Department of Economics and Politics

PhD Course Work

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Course I: Research Methodology and Techniques

1. Research Concepts

Identification of a research problem, understanding a research issue, framing of research questions, testable hypothesis, different types of data – qualitative and quantitative, identification of study variables, qualitative responses, appropriate scaling, some examples.

2. Research Methods

Outline of alternative methodologies of empirical research in Social Sciences – experimental, descriptive, econometric, some examples

3. Research Tools and Design of a Primary Survey

Types of primary data collection, FGD, personal interview, deciding on data unit

Determination of a sample frame for primary survey

Sample size and sample selection

Questionnaire designing – open and close ended questions, coding, pre-testing of questionnaire, use of a pilot survey

Sample questionnaire – Living Standard Measurement Studies (LSMS)

4. Research With Secondary Data

Different sources of secondary data – International and data on Indian Economy

5. Regression Analysis with Cross Section Data

Multiple Regression Analysis – Estimation and Inference

Multiple Regression Analysis and Diagnostic Tests– Heteroscedasticity Problem, Autocorrelation Problem and Multicollinearity Problem

Multiple Regression Analysis – Functional Form, Specification and Data Issues

Multiple Regression Analysis with Qualitative Information: Binary (or Dummy) Variables

Limited Dependent Variable Models and Sample Selection Corrections

6. Regression Analysis with Time Series Data

Basic Regression Analysis with Time Series Data

Univariate time series modelling and forecasting - MA, AR and ARMA process, Building ARMA models: the Box–Jenkins approach, Forecasting using ARMA models

Multivariate models - Vector autoregressive models

Modelling long-run relationships - Stationarity and unit root testing, Cointegration, Equilibrium correction or error correction models

Modelling volatility - Autoregressive conditionally heteroscedastic (ARCH) models,

Autoregressive conditionally heteroscedastic (ARCH) models

7. Panel Data Methods

Fixed Effects Estimation, Random Effects Models, The Correlated Random Effects Approach

8. Carrying Out an Empirical Project

References:

1. Grootaert C and K F Cheung (1985) *Household Expenditure Surveys: Some Methodological Issues*, Living Standard Measurement Study (LSMS) Working Paper No.22, World Bank
2. Wahab M A (1980) *Income and Expenditure Surveys in Developing Countries: Sample Design and Execution*, Living Standard Measurement Study (LSMS) Working Paper No.9, World Bank
3. Questionnaires and Surveys: A Free Tutorial http://www.statpac.com/surveys/
4. The World Bank Data and Resaerch Section www.econ.worldbank.org
5. Wooldridge, J (2016):***Introductory Econometrics A Modern Approach***, (6th Edition) South Western Cengage Learning.
6. Cameron, A C and Trevedi, P K (2005): ***Micro Econometric Methods and Applications***, Cambridge University Press.
7. Brooks Chris (2014): Introductory Econometrics for Finance (3rd Edition), Cambridge University Press, Cambridge.
8. Green, W (2004): ***Econometric Analysis***, Pearson Education, Delhi, 5th Edition.
9. Bhaumik S K (2015): ***Principles of Econometrics: A Modern Approach using E-views,*** Oxford University Press, New Delhi

Course II: Two Optional Papers to be chosen from the list

Optional Paper A: Advanced Micro Economics

i)   Industrial organization, Regulation and Labour Economics
ii)   Game Theory and Information
iii)   International Economics: The New Trade Theories, Trade and Industrial Organization, Trade and Public Policy

References:

i) Tirole: Industrial Organization
ii) Papers from Journal
iii) Fudenberg and Tirole: Game Theory
iv) Laffont and Martimort: Economics of Incentives
v) Helpman and Krugman: Market Structure and Foreign Trade

Optional Paper B: Economics of Corruption

Brief

Corruption is an economic, political, and human rights problem. Almost every country on the planet has some form of corruption. Corruption can undermine economic growth and political stability; lead to efficiency losses; and impede access to resources such as credit or public health; and ultimately reduce governance credibility and effectiveness. Corruption distorts trade and investment flows and it can facilitate illegal activities such as trafficking in women, drugs, or money laundering. In this course, we propose to examine corruption from real world as well as scholarly perspectives. We will use case studies, debates, and items from the news to examine how corruption can affect effective governance at the national and international levels and its trade spillovers. We will also examine how new technologies and strategies (from cell phones to the Extractive Industry Transparency Initiative) can reduce corruption and improve governance.

Course Objective

Upon completing the course, students will:

• Understand the roots of corruption and its variants;

• Understand the debate among scholarly disciplines on corruption;

• Evaluate how corruption affects and distorts economic growth;

• Be able to assess global and national strategies to reduce corruption; and

• Evaluate how technology can facilitate and undermine accountability.

