CURRICULUM VITAE

Name: **SOMNATH CHATTOPADHYAY**

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Present Position: Economist, Monetary Research Project, ICRA Ltd. (Working with Professor Mihir Rakshit for the journal *Money & Finance*)

Past Positions:

- Visiting Scientist at Indian Statistical Institute, Kolkata from 01.11.2011 to 31.03.2012
- Visiting Scholar at Indian Statistical Institute, Kolkata from 1.02.2011 to 31.07.2011.
- Senior Research Fellow at Indian Statistical Institute, Kolkata from 13.07.2007 to 31.01.2011.
- Junior Research Fellow at Indian Statistical Institute, Kolkata from 13.07.2005 to 12.07.2007.

Academic Qualification:

- Awarded Ph. D in Quantitative Economics from the Indian Statistical Institute, Kolkata on February 4, 2011.
- Passed M. Sc in Economics from the University of Calcutta in 2003 with Statistics and Econometrics as the Special Paper and Operations Research as the Optional Paper.

- Passed B. Sc in Economics from the University of Calcutta in 2001 with Statistics and Mathematics as the pass subjects.

Research Interest: Applied Econometrics, Analysis of Poverty, Small Area Estimation Techniques, Spatial Econometrics, Macroeconometrics.

Title of Thesis: "Analysis of Poverty in Rural West Bengal: A Spatial Approach" done under the supervision of Prof. Amita Majumder.

Publications:

1. **"Estimating Spatial Consumer Price Indices through Engel Curve Analysis" published in Review of Income and Wealth (Series 57, Number 1, Pages 138-155, March 2011) (Wiley-Blackwell)** (with Prof. Dipankor Coondoo and Prof. Amita Majumder)

Abstract: In this paper we propose a method of estimating spatial multilateral price index numbers from cross-section consumer expenditure data on different items using Engel curve analysis. The novelty of the procedure is that it overcomes the problem of data inadequacy, a problem that is shared by most of the developing countries. The procedure does not require item-specific price/unit value data and price index numbers can be calculated from consumer expenditure data grouped by per capita income/total consumer expenditure class in a situation where unit level data are not available. To illustrate the method, we use published state-specific data of the 50th round (1993–94) and 55th round (1999–2000) consumer expenditure surveys of India's National Sample Survey Organization (NSSO) and calculate the spatial consumer price index numbers for 15 major states of India, with All-India taken as base, separately for the rural and the urban sector for each round.

2. "**District-level Poverty Estimation: A proposed Method" published in Journal of Applied Statistics (Volume 38, Issue 10, Pages 2327-2343, 2011) (Taylor & Francis)** (with Prof. Dipankor Coondoo and Prof. Amita Majumder)

Abstract: This paper develops a method of estimating micro-level poverty in cases where data are scarce. The method is applied to estimate district-level poverty using the household level Indian national sample survey data for two states, viz., West Bengal and Madhya Pradesh. The method involves estimation of state-level poverty indices from the data formed by pooling data of all the districts (each time excluding one district) and multiplying this poverty vector with a known weight matrix to obtain the unknown district-level poverty vector. The proposed method is expected to yield reliable estimates at the district level, because the district-level estimate is now based on a much larger sample size obtained by pooling data of several districts. This method can be an alternative to the "small area estimation technique" for estimating poverty at sub-state levels in developing countries.

3. **"District level Poverty Estimation: A Spatial Approach" published in Economics Bulletin, 30 (4), 2962-2977, 2010. (USA)**

Abstract: The paper uses the procedure for estimating regional consumer price index numbers based on the estimation of item specific region wise Engel curves. Given the problem of unavailability of official district level poverty lines, the same are estimated by multiplying the official state level poverty line by the district level price indices estimated taking state as the base region. The poverty measures adjusted for the district level poverty lines, give a clearer picture for the spatial variations in levels of living across the districts of West Bengal, an eastern state of India.

