

Ashish Kumar

CONTACT INFORMATION

IIM-Ahmedabad (IIM-A),
India

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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? Link, Advisor : Prof. Bhaskar Dutta

BA Economics, Punjabi University, 2017

Percentage: 82% (First class with distinction)

EXPERIENCE

Research Assistant, Indian Health Outcomes, Public Health & Economics Research Centre, June 2021-*Present*

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

Research Assistant, Centre for Management of Health Services, IIM-A, May 2020-March 2021

Research Intern, ICTS-TIFR, Bengaluru, May-July 2019 [Link](#)

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*)First draft

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 discuss 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, we attempt to document the shift in the market structure of biologic drugs in India. The BPCIA's intent was to foster competition 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, thus leading to more product variety which ultimately brought down prices and reduced market concentration.

TIME-SERIES TERM PAPER Financial Market Volatility and Macroeconomic Fundamentals (Link)

In this paper, we intend to discover the dynamic relationship between financial market volatility and macroeconomic fundamentals. Our main goal would be to shed light on the evidence that macroeconomic conditions are linked to the uncertainty in the stock market as well as in the economic-policy domain. For that, we employ a structural VAR model with bayesian sign restrictions. More specifically, we consider a bi-variate structural VAR between distinct macroeconomic variables, stock market volatility and uncertainty measures, allowing us to model any potential feedback effects between these variables, and therefore enabling us to capture the relationship between the real economy, volatility observed in the stock market as well as uncertainty in the policy domain. We obtain and utilize the data on monthly production indices, realized and implied stock market volatility, and economic policy uncertainty index for United States and India to conduct our analysis.

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

PHD COURSES (AUDIT)

Advanced Time Series Analysis-II, Instructor: Prof. Anindya Chakraborti, IIM-A, Summer 2020
Econometrics III: Structural Equation Modeling, Instructor: Prof. Tyler Ransom, University of Oklahoma, Fall 2020. (*Offered virtually*)
Sequencing Legal DNA: NLP for Law and Political Economy, Instructor: Prof. Elliot Ash, ETH Zurich, Spring-2021 (*Offered virtually*)