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Book of Abstracts

Plenary Session

Climbing Out of Poverty: Long-Term Decisions under Income Stress

By
Abhijit Banerjee (MIT)
Sendhil Mullainathan (Harvard University)

This paper develops a simple theoretical framework for understanding why the poor might make very different decisions than the non-poor despite having the same essential preferences. The key modeling idea is to separate the space of goods into things that are valued both contemporaneously and in anticipation, and things that are only valued contemporaneously. The relative concavity of the utility functions over these two sets of goods determines how the behavior of the poor diverges from that of the non-poor. The model helps explain a number of anomalies in the observed behavior of the poor.

Parallel Session 1(a): Credit Markets

Relational Distance and Contracting - Family in Credit Markets

By
Amit Bubna (Indian School of Business, Hyderabad)

Besides information, decisions are importantly affected by factors such as trust and familiarity. The paper explicitly studies the effect of these factors, referred to as relational distance, on various contractual arrangements (guarantee, tied assistance and gift) commonly discussed in economics, in the context of financing a new venture. Given the relational distance between an informed family member and a credit-constrained entrepreneur, we show that these alternative relational contracts are not perfect substitutes; in fact, the family member has a pecking order among them. Besides, very close family, though informed, may not even be able to facilitate bank financing unless the family is wealthy. Thus, the

entrepreneur must in turn choose her family who could help obtain a bank loan based on appropriate level of wealth and relational distance. The paper also has broader implications for societal structure and institutional development.

Microfinance, Subsidies and Dynamic Incentives

By
Suman Ghosh (Florida Atlantic University)
Eric Van Tassel (Florida Atlantic University)

In this paper we develop a two period model of a credit market to study the interaction between a monopolistic moneylender and a subsidized microfinance institution. We assume that lenders face a moral hazard problem that is diminished as agents are able to take increased equity positions in their production projects. In this setting, we identify a range of subsidy levels for which the behavior of the moneylender complements the poverty reduction mission of the microfinance institution. We also explain why a policy of offering subsidized loans in the second period to agents who are poor due to a project failure in the prior period, does not distort agents' incentives to work hard and save in the first period. By varying the subsidy level available to the microfinance institution we discover that for small subsidies the moneylender may be better off with the microfinance institution in the market, and that when subsidies are excessive this can harm the poverty reduction mission of the microfinance institution.

Social Exclusion and Enforcement in Group Lending

By
Jean-Marie Baland (University of Namur)
Rohini Somanathan (Delhi School of Economics)
Zaki Wahaj (University of Namur)

We investigate how formal credit market institutions and informal groups interact to determine the availability of credit to poor households and the structure of social networks. A number of existing studies have shown that social sanctions combined with group lending contracts can improve the access to credit, but have treated sanctions themselves as exogenous. They do not therefore permit an analysis of the effects of formal institutions on networks. We model group interactions as a set of activities that are independent of group lending. We then derive sanctions as the exclusion from the benefits of these activities, and show how lending contracts and the size and composition of social networks are jointly determined in equilibrium. While social networks do bring the poor within ambit of formal credit institutions, lending contracts can also be used by groups to infer characteristics of households and exclude some of them from participating in collective activities. Temporarily greater access to credit for some households may in fact result in their exclusion from social networks and community level public goods.

Parallel Session 1(b): Labour Markets

Labor Market Reform and Poverty – The Role of Informal Sector

By
Sugata Marjit (Centre for Studies in Social Sciences, Calcutta)
Saibal Kar (Centre for Studies in Social Sciences, Calcutta)
Dibyendu Sundar Maiti (Centre for Studies in Social Sciences, Calcutta)

Recent papers, discussing the impact of economic reform in India, argue that the positive effect of reform is more significant in states, which are not ‘labour friendly’. Also labour market reforms seem to be a pre-condition for success of liberal policies as far as their impact on poverty is concerned. We argue that the exact mechanism behind such a link is yet to be clarified. We try to provide such a mechanism in terms of a general equilibrium model involving formal and informal workers. Our framework is capable of providing providing such a link and shows that there are occasions when such link is violated.

Welfare Implications of Child Work and Child Labour in India: Patterns and Determinants

By
Diganta Mukherjee (ICFAI Business School, Kolkata)
Saswati Das (Indian Statistical Institute, Kolkata)

This paper uses household level data from National Sample Survey Organization (NSSO) of India, the 55th round (1999 - 2000), to study the pattern of child labour and child economic activity from the perspective of potential harm hence caused to the children. We first comment on the relative magnitude of the usual incidence measures and the harm adjusted measures put forth by us. We have considered structured light work as skill improving and hence beneficial for the children. This gives rise to the incidence of negative harm (or positive net benefit) to some children due to work. Secondly, we study the possible determinants of such activity and consequent harm among education, income and social status related variables. We find that the parents' level of education plays an important role in reducing harm due to economic activity by the child; thus establishing the linkage between social and human capital outcomes in the family. The child’s own education is also seen as being important in determining this extent.

