 16, 2016.
- "The Economics of a \$750 Pill" CCP Blog. September 23, 2015.

Grants and Contracts

- "Capacity Building to Foster Competition Project, Training in Competition Economics", Philippine Competition Commission (Lead: F. Bokhari, UEA), 2020. USD 30,000. Status: Concluded.
- "Comprehensive Review of Potentially Anti-Competitive Laws and Regulations", Philippine Competition Commission, RFP Project No. EC 04 2018A (Lead: S. Davies, UEA), 2018-19. USD 84,000 Status: Concluded.
- "Cornwall Energy UEA Knowledge Transfer Partnership", R202583 and R202597 (PI: C. Waddams, UEA), 2015-16. GBP 112,000. Status: Concluded.
- "Testing Accelerated Experience-Based Co-Design: Using A National Archive Of Patient Experience Narrative Interviews To Promote Rapid Patient-Centred Service Improvement", NIHR Service Delivery and Organisation Programme (SDO), HS&DR-10/1009/14 (PI: Louise Locock, Department of Primary Health Care, University of Oxford), Sep 2011-Mar 2013. GBP 305,376, Status: Concluded.
- "Telephone CBT for Depressed African-American Dementia Care-givers", National Institute of Mental Health (R34) R34MH078999, (PI: Robert Gluekauf, Florida State University), 02/15/2008 01/31/2011. USD 620,592. Status: Concluded.
- "An Economic & Policy Analysis of ADHD & Stimulant Drugs" National Institute of Mental Health (R01): 1 R01 MH067084-01A1 (Co-PI: F. Bokhari, PI: Richard Scheffler of U.C. Berkeley), 02/06/2004-01/31/2007. USD 900,752. Status: Concluded
- "Economic Analysis Of Demand For Psychostimulant Drugs", Florid State University's First Year Assistant Professor Award, (PI: F. Bokhari), Summer 2004. Status: Concluded

Services

(external)

- 2019: Tenure review for Lahore University of Management Sciences
- 2018: Referee for Program Grants for Applied Research, National Institute for Health Research
- 2017: Referee for European Research Council Advanced Grant
- 2010-2012: Training Workshops (mini-modules in health economics evaluation) for Biomedical Research Centre (BRC) at Guy's and St Thomas' NHS Foundation Trust and King's College London
- 2007,2009,2011: Member Scientific Committee: American Health Economics Association

Journal Referee: Economic Inquiry, Rand Journal of Economics, European Economic Review, Journal
of Economic Behavior and Organization, Journal of Industrial Economics, International Journal of
Industrial Organization, Research Policy, Journal of Health Economics, Health Economics, Value in
Health, Health Policy, Medical Care, Social Science and Medicine, Applied Health Economics and
Health Policy, Demographic Research, European Journal of Health Economics, Journal of Population
Economics, International Journal of the Economics of Business, Socio-Economic Planning Sciences.
(internal)

- Research Director, School of Economics, UEA, 2023-present.
- Training Director, Center for Competition Policy, UEA, 2022-present.
- Director of Engagement and Impact (deputy before), School of Economics, UEA, 2017-2023.
- Steering Committee, Center for Competition Policy, UEA, 2018-present.
- Working Papers Series, Editor, Center for Competition Policy, UEA, 2015-present.
- Blog Editor, School of Economics, University of East Anglia, 2016-2018.
- Undergraduate Economics Admissions Officer, School of Economics, UEA, 2012-2016.
- Faculty Appeal and Complaints Panels, UEA, 2010-2011.
- Board of Examiners, Postgraduate, School of Economics, University of East Anglia 2011-2012.
- Board of Examiners and Program Committee, Master of Public Health Programme, School of Medicine, Kings College London, 2010-2012.
- Faculty Search Committee, Economics Department, Florida State University, 2004-2005.
- Department Executive Committee, Economics Department, Florida State University 2004-2005.
- Ph.D. Qualifying Exam Committee (Microeconomics): August 2006, January 2007, August 2007, January 2008.
- Working Paper Series Coordinator for RePEc, Economics Department, Florida State University 2004-2010.

Teaching

Courses

- Advanced Econometric Topics (PhD students, UEA and IO summer schools including for consultants)
- Math Methods in Economics (PhD students, UEA and Florida State University (FSU))
- Microeconomics 1 (PhD students, FSU)
- Health Economics (PhD students, FSU)
- Industrial Organization and Competition Policy (MSc students, UEA)
- Introduction to Core Industrial Organization (PG Certificate Program, UEA)
- Industrial Organization and Competition Policy (PG level for Philippine Competition Commission)
- Presessional Introduction to Statistics (MSc students, UEA and Carnegie Mellon University (CMU))
- Health Economics and Policy (MA/MSc students at King's College London (KCL), FSU and CMU)
- Information Systems (MSc students at CMU)
- Introduction to Economics (Undergraduate students, UEA)
- Economics of Society, Media and Culture (Undergraduate students, UEA)
- Health Economics (Undergraduate students, FSU)
- Econometrics (Undergraduate students, UEA and Lahore University of Management Sciences)

PhD Examiner

- Zeina Alsharkas, Ph.D., Economics Department, University of Essex 2018 (External Examiner)
- Abdul Rehman, Ph.D., School of Economics, UEA 2015 (Internal Examiner)

PhD Supervision (former students)

- Vasudha Wattal, School of Economics, UEA 2022 (Primary Supervisor)
- Weijie Yan, Ph.D., School of Economics, UEA 2018 (Primary Supervisor)
- Yunwei Gai, Ph.D. Economics Department, FSU 2006 (Secondary Supervisor)
- Nitin Dua, Ph.D., Economics Department, FSU 2011 (Secondary Supervisor until 2010)

