

### **1. Political Regime Change: State Performance vis-a-vis Conflict**

Debojyoti Mazumder (Indian Statistical Institute, Kolkata)

*Abstract* - Optimum provisioning of public good is one of the major functions of a welfare state. Historically, the procedure in which political power is transferred always plays an important and determinate role in this allocation problem. The present model, analyses, how state would provide a public good, when the change of power depends upon the performance of the state. With a credible threat of power change, if the valuation of the public good is low, along with a low fiscal capacity, then it is less probable the public good would be provided. Furthermore, such an allocation is compared with a situation, when there exists a threat of armed coercion. Interestingly, threat of an armed conflict does not change the optimum allocation of the public good (as compared to the previous situation) in the equilibrium.

### **2. Decentralisation, Economic Inequality and Insurgency.**

Bharti Nandwani (Shiv Nadar University)

*Abstract* - The Indian government introduced Panchayats Extension to the Scheduled Areas (PESA) act in 1996 in tribal districts in nine states of India with the avowed purpose of empowering the local tribes. Out of the nine states which got PESA, six states are affected by Maoist insurgency and so, PESA was expected to bring down insurgency. However, I show in this paper that PESA in fact led to increased insurgency. I use a difference in difference methodology to estimate the causal impact of PESA on the level of insurgency. I provide evidence that the channel through which PESA increased insurgency is increase in consumption expenditure inequality within the tribal population. Using quartile regressions, I also show that the observed increase in inequality is significant for the middle expenditure groups which is the result of capture of advantages associated with PESA.

### **3. The Natural Resource Curse Revisited: Theory and Evidence from India.**

Manasa Patnam (CREST (ENSAE))

*Abstract* - In 2000, three of the largest states of India, with some of the largest endowments of natural resources in the country, were split to create three new states. We exploit the consequent dramatic change in the distribution of resources to examine the interplay between political change and the concentration of resources. We construct a theoretical framework to understand the potential outcomes in this setting and examine how secessions affect economic outcomes in the newly formed states. This framework is designed to account for two effects: the first, which is independent of the endowment of natural resources derives from the smaller size of each state post break up which makes administration easier; while the second derives from the increased concentration of natural resources in the breakaway states relative to the rump. We employ a sharp regression discontinuity design to estimate the causal effect of secession and concentrated resources on growth and inequality outcomes at the sub-regional level. We find that while the effect of secession is generally favourable, constituencies rich in resources see a relative worsening of outcomes in both activity and inequality. We attribute this local resource curse to political economy effects.

**4. Endogenous Information Collection and Equilibrium Rate of Interest: The study of a Limited Liability Credit Market**

Ratul Das Chaudhury (University of Calcutta)

*Abstract* - We analyze a limited liability credit market where the borrowers need to borrow to implement their chosen projects with uncertain outcome. We allow borrowers to invest in resolution of the uncertainty in the project outcome before implementing the project. Our paper provides a complete characterization of the borrowers' decision on investment in information for uncertainty resolution and project implementation. We show that the borrowers have more incentive to invest in information at higher rates of interest. We also show that even a socially motivated lender may decide to charge a relatively high rate of interest and make positive profit under some parameter values.

**5. Are less informed people more honest? A Theoretical Investigation with Informal Mutual Insurance.**

Sukanta Bhattacharya (University of Calcutta)

*Abstract* - The paper analyses the effect of improvement in the quality of information on the arrangement of informal mutual insurance. We show that equilibrium amount of insurance mostly tend to decrease as the quality of signal improves for any individual. We also show that improvement in signal quality of an individual makes her better off at the cost of her partner. With community enforcement of insurance arrangement and random matching among community members, we show that less informed individuals are more likely to behave honestly than the more informed community members.