How Does Poverty Decline? Suggestive Evidence from India, 1983-1999

By
Mukesh Eswaran (University of British Columbia)
Ashok Kotwal (University of British Columbia)
Bharat Ramaswami (Indian Statistical Institute, Delhi)
Wilima Wadhwa (Indian Statistical Institute, Delhi)

A convincing empirical case has been made in the literature that higher growth translates into lower poverty. However, the empirical correlations do not throw light on the process by which different growth strategies impinge on the incomes of the poor. This paper evaluates the relative impacts of productivity growth in agriculture and non-agriculture on India's poverty decline. Such a sectoral decomposition of growth and its impact on poverty is valuable because the sector amenable to faster growth may not be the one whose growth has a greater impact on poverty. This issue is also integral to understanding the process by which economic growth impacts poverty.

The paper sets up a theoretical model to contrast the effects of productivity increase in the farm and non-farm sector, and we find that these effects depend on whether the region under consideration is a closed economy or an open one. Drawing on the theoretical model, the paper undertakes a counterfactual exericse to estimate the relative contribution of the non-farm sector to the increase in the agricultural wage earnings during the period 1983-1999. The contribution is found to be no more than a quarter of the observed wage earnings. The extension of this methodology to individual states requires the assumption that agricultural productivity growth leads to a net increase in nonfarm employement. The paper presents econometric evidence in support of this assumption.

Parallel Session 1(c): Health

Infant Mortality and Child Nutrition in Bangladesh

By
Diane Dancer (University of Sydney)
Anu Rammohan (University of Sydney)
Murray D Smith (University of Aberdeen and University of Sydney)

The excess female infant mortality observed in South Asia has typically been attributed to gender discrimination in the intra-household allocation of food and medical care. However, studies on child nutrition find no evidence of gender differences. A natural explanation could be that in environments of high infant mortality of females, the surviving children are healthier, so that child nutrition cannot be studied independently of mortality. In this paper, we use data from the 2004 Bangladesh Demographic Health Survey to investigate if there are any gender differences in survival probabilities, and whether this leads to consequent differences in child nutrition. We argue the importance of establishing whether or not there exists a dependence relationship between the two random variables - infant mortality and child nutrition – and in order to detect this we employ a copula approach to model specification. The results suggest that male children have a significantly lower likelihood of surviving their first year. However, conditional on survival, they have better height-for-age Z-scores. From a policy perspective, household wealth and public health interventions such as vaccinations are found to be important predictors of better survival and nutritional outcomes.

Little Women

By

Sonia Bhalotra (University of Bristol)

This paper analyses trends in the latter half of the twentieth century in the heights of Indian women. On average, there was some growth in height at maturity for the cohorts of 1950-1965 but the cohorts born in 1965-1975 experienced no growth.

Many of the states exhibit trends similar to the country-average, with the notable exceptions of Kerala, which displayed monotonic growth, and Punjab & Haryana, which started off with the tallest women but then experienced a decline in average height. Both between and within-state variation in height is inversely correlated with infant mortality rates at birth, an indicator of the disease environment. The level of aggregate income at birth, a potential proxy for nutritional status, is positively correlated with height at maturity in the cross-section but this relationship is weak within states. The paper also examines levels and trends by socio-economic group. Higher caste women are taller and this differential is more or less constant over the quarter century for which we have data. Muslim women have grown faster than Hindu women. Height differentials by education and urban/rural location have widened over time although the trend in these differentials is likely to be influenced by compositional change.

The impoverishing effect of adverse health events: Evidence from the Wester Balkans

By

Mariapia Mendola (University of Milan Bicocca)
Caryn Bredenkamp (The World Bank)
Michele Gragnolati (The World Bank)

In this paper, we investigate the extent to which the health systems of the Western Balkans (i.e. of Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo) have succeeded in providing financial protection against adverse health events. We examine disparities in health status, healthcare utilization and out-of-pocket payments for healthcare (including informal payments), and explore the impact of healthcare expenditures on household economic status and poverty. Data are drawn from LSMS surveys and methodologies include (i) generating a descriptive assessment of health and healthcare disparities across socioeconomic groups, (ii) measuring the incidence and intensity of catastrophic healthcare payments, (iii) examining the effect of out-of pocket payments on poverty headcount and poverty gap measures, and (iv) running sets of country-specific probit regressions to model the relationship between health status, healthcare utilization and poverty. On balance, we find that the impact of health expenditures on household economic wellbeing and poverty is most severe in Albania and Kosovo, while Montenegro’s health system seems more effective in providing financial protection.

Parallel Session 2(a): Happiness and Mental Health

Happiness and Inequality Aversion Worldwide

By
Paolo Verme (University of Torino and Bocconi University Milan)

The paper tests the importance of income inequality in predicting life satisfaction using a sample of over 260,000 world citizens covering 84 countries between 1981 and 2004. We find that income inequality is not a good predictor of income inequality across world citizens. The cross-section evidence is that higher income inequality measured at the country or regional level is not consistently associated with lower or higher individual life satisfaction. The same can be said for the static cross-country analysis. Higher inequality in countries is not consistently associated with lower or higher average life satisfaction. However, a cross-country dynamic analysis shows that increases in income inequality over time are associated with decreases in average life satisfaction. This result is rather robust across different specifications of the life satisfaction equation and for ginis calculated on different samples. Moreover, we find that, at any point in time, subjective inequality aversion is not really driven by the level of income inequality but by other individual factors including political orientation, freedom of choice, education, trust, gender and values.