4. **"Inter-regional Poverty Comparisons: Case of West Bengal" Journal of Quantitative Economics, 9 (2), 104-122, 2011.**

Abstract: This paper aims to explore into the causes of the differential levels of economic well being in the two parts of West Bengal, an eastern state of India in terms of incidences of poverty and various socio economic explanatory variables. Using a regression based technique, the incidences of poverty are found separately for these two parts, i.e., North Bengal and South Bengal. The disparity in poverty estimates (in particular, the Head Count Ratio (HCR) between rural North and South Bengal is studied. The difference between the poverty estimates is then decomposed into a *characteristics effect*, showing the effect of the regional characteristics and a *coefficients effect*, showing the effects of the differential impact of the characteristics over the regions using the familiar Oaxaca decomposition method and the results are interpreted in terms of policy prescriptions.

5. **"Earnings Efficiency and Poverty Dominance Analysis: A Spatial Approach" published in Economics Bulletin, 31 (3), 2298-2318, 2011. (USA)**

Abstract: The paper estimates an earnings frontier by the method of Corrected Ordinary Least Squares (COLS) and categorizes households as efficient or inefficient based on some benchmark efficiency score and the estimated frontier. The spatial distribution of the poor and non poor households is then explored by construction of a poverty segregation curve across efficiency zones. Robust poverty comparisons across the efficient and inefficient groups reveal that poverty is in fact higher for the efficient group compared to the inefficient one. The paper thus indirectly supports the "poor but efficient hypothesis".

6. **"Analysis of Poverty and Efficiency: An Earnings Frontier Approach" Forthcoming in the Bulletin of Economic Research. (Wiley-Blackwell)**

Abstract: The paper introduces the concept of an earnings frontier in explaining monthly consumption expenditure (a proxy for income) in terms of human capital and endowments of a household. Individuals who translate their potential earnings into actual earnings enjoy a fully efficient position. In contrast, individuals who earn less than their potential earnings suffer from

some kind of earnings inefficiency. The paper estimates an earnings frontier using the method of Corrected Ordinary Least Squares (COLS) and classifies households in terms of efficiency scores. Splitting the sample into an efficient and an inefficient part based on the estimated frontier and a bench mark efficiency score, the status of poverty in the two parts (groups) is studied. The poverty gap between the groups is then decomposed into a characteristics effect and a coefficients effect using the familiar Oaxaca decomposition methodology. The paper also tries to establish a link between the notion of efficiency and the coefficients effect in the Oaxaca decomposition methodology. The results obtained are interpreted in light of the poor but efficient hypothesis.

7. **"Decomposition of Inter-regional Poverty Gap in India : A Spatial Approach" forthcoming in Empirical Economics (Springer)** (With Prof. Amita Majumder and Mr. Hasanur Jaman)

Abstract: This paper examines the impact of various socio economic factors on consumption for rural West Bengal, an eastern state of India, using a regression based technique reformulated in a spatial framework. The difference of incidences of poverty (Head Count Ratios) in two parts (North and South) of rural West Bengal is then decomposed into a *characteristics effect*, showing the effect of the regional characteristics and a *coefficients effect*, showing the effects of the differential impact of the characteristics over the regions using the familiar Oaxaca decomposition method and the results are interpreted in terms of policy prescriptions.

Working Paper

8. **"Lognormal Income Distribution and Income Affluence Indices"**

Abstract: The paper derives the formulae for the FGT type of income richness indices from a lognormal distribution of income and characterizes the index in terms of mean of the income distribution, associated Lorenz curve and the affluence line. Such a characterization will be meaningful to conduct a Shapley type decomposition analysis of inter regional differences in the level of affluences. Using monthly per-capita household consumption data as a proxy for income data, the paper derives the estimates of income richness indices for the districts of urban West Bengal, an eastern state of India.

- Four other papers are lying in different stages of completion.
- Presently working in the field of Macroeconometrics.

Editorial Work:

- **Refereed for *Journal of Applied Statistic*s (Taylor & Francis) & *Economics Bulletin*.**

Teaching Interest: Econometrics, Statistics, Mathematical Economics, and Microeconomics.

Software Skill: STATA, MATLAB, SAS, SPSS.

References:

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