**6. Adverse Selection and Liquidity in Asset Markets: To Pool or not to Pool.**

Ayushi Bajaj (University of California, Irvine)

*Abstract* - This paper examines how adverse selection affects decentralized asset markets with search and bargaining, when imperfectly recognizable assets are traded for their liquidity role. In such models, while it is typical to focus on either pooling or separating equilibria, I use the notion of undefeated equilibrium, to first determine conditions on fundamentals under which, the equilibrium outcome of the bargaining game is either pooling ("information insensitive") or separating ("information sensitive"). The outcome transitions from the former to the latter as the quality mix of assets worsens. In the pooling equilibrium, when quality of assets is not revealed, the high-dividend-asset gets a high liquidity but in exchange for a lower pooled price. This results in lemons benefiting from informational asymmetry. In separating equilibrium, when quality of assets is revealed, the high-dividend-asset takes a costly "haircut" to signal quality thereby reducing its liquidity. Second, I endogenize the value of assets, and show that the price of all assets falls as the equilibrium outcome goes from pooling to separating. Besides, inter-temporal strategic complementarity increases pooling opportunities leading to multiple equilibria.

## **7. Impact of MGNREGA on Cropping Pattern and Labour Use: An Analysis Using a Primary Survey from Rajasthan and Uttar Pradesh**

Deepak Varshney (Delhi School of Economics)

*Abstract* - The implementation Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in India in 2006, raises concerns about the adverse impact on agriculture, by causing a shortage of casual labour in the agriculture sector, and an unfavourable shift in cropping patterns. At the same time, MGNREGA is also associated with investments in rural infrastructure. The scheme focuses specially on water-related structures through asset creation. The main objective of this study is to examine the impact of MGNREGA on cropping patterns. It explores the nature of substitution i.e. whether farmers are shifting towards labour-saving crops or shifting towards water-intensive crops. The second objective of the paper is to evaluate the impact of MGNREGA on labour use in the agriculture sector, disaggregated by gender. To study impact estimates, the paper distinguishes between three categories of rural households; large-farmer, middle-farmer and labourer-household. The database for the analysis comes from a primary survey of 667 households in Dholpur and Karauli districts in Rajasthan, and Barabanki and Sonbhadra districts in Uttar Pradesh. The empirical strategy exploits the non-uniform implementation of MGNREGA. It compares high-treatment villages to low-treatment villages using difference-in-difference framework, to identify the casual effect.

## **8. The Impact of Migration in Rural Bihar: 1999 to 2011.**

Amrita Datta (Erasmus University)

*Abstract* - This paper examines the effects of migration using panel data for a sample of households in 12 representative villages in Bihar. It first outlines broad changes in income sources between 1999 and 2011, showing a clear movement away from agriculture towards non-agriculture. We find that rural household incomes have increased, livelihoods have diversified, and at the same time, reliance on remittance income from migration has increased. The paper then employs the technique of difference-in-differences estimation to examine, if, overtime, welfare outcomes of households which experience migration are different from those that don't. The advantage of using panel data is that it enables us to control for unobserved time-invariant heterogeneity, something that is not possible with cross-section data that is used in most studies. We use a difference-in-differences model to estimate the effect of migration on welfare outcomes for four household typologies, based on their migration status in 1999 and 2011. Controlling for household and village variables, we find that new migrant households experienced large and significant income gains, of 38 per cent, vis-à-vis households that did not migrate. Conversely, households that slipped into non-migration experienced relative welfare losses; it is estimated that their incomes declined by 28 per cent, compared to households that continued to migrate. These results lend support to the theories of the new economics of labour migration; that, migration is one of the many livelihood strategies used by rural households, and is associated with increased welfare outcomes in source households in rural areas. The paper engages with, and draws from two, often not interconnected strands of literature – first, in the areas of migration, remittances and the new economics of labour migration; and second, literature that specifically deals with methodologies used in village restudies, longitudinal studies and panel data.