Integrating Mental Health in Welfare Evaluation: An Empirical Application

By
Sanghamitra Das (Indian Statistical Institute, New Delhi)
Abhiroop Mukhopadhyay (Indian Statistical Institute, New Delhi)
Tridip Ray (Indian Statistical Institute, New Delhi)

This paper presents simple measures of individual and family mental health indices based on axiomatic foundations and integrates mental health into a neoclassical model that allows for proper substitution possibilities in the family preferences and quantifies its significance in family utility. We find that mental health effects are far more important than the effect of consumption or children's schooling in determining family utility. We illustrate the usefulness of our approach by considering the case of HIV/AIDS experience in India. Using our approach, we find that while there are no significant differences in per capita consumption and schooling between HIV and NON HOV families, the cost of HIV/AIDS are still considerably large due to the inclusion of mental health. Integrating mental health in a utility maximization framework helps us quantify these costs.

Parallel Session 2(b): Environment (Theory)

Climate Change and The Kyoto Protocol

By
Parkash Chander (National University of Singapore)

This paper interprets the Kyoto Protocol in terms of game theory. Calling upon both positive and normative economics, it analyzes the issues at stake in the current international negotiations on climate change.

The negotiations on climate change2, that have been taking place since the late 1980's within the United Nations institutions, are obviously a worldwide process, judging by the length of the list of the participating countries.3 But these negotiations, prior to the Kyoto meeting, had led only to a "framework convention", signed in 1992 in Rio de Janeiro, that was little more than a declaration of intent. The real issue then was: are the continuing negotiations eventually going to lead to a sustainable agreement bearing on effective actions that is also worldwide? Or will they lead to a breaking up of the countries into separate blocks, each acting to the best of its own interests?

The Kyoto Protocol, signed in December 1997, has been a major development in the post-Rio evolution of these negotiations. Its importance lies mainly in the fact that it requires some countries to take effective actions that would become binding on them once they ratify it.

The Protocol does not require all countries to take specific actions. As our summary presentation reports more in details below, commitments to quantified emission reduction or limitation are mentioned only for the so-called "Annex-1" parties4. The role of the other countries in the agreement, while not ignored, is much less precisely specified.

One natural question that arises is whether the Kyoto Protocol is to be considered as just an "Annex-I" Protocol; or is it to be seen, after further thought and beyond the appearances, as a worldwide Protocol? Below, we defend the second thesis in terms of game theory.

A Non-Cooperative Theory of Quantity-Rationing International Transfrontier Pollution

By
Sudhir A. Shah (Delhi School of Economics)

We study a remedy for the problem caused by international trans-frontier pollution. Our results are derived from the analysis of a non-cooperative game model of the determination of emissions in a quantity-rationing setting. We model the emission capping negotiations using the best response dynamic process and provide natural conditions under which the process has a unique and globally asymptotically stable stationary point. We then analyze the link between type profiles and the stationary points of the negotiation process to derive various comparative statics results and the type-contingent ordering of emission allocations. These results are used to study the investment strategies that nations can use prior to the negotiations in order to manipulate the equilibrium emission caps. A policy implication of our model is that a cap-and-trade arrangement is inferior to a cap-and-hold arrangement if the policy aim is to reduce equilibrium total emission. We also point out some implications of our results regarding the political economy of emission capping.

Parallel Session 2(c): Income Dynamics and the Middle Class

Unequal Chances: The Intergenerational Transmission of Economic Advantage under Marital Sorting

By
T. Lakshmanasamy (University of Madras)

Inequality perpetuates in the absence of intergenerational mobility. The intergenerational transmission of socioeconomic advantage negates the norm of equality of opportunity. This inequality in opportunity or unequal chances is further strengthened by marital sorting, as assortative marriage matches the affluent with the rich and vice versa. Parental investments in the human capital of children are in part motivated by the prospects of attracting a better partner for their children. Parents care about the earnings capacity or the combined income of the married partners while deciding the marriage of their children. The status of his/her own parents as well as that of the parents of his/her partner influence the economic status of children. This paper explores the intergenerational links in the transmission of economic advantage under such marital sorting. We estimate the intergenerational transmission of education and income between parents and children, and between parents-in-law and daughters-in-law and sons-in-law. The estimated intergenerational transmission is quite substantial and more pronounced in the case of daughters. The elasticity of children's income is strongly positive with respect to in-laws income. The empirical results for education also reveal strong positive assortative mating pattern. Spousal earnings is just as elastic as the children's own earnings with respect to the parents and in-laws education and income.