Reference:

- Biswas A.K. & S. Sengupta, 2015, Corrupt Importers, Domestic Producers & Welfare: Role of Trade Policy. Economics & Politics 27/3.
- Biswas, A.K. &SugataMarjit, Mis-invoicing and Trade Policy, Journal of Policy Reforms, Vol. 8, No. 3, 2005.
- Biswas, A.K. & M. Thum, Corruption, Environmental Regulation and Market Entry (), Environment and Development Economics, Vol. 22/1, February, 2017.

- Biswas, A.K., Farzanegan, M.R., and Thum, M. 2012, Pollution, Shadow Economy and Corruption: theory and evidence, Ecological Economics, 75, 114-125.
- Biswas, A.K., Import Tariff Led Export Under-invoicing: A Paradox, Journal of International Trade and Economic Development, Vol. 21/3, 2012.
- Marjit, S. & Shi, H. (1998), On Controlling Crime with Corrupt Officials, Journal of Economic Behaviour & Organization, 34.
- Marjit, S., Ghosh, S. & Biswas, A. K. (2007), Informality, corruption and trade reform, European Journal of Political Economy, 23.
- Mukherjee, D. &Png, I.P.L., (1995), Corruptible Law Enforcers: How Should They Be Compensated?, Economic Journal, 105, 145-159.
- Rose-Ackerman, S. (1975), The Economics of Corruption, Journal of Public Economics, 4, 187 – 203.
- Shleifer, A., &Vishny, R. (1993), Corruption, Quarterly Journal of Economics, 108.

Optional Paper C: Development Economics

Course Outline

1. Critical analysis of the paradigm of 'Development' based on accumulation and growth introduced during the first half of the 20th Century
2. Critical discussion on the present day ideas of 'inclusive growth' and 'development management' – Their relations with capital accumulation
3. Macro model involving formal sector, agriculture and informal sector in the context of a developing economy like that of India – critically analyzing the paradigm of 'inclusive growth'.
4. Macro model involving formal sector, agriculture and the government playing a developmental role (e.g., MGNREGP) in the context of a developing economy like that of India – critically analyzing the paradigm of 'development management'.

References:

1. Sanyal K. 2007. Rethinking Capitalist Development: Primitive Accumulation, Governmentality and Post Colonial Capitalism, New Delhi: Routledge.
2. Chakraborty, Saumya. 2016. Inclusive Growth and Social Change: Formal Informal Agrarian Relations in India, OUP
3. ChakrabortyAnjan, AnupDhar and ByasdebDasgupta 2016. The Indian Economy in Transition, Cambridge University Press
4. Chakraborty, Saumya. 2013. Interrogating inclusive growth: duality, complementarity, conflict, Cambridge Journal of Economics, doi:10.1093/cje/bet016
5. Chakraborty, Saumya. 2011. A macroeconomic structure of employment: peripheral – MS conflict in a Kaleckian framework, Review of Radical Political Economics, 43(2):172-197.

Optional Paper D: International Trade Theory

I. Introducing Competitive Trade Theory and New Trade Theory
(This is primarily based on leading journal articles)

II. Some Recent Developments in Trade Theory
(This is primarily based on leading journal articles)

Readings:

- ✓ R. Caves, J. Frenkel and R. Jones, *World Trade and Payments*, 4th edition,
- ✓ R. Jones, *International Trade: Essays in Theory*, North Holland,1979.
- ✓ P. Krugman, *Rethinking International Trade*, 1994, MIT press.
- ✓ Helpman&Krugman (1987): *Market Structure and Foreign Trade*, MIT Press
- ✓ H. Kierzkowski (ed.): *Monopolistic Competition and International Trade*, 1984, OUP
- ✓ R. Findlay: *International Trade and Development Theory*, Columbia University Press, 1973.
- ✓ S. Marjit: *International Trade and Economic Development- Theory and Policy,* OUP, 2008.
- ✓ T. Kikuchi (2013),Time Zones, Communications Networks, and International Trade, *Taylor and Francis*.
- ✓ Kikuchi, T., S. Marjit and B. Mandal, (2013), "Trade with Time Zone Differences: Factor
- ✓ Market Implications," *Review of Development Economics*, 17(4), 699-711.
- ✓ Mandal, B., (2014), "Distance, production, trade and growth: A note," *Economics Discussion Papers 2014-14*, Kiel Institute for the World Economy.
- ✓ Marjit, S., (2007), "Trade Theory and Role of Time zones", *International review of Economics and Finance*", 16, 153-160.