## **9. Intra-household Allocation of Food to Young Children.**

Nitya Mittal (Delhi School of Economics)

*Abstract* - This study examines the factors that affect parents' allocation decisions with respect to food provided to their young children, and whether these factors differ depending on whether the household has adequate (food) resources. It is motivated by the observation that undernourished children may be found even in households with adequate aggregate (household-level) food. The estimation strategy relies on switching regression models, which account for the fact that household food availability is itself endogenous. Using 24-hour dietary recall data collected for 320 children in four villages in rural Bihar in 2013, our results suggest that the intra-household allocation mechanisms do in fact differ by the adequacy status of the household. While adoption of good child care practices, aided by presence of an elderly alternative caregiver, lead to higher intake among children in food inadequate households, it is the nutritional knowledge of the primary caregiver that is the most important driver of calorie allocation among food sufficient households. An interesting but not unexpected result is with respect to health endowment of the child: households with inadequate food intake allocate more food to children who have a higher likelihood of earning more in the future. The allocation mechanism is quite similar for dietary quality (measured as share of non-cereal calories in total calories) between calorie adequate and inadequate households. Higher income leading to better diet is not unexpected and holds true for both types of households. The only difference is with respect to role of health endowment and child care practices, which play an important role in calorie insufficient households.

## **10. Macro Stress Testing and Resilience Assessment of Indian Banking.**

Hema Kapur (University of Delhi)

*Abstract* - This study develops and estimates an empirical macro-financial model to conduct macro stress testing to assess resilience of the Indian banking sector in compliance with BASEL norms. The results indicate a cointegrating relationship between a measure of probability of default and key macroeconomic variables including GDP growth rate, interest rate, money growth rate and exchange rate. The results also show the presence of significant feedback effects and strong pro-cyclical behaviour of credit quality. Coefficients from the co-integrating vector, normalized on the probability of default (a measure of credit quality proxied by the NPA ratio), suggest that the credit default is significantly and negatively influenced by the economy's growth rate, money growth rate and nominal exchange rate and positively by the interest rate. The Granger-causality test shows that the economy's growth rate is a significant predictor of credit quality. Generalized impulse response functions reveal that shocks to all variables affect the NPA ratio. The normalized generalized variance decompositions suggest that the important determinants of NPA ratio, in decreasing order of importance, are as follows: GDP growth rate, money growth rate, exchange rate and interest rate. The stress testing impact on banking sector credit quality and capital adequacy is also examined on the basis of scenario analysis. In the baseline scenario, the Indian banking sector is found to be sufficiently over and above the capital adequacy threshold according to both BASEL II as well as BASEL III norms for both

level and quality. In the face of adverse policy shocks, external price shock and a global shock, the Indian banking sector remains largely sound in terms of total regulatory capital adequacy ratio as per current BASEL II and even BASEL III requirement. However, it is somewhat constrained in meeting the more stringent BASEL III norms according to Indian standards for tier 1 capital.

### **11. Determinants of Bank Profits and its Persistence in Indian Banks: A Study in a Dynamic Panel Data Framework.**

Sakshi Sharma (Faculty of Management Studies, University of Delhi)

*Abstract* - The paper examines the impact of bank-specific, industry-specific and macroeconomic factors affecting the profitability of Indian Banks in a dynamic model framework. The persistence of bank profits and endogeneity of the factors had been accounted for using Generalised Method of Moments (GMM) as suggested in Arellano and Bond, 1991. The panel data for the study have been obtained from 42 Indian Scheduled Commercial Banks for the period from 2000 to 2013. The lag of bank profit variable ROA has been found to be significantly indicating a moderate degree of persistence of profits in Indian Banking Industry. The study finds that the product markets of Indian Banks are moderately competitive, and less opaque due to asymmetry in information. The adjustment towards equilibrium is partial and not instantaneous, implying that the elimination of abnormal profits through competition is by no means instant, and banks can continue to retain a significant percentage profits from one year to another. The Indian banking sector is not far away from becoming a perfectly competitive industry. Bank-specific variables; capital to assets ratio, operating efficiency and diversification have been found to be significantly and positively affecting the bank profits. Credit risk, measured by provisions for bad debts, negatively impacts the bank profitability. The study also tests the Structure Conduct Hypothesis (SCP) by using Herfindahl – Hirschman Index (HHI) and finds evidence in its support. Bank profits respond positively to GDP growth, indicating that bank profits are pro-cyclical to the growth of economy whereas the increase in inflation rate affects bank profits negatively. It is observed that the crisis period did not make any significant impact on the profitability of banks. The study concludes that there is a moderate degree of persistence of bank profits, and most of the determinants of profits have a positive and significant impact on profitability of banks, which implies that Indian Banks in the last decade have been moving towards efficiency and dynamism.