Who Are the Indian Middle Class? A Mixture Model of Class Membership Based on Durables Ownership

By
Sudeshna Maitra (York University)

The size and consumption habits of the Indian middle class have evoked considerable interest in the media in the past two decades. Yet the definition of the middle class has been nebulous at best. I propose the use of a mixture model of class membership to identify and estimate the size of the lower, middle and upper classes in urban India, based on their distinct durables ownership patterns. Estimates using NSS data (55th Round, 1999-00) suggest that the urban middle class in India constitutes approximately 62% of urban households (which implies about 17% of all households) with mean ownership of 3 durable goods (out of 12). I also estimate the probability that each household in the sample belongs to a particular class and based on this information, back out some class-specific socioeconomic characteristics. The estimates suggest a larger urban middle class and lower class-defining income cutoffs than found (or used) in previous studies.

Plenary Session

Life Satisfaction and Quality of Development

By
John F. Helliwell (University of British Columbia)

This paper argues that measures of life satisfaction, now being collected annually by the Gallup World Poll in more than 130 countries, permit a much broader view of the quality and consequences of development than other common measures. While these data show the importance of conventionally measured economic development, they also show the importance of many other elements of life that are also affected, whether deliberately or not, by community, national, and international institutions and policies. In estimating the importance of these other factors, this paper pays special attention to the social context of well-being: the norms, networks and relationships within which lives are lived.

Parallel Session 3(a): Political Economy

On the Political Economy of General Strikes

By
Abhirup Sarkar (Indian Statistical Institute Calcutta)

The paper seeks to explain why in LDCs like India political parties call *bandhs* or general strikes which, unlike strikes in a factory, are often held as general protests without any specific economic goal to achieve. While the economy, especially the vulnerable section of its population, loses from these general strikes, it is not immediately clear how political parties gain from them. We argue that political parties call general strikes to signal their support, which determines their probabilities of winning elections as perceived by the vulnerable. The vulnerable, who are crucially dependent on political favours for their survival, in turn, are more likely to join the party which can signal more support and a higher probability of winning.

Creating Collateral: Markets, Networks, and the Political Economy of Legal Reform

By
Tim Besley (London School of Economics)
Maitreesh Ghatak (London School of Economics)

It is widely understood that the operation of markets requires supporting legal structures. In their absence, trade is restricted to relational contracting within networks. This paper develops a model of contracts and matching of producers and suppliers to characterize the equilibrium in an economy where trade is relational and markets are fragmented. In this setting we study the effects of introducing a legal system that permits anonymous or arms length trading between any two producers and suppliers, distinguishing between partial

equilibrium (contracting) and general equilibrium (rematching) effects. We also analyze how economic and political factors interact in the political economy of legal reform.

Policy compromises: corruption and regulation in a democracy

By
Toke S. Aidt (University of Cambridge)
Jayasri Dutta (University of Birmingham)

This paper evaluates the extent of regulation in a democracy with corruption. Elected politicians can restrict entry of firms in exchange for bribes from entrepreneurs. Full liberalization implies free entry and allocative efficiency. Voters reelect politicians based on observed performance. We demonstrate that voters agree to tolerate corruption and inefficient regulation; that efficient policies can be promoted by productivity growth; that productivity growth reduces the cost of providing wage incentives; and that economic policy is counter-cyclical in a corrupt democracy.

Parallel Session 3(b): Trade

Bilateralism, Pure Multilateralism, and the Quest for Global Free Trade

By
Kamal Saggi (Southern Methodist University)
Halis Murat Yildiz (Ryerson University)

This paper develops an equilibrium theory of trade agreements and evaluates the relative merits of bilateralism and multilateralism. We derive coalition proof (stable) Nash equilibria of a three-country game in which each country is free to negotiate a trade agreement with only one of its trade partners, or both of them (i.e. practice free trade), or none of them (i.e. opt for the status quo). To determine whether and how bilateralism matters, we also analyze this game under the assumption that countries follow a purely multilateral approach to trade liberalization. Results show that: (1) under symmetry, global free trade is a stable equilibrium regardless of whether countries can pursue bilateral agreements or not; (2) when countries have asymmetric endowment levels, there exist circumstances under which free trade is a stable equilibrium only if countries are free to sign bilateral agreements; (3) welfare improving bilateral agreements can be stable when global free trade is not; and (4) while bilateralism can sometimes undermine global free trade — such as when two similar sized countries are better off under a bilateral agreement relative to global free trade — the parameter space over which this happens is relatively small and (5) the option to form bilateral trade agreements necessarily reduces the likelihood of obtaining the status quo as a stable equilibrium.

Lobbying for Trade Regime and Tariff Setting

By
Katsuzo Yamamoto (Kobe University)

This paper considers the effects of a firm's lobbying activity on the domestic government's trade policy decision in a political economic approach. Our concern is about the effects of firm's lobbying activity not only on tariff setting but also on trade regime decision. We can derive the following two conclusions from our political economic model. First, if the partner country's market size is large enough, then the domestic government prefers to participate in an FTA with its country. However, if the market size of the rest of the world is large enough compared to that of the partner country, then the government prefers to carry out complete free trade. Second, in the increase of the weight the government attaches to campaign contributions compared to the aggregate welfare, it tends to choose unilateralism or bilateralism rather than multilateralism.