PhD Supervision (current students)

- Israel Gottschalk, School of Economics, UEA (2022 December expected) (Primary Supervisor)
- Broc Cox, School of Economics, UEA (2023 expected) (Primary Supervisor)
- Carlos Vega, School of Economics, UEA (2024 expected) (Primary Supervisor)
- Janithe Siriwardana, School of Economics, UEA (2024 expected) (Secondary Supervisor)

Member PhD Dissertation Committee

- Yuling Wang, Ph.D. Risk Management & Insurance, FSU 2008 (Member Dissertation Committee)
- Mark Keightley, Ph.D. Economics Department, FSU 2008 (Member Dissertation Committee)

Master and Undergraduate

• Over 40 dissertations supervised across multiple institutions

Invited Presentations

- Lancaster University, February 2023, Lancaster, UK (Department of Economics).
- University of Genova, July 2022, Genova, Italy (Department of Economics).
- Association of Competition Economics (ACE), November 2021, Annual Conference, Barcelona, Spain.
- Lahore University of Management Sciences, 2021 (Department of Economics).
- University of Arizona, 2020 (Program on Economics & Privacy).
- Helsinki Graduate School of Economics, 2019 (with Aalto University, and School of Business).
- Philippines Competition Authority, 2019.
- Competition Issues in Pharmaceuticals: The Challenges Ahead, 2017 (CCP Conference).
- Organisation for Economic Co-operation and Development, 2014 (Global Forum on Competition by Directorate for Financial and Enterprise Affairs Competition).
- Office of Fair Trading UK, 2013.
- Lahore University of Management Sciences, 2013 (Department of Economics).
- Competition Commission of Pakistan, 2012 (Competition Policy & Research Department).
- Brunel University, 2012 (Business School).
- University of Aberdeen, 2012 (Department of Economics).
- King's College London, 2012 (Department of Management).
- Network of Industrial Economists Winter Conference, London, UK, 2012.

- University of Bergen, 2011 (Department of Economics).
- Federal Trade Commission, 2009 (Bureau of Economics).
- University of Victoria, 2009 (Economics Department).
- Ball State University, 2008 (Economics Department).
- University of Oslo, 2002 (Economics Department and Health Economics Research Program).
- University of North Carolina Charlotte, 2001 (Business School).
- University of North Texas Health Science Center, 2001 (School of Public Health).
- American College of Radiology, 2001 (Research Department).
- U.S. Department of Health and Human Services, 2001 (SAMHSA).
- Rockurst University, 2001 (Business School).
- Union College, 2001 (Business School).

Conference Presentations • International Industrial Organization Conference, Boston, USA, 2022, • Bergen Center for Competition Law and Economics (BECCLE) Annual Conference, Bergen Norway, 2022 • Competition and Regulation Summer School and Conference (CRESSE) Crete, Greece, 2022 • European Association for Research in Industrial Economics (EARIE), on-line 2021 • SMi Conference on Parallel Trade, London, 2020 • Competition and Regulation Summer School and Conference (CRESSE) Crete, Greece, 2019 • European Association for Research in Industrial Economics (EARIE), Barcelona, Spain, 2019 • International Industrial Organization Conference, Boston, USA, 2019 • Competition and Regulation Summer School and Conference (CRESSE) Crete, Greece, 2018 • SMi Conference on Parallel Trade, London, 2018 • European Association for Research in Industrial Economics (EARIE), Athens, Greece, 2018 • International Health Economics Association (iHEA), Boston, USA, 2017 • European Association for Research in Industrial Economics (EARIE), Maastricht, Netherlands, 2017 • Competition and Regulation Summer School and Conference (CRESSE) Crete, Greece, 2017 • Bergen Competition Policy Conference (BECCLE), Bergen, Norway, 2017 • European Association for Research in Industrial Economics (EARIE), Lisbon, Portugal, 2016 • International Industrial Organization Conference (IIOC), Philadelphia, USA, 2016 • Competition and Regulation Summer School and Conference (CRESSE) Rhodes, Greece, 2016 • European Association for Research in Industrial Economics (EARIE), Munich, Germany, 2016 • European Association for Research in Industrial Economics (EARIE), Munich, Germany, 2015 • International Industrial Organization Conference (IIOC), Chicago, USA, 2014 • International Industrial Organization Conference, Boston, USA, 2013 • International Health Economics Association (iHEA), Toronto, Canada, 2011 • International Health Economics Association, Beijing, China, 2009 • International Industrial Organization Conference (IIOC), Boston, USA, 2009 • American Health Economics Association (ASHE), Durham, USA 2008 • Southern Economic Association (SEA), New Orleans, USA, 2007 • International Health Economics Association (iHEA), Copenhagen, Denmark, 2007 • Southern Economic Association (SEA), Charleston, USA, 2006 • AcademyHealth Annual Research Meeting, Boston, USA, 2005 • Southern Economic Association (SEA), Washington D.C., USA, 2005 • Second NIMH Pharmacoeconomics Workshop, Washington D.C., USA, 2004 • American Economic Association (AEA), San Diego, USA, 2004 • International Health Economics Association (iHEA), San Francisco, USA, 2003 • American Public Health Association, Philadelphia, USA, 2003 • AcademyHealth Conference, Washington D.C., USA, 2002 • International Health Economics and Management Conference, Athens, Greece, 2002 • American Public Health Association (APHA), Boston, USA, 2002