### **12. Do Farmers Value Rice Varieties Tolerant to Droughts and Floods? Evidence from a Discrete Choice Experiment in Odisha, India.**

Anchal Arora (Jawaharlal Nehru University)

*Abstract* - Abiotic stresses such as droughts and floods significantly constrain rice production in India. New stress-tolerant technologies have the potential to reduce yield variability and help insulate farmers from the risks posed by these hazards. This study aims at understanding seed attributes that are important for farmers, and explores socio-

economic factors behind varietal selection. Using discrete choice experiments conducted in rural Odisha, we estimate farmers' valuation for drought-tolerant (DT) and submergence-tolerant (SubT) traits embodied in paddy cultivars. We find farmers value both yield increasing traits and variability reducing traits. Interestingly, we find exceptionally high willingness to pay for short duration varieties. We also attempt to capture heterogeneity in preferences. Our results show that farmers in both drought-prone as well as submergence-prone regions value reduction in yield variability offered by cultivars. Further these valuations are higher for higher income farmers, and farmers belonging to upper (non-scheduled) castes. In addition, we used some post estimation conditioning approaches to better analyze the data and account for attribute non-attendance by farmers in choice sets and derive demand curves for hypothetical bundles of rice seeds.

### **13. A Review of Implementation of Carbon Tax in Mitigating CO<sub>2</sub> Emissions from Road Transport Sector: A Contingent Valuation Approach.**

Monika Gupta (Indian Institute of Management, Lucknow)

*Abstract* - Road transport bears 73% share of total CO<sub>2</sub> emissions from transport sector. High concentration of GHGs leads to air pollution in terms of poor air quality and health related risks. Many countries have adopted carbon tax as a cost effective measure to correct environmental externality and reduce CO<sub>2</sub> emission since early 1990s. But before adopting carbon tax as a policy measure, it is important to determine people's willingness to pay for effective implementation of the same. In order to know the effectiveness of carbon tax in Indian road passenger transport, this study presents the contingent valuation analysis of people's willingness to pay with the help of primary data collected from the most polluted three metropolitan cities of India. Different multiple regression models are used to analyse the data. Findings show that people of India are willing to pay. People support to pay carbon tax only after having an assurance of proper usage of tax. Awareness, interest in environment, health problems are important in determining WTP. WTP is also affected by socio-economic factors like income, education, age, etc. The survey also investigates the potentials of carbon tax to combat CO<sub>2</sub> emissions from road transport sector in India. The study suggests macro level policy recommendations in terms of utilizing fiscal instruments (such as tax) for environmental externalities.

### **14. Impact of Climate Change on Foodgrain Yields in India.**

Saumya Verma (Delhi School of Economics)

*Abstract* - One of the salient issues in climate change economics is the impact of changing climatic patterns and climate extremes on the mean and distribution of agricultural yields. This study examines the impact of climate change on yields of major crops grown in India, namely, rice, sorghum and pearl millet. An agricultural production function is estimated with exogenous climate variables, namely, precipitation and temperature controlling for other non-climate inputs used in

production, namely, irrigation, fertilizer and high yielding variety seeds. To encapsulate the impact of climate extremes, the climate variables are modelled as anomalies. A district level analysis is carried out using a panel data set for 1966-2002. This study departs from the experimental and crop simulation approaches used in the literature. Climate change is found to have adverse impacts on mean and variance of crop yields. Rice yields are found to be sensitive to rainfall extremes, where as extreme temperatures increase sorghum yield variability, with pearl millet yields invariant to both rainfall and temperature extremes.