Immigration versus Outsourcing: A Developing Country's View

By
Simontini Das (Jadavpur University)
Ajitava Raychaudhuri (Jadavpur University)
Saikat Sinha Roy (Jadavpur University)

This paper provides a theoretical as well as an empirical analysis to make a comparative study between the temporary immigration policy and the product outsourcing process, from the developing country's view. In the theoretical part, a simple general equilibrium model is framed. This model establishes an inverse relationship between the temporary immigration policy and the product outsourcing, in a two-country framework. Though the temporary immigration enhances the world welfare level and also the developed country's welfare level, but its impact on the welfare level of the developing country is uncertain. In the empirical part, a significant relationship between temporary immigration policy and product outsourcing demand is estimated. A panel data analysis for the developing countries shows that product outsourcing is a better option for the developing country than temporary immigration.

Parallel Session 3(c): Literacy and Education

A New and Easy-to-Use Measure of Literacy, Its Axiomatic Properties and an Application

By
Kaushik Basu (Cornell University)
Travis Lee (Cornell University)

It can be argued that just as there are different kinds of literacy, there are different kinds of illiteracy. A ‘proximate illiterate,’ i.e. an illiterate who has easy access to a literate person, is clearly better off than someone without such access. The existing literature that takes account of these differences (1) defines an illiterate person to be a proximate illiterate if he or she lives in a household with at least one literate person and (2) derives new measures of literacy which typically exceed the standard literacy rate. The latter risks generating policy complacency. The aim of this paper is to suggest a measure of literacy that is not limited by (1) and (2). The measure is axiomatically characterized and its use is illustrated with a numerical exercise for the provinces of South Africa.

Elite Dominance and Under-investment in Mass Education: Disparity in the Social Development of the Indian States, 1960-92

By
Sarmistha Pal (Brunel University (UK) and IZA)
Sugata Ghosh (Brunel University, UK)

Inter- and intra-state disparities in levels of literacy rates in India are striking, especially for the marginalized groups of women and low caste population. The present paper argues that persistent dominance of the elite, especially landed elite, has been responsible for systematic under-investment in mass education in the Indian states.

Results based on the Indian state-level data for the period 1960-92 suggest that greater inequality in landholding lowers pubic spending on education while greater degree of land reform legislation as well as industrialisation enhances it. Greater proportion of minority representation (female and low caste members) in the ruling government however fails to have any perceptible impact on public spending in our sample.

Non-discrimination in an Elite Labour Market: Job Placements at the Indian Institute of Management – Ahmedabad

By
Sujoy Chakravarty (Indian Institute of Technology, Delhi)
E. Somanathan (Indian Statistical Institute, Delhi)

Using data on the IIM-Ahmedabad's 2006 batch of MBA graduates, we find no evidence of discrimination against minorities by employers in campus placements. Controlling for work experience and GPA, there is no wage penalty to being female, or of belonging to a Scheduled Caste or Tribe (SC/ST). Moreover, unlike the case in US labour markets, there is no wage premium to being more attractive, where attractiveness was measured in the standard manner by anonymous ratings of passport-type photographs by twenty raters. Depending on the exchange rate used, SC/ST graduates may get slightly lower wages than those in the general category possibly due to lower GPA's stemming from their, on average, weaker incoming academic records. The small size of this wage penalty suggests that the impact of reservations for SC/ST candidates on the IIM's "product" is small (at least at the start of the graduates' careers), despite the large size of the reservation and the significantly lower incoming marks of SC/ST candidates. It also suggests that the stagnation of the percentage of women at 15% over the last 18 years could be corrected at little cost to the IIM by positive discrimination at the margin in favour of women.

Parallel Session 4(a): Agriculture & Industry

Land-use Changes and Agricultural Growth in India, Pakistan, and Bangladesh, 1901-2004

By

Takashi Kurosaki (Hitotsubashi University)

This paper investigates land-use changes in India, Pakistan, and Bangladesh, associates the changes with long-term agricultural performance, and shows the importance of crop shifts in enhancing aggregate land productivity, which is a source of growth unnoticed in the existing literature. The use of unusually long-term data that correspond to the current borders of India, Pakistan, and Bangladesh for the period 1901-2004 also distinguishes this study from the existing ones. The empirical results show a sharp discontinuity between the pre- and the post-independence periods in all of the three countries: total output growth rates rose from zero or very low figures to significantly positive levels, which were sustained throughout the post-independence period. The improvement in aggregate land productivity explained the most of this output growth. The decomposition results focusing on quantifying the effect of crop shifts show that the crop shifts did contribute to the productivity growth in all three countries, especially during the periods with limited technological breakthroughs. The contribution of the crop shifts was larger in India and Pakistan than in Bangladesh, where rice is too dominant as the staple crop. The decomposition results and changes in crop composition are consistent with farmers' response to comparative advantage under liberalized market conditions.