- ✓ **Journal articles to be supplied during classes.**

Optional Paper E: Advanced Topics in Growth and Development Economics I

Unit 1 The long run Heckscher-Ohlin-Samuelson model.

- Two sector general equilibrium model, the Rybczinski theorem, endowment and the pattern of trade: the Heckscher-Ohlin theorem

- Commodity prices and factor prices, factor price equalization and the Stolper-Samuelson theorem.

- Inter-sectoral factor mobility and the relationship between the short-run and long run transformation schedule

Unit 2 Review of traditional Growth Models

Unit 3 The Solow Model as a bench mark and its extensions

Unit 4 The Representative Agent Neoclassical Macro Model or the Ramsey-Cass-

Koopmans (Ramsey-Solow Model)

Unit 5 New Growth Theory

(Arrow Model, Barro Model, Lucas Model, Romer Model)

References:

- Jagdish N. Bhagwati, T. N. Srinivasan and ArvindPanagariya, Lectures on InternationalTrade, MIT Press, 1998
- Charles I Jones, Introduction to Economic Growth (2nd edition), W. W. Norton & Co.

(Indian edition: Viva Books Private Ltd., 2006)

- D. Romer, Advanced Macroeconomics (3rd ed), McGraw-Hill, 2006. Ch 3

- R J Barrow and Xavier, Sala-i-Martin, Economic Growth, McGraw-Hill, 1995.

- Robert Barro, Macroeconomics, MIT Press, 1997

Optional Paper F: Economic Development and Environmental Economics

<u>Policy Instruments for Environmental and Natural Resource Protection</u>

1. **The Need for Environmental and Natural Resource Policy**
A. Public Economics and Information
B. Adapting Models to Ecosystem : Ecology, Time and Space
C. The Evolution of Rights
2. **Policy Instruments for Protection**
A. Direct Regulation of the Environment
B. Experimental Evaluations of Policy Instruments
3. **Selection of Policy Instruments**
A. Efficiency of Policy Instruments
B. Role of Uncertainty and Information Asymmetry
C. Equilibrium Effects and Market Conditions
D. Politics and Psychology of Policy Instruments
E. Design of Policy Instruments
4. **Imperfect Information and Optimal pollution control**
A. Mechanism Design for the Environment
B. The Theory of Incentives: The Principle Agent Model
5. **Policy Instruments for Industrial Pollution**
A. Case study in developed countries
B. Case studies in Less Developed Countries

Reference

1. Sterner and Correa (2012):Policy Instruments for Environment and Natural Resource Management, Resources for the future
2. Jennifer Rietbergen-McCracken, Hussein Abaza (2014): Economic Instruments for Environmental Management: A Worldwide Compendium of Case Studies: Routledge.
3. Rohan D' Souza ed. (2012):Environment, Technology and Development: Critical and Subversive Essays edited: Orient Blackswan.

4. Karl Goran Maler and Jeffrey R. Vincent (2003): Handbook of Environmental Economics (Volume 1),: Environmental Degradation and Institutional Responses; Elsevier
5. World Development Report (1992): Development and the Environment; OUP
6. Baumol and Oates (1988): The Theory of Environmental Policy (2/e);OUP
7. Cornes and Sandler (1986): The Theory of Externalities, public goods and Club goods; OUP
8. Titenberg (1990): 'Economic Instruments for Environmental Regulation' Oxford Review of Economic Policy; March

Please note that relevant papers from various journals will be referred in class.

Optional Paper G: Indian Economic Problem

Course Outline

i)   Critical assessment of strategies and policies for growth and development in India
ii)   Development experience in India: a critical review

Ref:

i)   A Bhaduri and D Nayyar: Intelligent persons' guide to liberalization
ii)   Indian Council of Agricultural Research, New Delhi: Hand Book of Agriculture
iii)   Hoda and Gulati: WTO negotiations on agriculture and developing countries
iv)   Ashok Rudra: Myths and realities
v)   Harriss-white: A political economy of agriculture markets in South India
vi)   Mccalla and Nash: Reforming agricultural trade in developing countries
vii)   Anderson and Martin: Distortions to agricultural incentives in Asia
viii)   Gulati and Narayanan: The subsidy syndrome in Indian agriculture
ix)   Anderson and Martin: Distortions to agricultural incentives in Asia
x)   Asian Development Bank: Macro economic development and government finances
xi)   T J Byres: Current debates on Indian economy
xii)   Basu: India's emerging economy

Course III: Review of Literature

Course IV: Research Publication Ethics (RPE) – This is a common course offered by the University as per the UGC Guidelines.