#### Ashish Kumar

Contact IIM-Ahmedabad. Contact:  $+91\ 8727060069$ Information E-mail: ashish.econ@gmail.com India

EDUCATION MA Economics, Ashoka University, 2020

GPA: 3.7/4 (magna cum laude)

• Dissertation Topic - Production Networks & Shock Diffusion: Does inter-sectoral network structure matter?

• Advisor : Prof. Bhaskar Dutta

BA Economics, Punjabi University, 2017

Percentage: 82%

Research Assistant, Indian Health Outcomes, Public Health & Economics Research Centre, June EXPERIENCE

2021-Present

Research Assistant, Misra Centre for Financial Markets and Economy, IIM Ahmedabad, April 2021-

May 2021

Research Assistant, Centre for Management of Health Services, IIM Ahmedabad, May 2020-March

2021

Research Intern, ICTS-TIFR, Bengaluru, May-July 2019

TECHNICAL SKILLS R, Python, Julia, MATLAB

**PUBLICATIONS** A. Kumar, A. S. Chakrabarti, A. Chakraborti, and T. Nandi, Distress propagation on production

networks: Coarse-graining and modularity of linkages, Physica A, (2021) 568. (Link)

Working Papers How Does Misinformation Spill-Over Spatially? New Evidence from COVID-19 Drug Treatment Endorsements(with Chirantan Chatterjee and Aditya Bansal) (under review

at Oxford Bulletin of Economics and Statistics)(SSRN Link)

Do political statements without a scientific basis on medicines cause global pharmaceutical demand spillovers during pandemics? We examine this question using novel sales data from 2018-2020 in the Indian domestic anti-malarial drug markets. Utilizing a difference-in-difference setup coupled with an event-study design framework, we exploit the endorsement by the POTUS as an exogenous shock. Additional analysis for mechanisms show that the effects are most prominent in top Indian

regions with urban populations, better internet penetration, and population density.

En masse product ban: Arms race between institutions and markets (with Chirantan Chatterjee and Anindya S Chakraborti) (preparing for journal submission)

We examine a particular episode, where, Government of India, in March 2016 banned the manufacture, sale and distribution of 344 Fixed-Dose-Combination (FDCs) drugs, thus striking a huge blow to gigantic 500 billion rupees pharmaceutical industry's arm involved in the production of FDC's, of which banned drugs contribute roughly half the value. Using difference-in-difference model coupled with event study design framework, we find a heterogeneous response by different product-markets as well as firm-markets. Our results holds after controlling for varied forms of regional heterogeneity, and are consistent using synthetic controls or other robustness checks.

### Granular origins of aggregate nominal fluctuations in a networked economy (with Anindya S Chakraborti)(work under progress)

We attempt to characterize the differential response of price to sectoral and aggregate shocks in terms of network structure of input-output linkages in a multisector sticky price DSGE setup. A recent paper by Carvalho et al. (2021) documents three main mechanisms that speed-up the sectoral price responses to idiosyncratic shocks compared to aggregate shocks. The paper discusses the presence of input-output linkages as one of the features responsible for slowing-down the responses to aggregate shocks. The input-output structure leads to pricing complementarities which coupled with staggered price setting prevents firms in a particular sector from optimally responding to aggregate shocks. However, the paper does not discusses the implications that the structure or attributes of the input-output linkages could have on price responses. We make network structure salient and then see how the price response of a sector varies based on its position in the network, where position reflects different centrality measures. We estimate the model using aggregate and sectoral price data coupled with the input-output tables of India.

# The California Effect in Global Biopharmaceutical Industry: Evidence from Large Molecule Biological Drugs (with Chirantan Chatterjee , Anindya S Chakraborti, and Dr. Raja Naraynan)(work under progress)

Exploiting the passage of Biologics Price Competition and Innovation (BPCI) Act in 2008 as an exogenous event to the state of Indian biologics market, we attempt to document the shift in its market structure in India. The BPCIA's intent was to foster competetion by creating an abbreviated pathway for the entry of biosimilars in the biologics market. That incentivized firms in India which is considered to be a hotbed of bio-pharmaceuticals industry. Our paper empirically documents that the incentive channel created by BPCIA led to market expansion, with new firms entering the market, and expanding product variety which ultimately brings down prices and reduce market concentration.

#### Conferences

ICTS-TIFR: Complex Systems in Economics, July 2019

#### Positions Held

Co-Founder, The Graduate Economic Computing Society, Ashoka University

President, The Economics Society — Punjabi University, Patiala

#### AWARDS AND ACCOMPLISHMENT

Featured in Dean's List and awarded 'Excellence in Academic Achievement', Ashoka University

#### Batch Topper

- MA Economics, Ashoka University, 2020
- B.A. Economics, Punjabi University, 2017

National Level Football Player: Represented Punjab State in Under-17 National Football Championship, All India Football Federation, 2012.

## PhD Courses (Audit)

Advanced Time Series Analysis-II, Instructor: Prof. Anindya Chakraborti, IIM-Ahmedabad, Summer  $2020\,$ 

Econometrics III: Structural Equation Modeling, Instructor: Prof. Tyler Ransom, University of Oklahoma, Fall 2020

Sequencing Legal DNA: NLP for Law and Political Economy, Instructor: Prof. Elliot Ash, ETH Zurich, Spring-2021