Intellectual Property Protection and Technology Transfer: Evidence from US Multinationals

By

Sunil Kanwar (Delhi School of Economics)

This paper investigates whether, in what direction, and to what extent one mode of technology transfer is influenced by the strength of intellectual property protection that host nations provide. Using data spanning the period 1977-1999, we find little support for the claim that strengthening intellectual property rights will have any sizable effect on the magnitude of overseas r&d investment by (US) multinationals. Any semblance of a positive relationship between these two variables vanishes the moment we introduce country fixed effects and time fixed effects into the regressions. One implication of our results is, that ceteris paribus, stronger intellectual property rights in the developing countries pursuant to the TRIPs agreement may not have any significant influence on technology transfer into these countries via overseas r&d.

Why Privatize? The Decline of Public Ownership and its Impact on Performance in Indian Industry

By
Sumit K. Majumdar (University of Texas at Dallas)

This article examines patterns of decline in the public ownership of the corporate sector in Indian industry over a twenty five year period, 1973-74 to 1997-98, to assess whether a transformation in ownership has taken place and whether the boundaries of the state as a participant have significantly declined. The data cover the entire industrial population of India, albeit at an aggregate level, with the findings having immediate salience and applicability to current concerns. Privatization in a significant way has not taken place in India; nevertheless, the boundaries of the state as an industrial participant have shrunk significantly as a result of the growth of private entrepreneurship in India. The numbers of private companies being established in India have grown and the volume of equity capital being invested has risen substantially, both in absolute volume terms as well as in investment per company. This trend has been pronounced in the post-1991 period, after reforms were introduced in India. Associated with this relative shrinking of government ownership is a significant increase in industrial performance. When the data for 1973-74 to 1997-98 are augmented with data for the 1998-99 to 2001-02 period the relationship between the shrinkage of the boundaries of the state and performance remains significant. Autonomous private sector growth has had a substantial impact in enhancing performance. Thus, the role of privatization as a mechanism to enhance performance becomes moot in the Indian context, especially since the costs of adjustment can be high, if the decline in relative government shareholding comes about as a result of other means, such as the growth of entrepreneurship in India. Simultaneously, the resources of the state can be better spent on actively encouraging investment activities rather than in undertaking divestment activities.

Parallel Session 4(b): Environment (Empirics)

Addressing Equity Issues in Watershed Development Projects in Bhil Adivasi areas of Western Madhya Pradesh

By
Rahul Banerjee (Krishnodayanagar, Indore)

The western Madhya Pradesh region of India, which is largely populated by Bhil adivasi (indigenous people) peasants, is typical of other such adivasi regions of the country in that fragmentation of landholdings coupled with the neglect of dryland agriculture has severely jeopardised the livelihoods of the people and forced them to further mine their immediate environment for subsistence needs. In such a scenario systematic work to bring about equitable and sustainable development is hindered by the fact that common property resources are most often privatised and people who are in control do not want to let go of

them. This paper details how two NGOs, SAMPARK and SAMAJ PRAGATI SAHAYOG have creatively overcome this through inspiring communitarian problem solving and the building up of social capital. However the paper concludes by underlining the fact that widespread equitable and sustainable development through the replication of such one off successes is prevented due to the lack of political capital needed on a larger scale to challenge the dominant paradigms of governance and development.

Mine over Matter? Health, Wealth, and Forests in a Mining Area of Orissa

By
Subhrendu K. Pattanayak (RTI International and North Carolina State University)
Erin Sills, Shubhayu Saha, Jui-Chen Yang, Pravash Sahu and Ashok Singha

Can mining serve as a pathway for economic development despite the environmental externalities? The co-occurrence of poor economic performance and natural resource abundance is an empirical regularity. The extensive literature on this ‘resource curse’ phenomenon at the national level generally finds that economic dependence on point resources such as minerals is associated with lower levels of economic growth and human welfare. Various explanations have been offered for this association, many related to trade, rent-seeking, and national political institutions. Our premise is that further insight can be obtained through consideration of the resource curse at the micro level, because of heterogeneity in institutions, natural resources and economic behaviors. We empirically test the resource curse at the household and village level in Orissa, India, using data from household surveys and secondary community statistics. Specifically, we examine the possibility that iron ore mining undermines welfare, as represented most fundamentally by health status, conditional on wage earnings. Clearly, mining workers could face occupational health issues from employment in the mine, but direct impacts on individuals are at least potentially compensated through wage differentials. Of greater concern are environmental health effects that occur through degradation of water quality, air quality, or forest resources that are central to the livelihoods of tribal populations in the mining belt. Identification of this environmental health effect requires controlling for the endogenous occupational health effect. The data are from a stratified random sample of 600 households in twenty villages in the mining district of Keonjhar in Orissa. Detailed information on demography, labor allocation and employment, dependence on forest products, health, perceptions of change in local environment were elicited through the interviews. Using GIS, the household data were integrated with secondary spatial data on land cover, hydrology, and location of mines. This allowed us to construct multiple measures of exposure to iron ore mines and access to forest resources. Bivariate analysis at the village level and econometric models at the household level demonstrate the multi-faceted nature of the relationships between mine exposure, forest resources and human welfare. While households closer to mines report higher income from wage employment and better access to infrastructure, they experience higher incidences of many illnesses, rank lower on indicators of human development and own less land and assets for agricultural production. They also derive fewer benefits from the forest, possibly an outcome of the degradation and reduced access to forest reported in villages closer to mines. Multivariate models suggest that the negative impact of mines on environmental health is robust to controls for occupational health and other socio-economic and environmental

