ANINDYA S. CHAKRABARTI

Department of Economics
Boston University
270 Bay State Road
Boston MA 02215 USA
Cell: +1 (781) 697-1312
Email: anindya@bu.edu
Website: https://sites.google.com/site/homepageasc/home

EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2015 (expected)
Dissertation Title: Essays on macroeconomic networks, volatility and labor allocation.
Dissertation Committee: Alisdair McKay, Adam Zawadowski and Samuel Bazzi.

M.S., Quantitative Economics, Indian Statistical Institute, Kolkata, India, 2010

B.Sc. (*Honours*), Economics, Presidency College, Calcutta University, India, 2007

FIELD OF INTEREST

Macroeconomics

TEACHING EXPERIENCE

Teaching Assistant, Principles of Microeconomics, Department of Economics, Boston University, Fall 2011, Fall 2012, Fall 2013, Fall 2014
Teaching Assistant, Principles of Macroeconomics, Department of Economics, Boston University, Spring 2012, Spring 2013
Instructor, Principles of Macroeconomics, Department of Economics, Boston University, Summer 2013

FELLOWSHIPS AND AWARDS

Special Research Fellowship, Boston University, Spring 2014
Dean's Fellowship, Boston University, Fall 2010-present
Visitor, Institute of Mathematical Sciences, Chennai, India, summer 2012 and 13
Graduate Fellowship, Indian Statistical Institute, Kolkata, India, 2008-2010
National Merit Scholarship, Government of India, 2004

WORKING PAPERS

"Globalization of volatility," October, 2014 (Job market paper).
"Economic incentives and social frictions: Dynamics of cross-country migration," with A. Dutta, October, 2014.

WORK IN PROGRESS

"Wage dynamics in a multi-sector economy with directed technological change."

PUBLICATIONS/ SUBMITTED

"Self-organized coordination in collective response of non-interacting agents: Emergence of bimodality in box-office success," with S. Sinha, 2013.

"Bimodality in firm-size distribution: a kinetic exchange model approach," *European Physical Journal B*, 86 (2013) 255.

"Effects of the turnover rate on the size distribution of firms: An application of the kinetic exchange models," *Physica A*, 391 (2012) 6039-50.

"An almost linear stochastic map related to the particle system models of social sciences," *Physica A*, 390 (2011) 4370-78.

"Opinion formation in the kinetic exchange models: spontaneous symmetry breaking transition," with M. Lallouache, A. Chakraborti, B. K. Chakrabarti, *Physical Review E*, 82 (2010) 056112.

"Inequality reversal: effects of the savings propensity and correlated returns," with B. K. Chakrabarti, *Physica A*, 389 (2010) 3572-80.

"Statistical Theories of Income and Wealth Distribution," with B. K. Chakrabarti, *Economics*, 2010-4, (2010).

"Microeconomics of the ideal gas like market models," with B. K. Chakrabarti, *Physica A*, 388 (2009) 4151-58.

"The Kolkata Paise Restaurant problem and resource utilization," with A. Chatterjee, B. K. Chakrabarti, M. Mitra, *Physica A*, 388 (2009) 2420-26.

CONFERENCES AND PRESENTATIONS

School of Management, Boston University, 2014 (scheduled)
Institute of Mathematical Sciences, Chennai, India, July 2013

PROFESSIONAL SERVICE

Refereed for Physica A, Journal of Economic Interaction & Coordination.

LANGUAGES: English and Bengali (proficient), Hindi (limited verbal communication).

COMPUTER SKILLS: MATLAB, Latex, Microsoft Office, Stata, C.
OTHER INTERESTS: Biking, Trekking, Movies.
CITIZENSHIP/VISA: India/F1

REFERENCES

Professor Alisdair McKay
Department of Economics
Boston University
Phone: (617) 353-6324
Email: amckay@bu.edu

Professor Adam Zawadowski
School of Management
Boston University
Phone: (617) 358-6174
Email: zawa@bu.edu

Professor Samuel Bazzi
Department of Economics
Boston University
Phone: (617) 353-6150
Email:sbazzi@bu.edu

ANINDYA S. CHAKRABARTI

Globalization of volatility
(Job Market Paper)

European countries occupying more central positions in the intra-Europe trade network exhibit lower macroeconomic volatility. This empirical finding is puzzling because a more central country is also more open to exogenous shocks which increase volatility. To explain the negative relationship, I study a multi-country, multi-sector model subject to idiosyncratic productivity and liquidity shocks, and fully characterize the trade network generated in equilibrium. When the trade network shows skewness in terms of trade linkages between different countries, similar liquidity shocks generate different levels of repercussions across the network. First, the conventional effect of diversification holds true that countries with better diversified portfolio fluctuate less compared to its counterparts. Second, I show that a more central country holds more liquidity, and hence it is more robust to exogenous shocks. The combined effect dominates the opposite effect that a more central country is also more exposed to shocks which contributes positively to volatility. The model calibrated to the European Union generates and closely replicates the negative relationship between centrality of countries in the intra-Europe trade network and macroeconomic volatility of the corresponding countries. The theoretical model is then extended to capture the possibilities of sparseness and stochastic weights in the trade networks.

Economic incentives and social frictions: Dynamics of cross-country migration with A. Dutta

In this paper we devise a theory of cross-country migration in the form of labor mobility based on regional and sectoral productivity shocks in a multi-country, multi-sector setting. Country-specific sociological and institutional factors induce a friction on such labor reallocation process driven by economic incentives. We use country level data to show how country to country migration can be determined by industrial composition in the countries, shocks in factor productivity in the regionally concentrated sectors and spatial dispersion of these shocks. The model explains both the nominal and relative flow of workers across U.S. well, which is taken as the frictionless benchmark case. On the other hand, when applied to Europe the model explains the relative flow network well, but predicts a higher nominal flow than is seen in the data. This missing mass of migrants is explained by socio-cultural-political barriers. We use dyad regression to analyze the effects of institutional and cultural `distance' between countries to explain the frictions. Taken together, the economic mechanism along with the institutional factors explains the `European immobility puzzle'.

Wage dynamics in a multi-sector economy with directed technological change

From 1964 till today, the wage-ratio across service and industrial production sectors shows a V-shaped pattern in USA. Until 1990, the ratio of employment in the service sector relative to that in industry, monotonically increased and the influx of women in the service sector changed the labor composition considerably. This excess supply explains why wage in the service sector went down relative to industry. The question is what explains the subsequent recovery? Briefly, the theory of DTC predicts that an accumulation of labor in one type of industry will divert research funds to produce technologies usable in that sector, causing wage to increase (Acemoglu, 2002). I present evidence that starting from 1985, the research and development expenditure in the service sector relative to that in the industry increased substantially causing the upturn.