determinants. This analysis remains timely because of on-going violent conflicts and concern over negative impacts on the welfare of rural populations in the mining areas of India, which is consistent with the notion of a resource curse. Thus, in addition to testing the resource curse at the micro scale, our analysis can inform the policy discourse over the expansion of the mining sector in Orissa.

Against the Dominant Discourse: Making a Case for Groundwater Irrigation for Poverty Alleviation in West Bengal, India

By
Aditi Mukherji (International Water Management Institute)

West Bengal is a state of plentiful rainfall and high groundwater potential. It is also one of the poorer states in India. In view of this, many agencies such as RBI and the World Bank have recommended groundwater irrigation as a tool for poverty alleviation. West Bengal had recorded high agricultural growth rates in the early 1990s. Unfortunately, this growth could not be sustained. This paper argues that one of the main reasons for recent stagnation in West Bengal's agriculture is the severe 'energy-squeeze' it is experiencing due to overwhelming dependence on diesel pumps, recent escalation in diesel prices and low rates of rural electrification. This paper argues that the current groundwater related policies have a resource conservation bias because they have been inordinately influenced by the dominant discourse on scarcity and depletion – a discourse which does not hold good in the case of West Bengal – a water abundant state steeped in poverty. In view of this paradox of scarcity amidst plenty, this paper based on primary data from 40 villages and 580 respondents makes a case for deploying groundwater irrigation for poverty alleviation through electrification of irrigation tubewells and continuation of high flat rate tariff. Quite contrary to the received wisdom that electricity subsidies benefit only the rural rich and that metering of irrigation tubewell is the only answer, this paper argues that neither is necessarily true in the case of water abundant eastern India where efficient and largely equitable groundwater markets operate.

Parallel Session 4(c): Taxation and Fiscal Policy

Redistributive Taxation and Administrative Costs

By
Rohit Prasad (Management Development Institute, Gurgaon)

I analyze the impact of administrative costs on the determination of the optimal rate of redistributive direct and indirect taxes. In the case of direct taxes it is shown that for any tax rate, an increase in the administrative cost coefficient amounts to a reduction in the effective rate of taxation leading to higher output and profits at the expense of worker welfare. Social welfare declines with an increase in the cost coefficient. The optimal rate of tax may decrease with an increase in the cost coefficient.

Indirect taxes are neutral as the increased costs borne by the entrepreneurs and the increased purchasing power of workers who are the recipients of the tax transfer nullify one another leaving output constant. A leakage in tax revenue that administrative cost represents makes indirect taxes non-neutral. An increase in the administrative cost coefficient amounts to an increase in the effective tax rate in an equivalent economy where the leakage rate is 100 percent, i.e. all the tax is lost in administration. This increase in the cost coefficient results in a decline in output and profits if leisure and output are strong substitutes. However in case leisure and output are complements, the increase in the cost coefficient can result in an increase in output and profits, but at the expense of worker welfare. In the event of an increased cost coefficient a suitable decrease in the tax rate restores the economy to the equilibrium at the original cost coefficient. Unlike in the case of direct taxes, social welfare remains constant or increases with an increase in the administrative cost coefficient. In case it remains constant, the optimal indirect tax rate decreases with an increase in tax leakage.

Fiscal Policy, Congestion, and the Dual Nature of Public Goods

By
Santanu Chatterjee (University of Georgia)
Sugata Ghosh (Brunel University)

We examine the impact of fiscal policy on macroeconomic performance when public goods play a dual role by simultaneously providing both productive and utility services to the private sector. When these services are subject to congestion, a consumption tax is distortionary, generating a dynamic adjustment that contrasts an income tax. The design of optimal fiscal policy demonstrates the possibilities for using both income- and consumption-based fiscal instruments as opposed to relying on the income tax alone. In correcting for congestion, an income tax-consumption subsidy combination is the preferred policy when factor-substitutability in production is limited. On the other hand, an increase in the elasticity of substitution in production raises the efficacy of a consumption tax as an alternative to the income tax. If the dual benefits of public goods are not internalized, it might lead to significant errors in evaluating the impact of public policies on welfare.

Public Investment Reversals, Inequality and Borrowing: Fiscal Polity in India

By
Errol D'Souza (Indian Institute of Management, Ahmedabad)

With economic growth as a priority goal of the state it is a puzzle as to why public investment declined since the mid 1990s despite no significance reduction in fiscal deficits. This paper advances the proposition that public investment affects the returns to the distribution of factor endowments differentially. The rise in inequality then turns the attention of the state towards redistribution. Even when expenditure are financed by borrowing rather than taxation, increased inequality that creates pressures for redistributive transfers crowds out public investment. Future income generation gets adversely affected by a reversal of public investment which makes creditors impose borrowing constraints on the state. This can take the form of the enactment of fiscal responsibility legislation.

Plenary Session

Development Strategy: the State and Agriculture since Independence

By
T.N. Srinivasan (Yale University)

There is a widespread belief that India is currently in an agrarian crisis. A spate of suicides by farmers in the states of Andhra Pradesh, Karnataka, Madhya Pradesh and Maharashtra since the 1990s is seen as a tragic symptom of the crisis. In the large and growing literature on the factors contributing to the crisis to some common themes emerge: the role of systemic economic reforms since 1991, the opening of the Indian economy to external competition and investment after decades of insulation; the impact on India of implementing the Agreement on Agriculture of the Uruguay Round of Multilateral Trade Negotiations; the alleged neglect of agriculture in the planning process since the mid-eighties; the decline of public investment in agriculture in response to rising fiscal deficits at the Centre and the States; and above all, the slowing of the growth of agricultural output (particularly food grains) as well as a stagnation in yields per hectare of land since the nineties.

Without dismissing the above-mentioned factors altogether, this paper argues that the fundamental factor that is at the root of the current state of agriculture is India's pursuit, until the 1991 reforms, of a state-directed, state-controlled and state-dominated development strategy of import substituting industrialization with emphasis on heavy industry and insulation from the world economy. This strategy completely ignored the lessons of economic history: successful development lies in the transformation of economic structure by shifting a substantial part of the large initial share of labour force in agriculture and other low productivity activities in the informal sector to more productive off-farm activities through rural and urban industrialization with emphasis on labour-intensive manufactures to supply growing domestic and world markets and raising agricultural productivity. Leap-frogging the labour-intensive manufacturing stage of development altogether and focusing on information technology intensive services sector to bring about the transformation is not simply not feasible. This paper elaborates this main point by looking at major policy interventions in agriculture since independence relating to **agrarian structure** (reforms of land tenure, ownership and tenancy), **market structure** (restrictions on domestic spot markets and banning of futures markets, interventions in credit markets, restrictions on participation in world trade, state trading, subsidies on prices of inputs and outputs) and public investment. It will argue that there was no coherence, and little coordination among the centre, states and other policy making institutions in the decisions on the myriad interventions and their effectiveness in achieving their intended objectives was also limited in most cases. Above all the interventions were mostly intended to improve the welfare of those dependent on agriculture while keeping them in agriculture and to raise yields and output, and not for transforming traditional agriculture.

Parallel Session 5(a): Topics in Microeconomics

Witness Intimidation

By
Rajiv Sethi (Columbia University)
Brendan O'Flaherty (Columbia University)

Witness intimidation is a fundamental threat to the rule of law. It also involves signi.cant strategic complexity and two-sided uncertainty: a criminal cannot know whether his threat will effectively deter a witness from testifying, and a witness cannot know whether the threat will in fact be carried out. We model this interaction and explore the manner in which equilibrium rates of intimidation, testimony, and conviction respond to changes in prosecutorial effectiveness, police-community relations, and witness protection programs. An increase in prosecutorial effectiveness raises the incentives for criminals to threaten witnesses but also makes these threats less credible. Sometimes the rise in threats will be large enough to drive down the rate of conviction, with the paradoxical outcome that better prosecutors may convict fewer criminals. Direct attempts to reduce witness tampering may also prove counterproductive. When the harm faced by a witness itself depends on whether or not the criminal is convicted, communities can be trapped in equilibria with collective silence: no witness testifies because none expects others to testify.

Workers without Borders? Culture, Migration and the Political Limits to Globalization

By
Sanjay Jain (University of Virginia)
Sharun W. Mukand (University of Warwick)

Despite potentially large welfare gains, the barriers to the international mobility of workers are high and persistent. We develop a simple framework that throws light on why the globalization of labor differs from that of goods and capital. In doing so we ask whether a government will ever spurn the large welfare increase from freer labor mobility, even if such a policy had no distributional impact on native workers, was desired by the host country's citizens and if the repatriation of overstaying workers could be costlessly enforced. In addressing these questions we examine the role of culture in driving the political economy of migration policy.

The paper shows that there exists a broad political failure that results in inefficiently high barriers restricting the import of foreign workers. We examine the conditions under which a country is best positioned to reap the economic gains from the globalization of temporary (or permanent) labor migration. We show that culturally homogeneous countries that are poor at cultural assimilation may be better positioned to take advantage of short term foreign worker programs than more culturally diverse and tolerant countries. Our framework suggests that simple alteration of existing policy measures can help encourage international labor mobility. In particular, restrictions on the mobility of the foreign worker across firms (e.g. the H-1B program in the U.S. or the Employment R in Singapore) might work to the detriment of the

host country, and make it more difficult to sustain a credible temporary worker migration program. Therefore, any policy measure that improves the mobility (and bargaining power) of the foreign worker helps not only the worker, but more surprisingly, also boosts host country welfare.

On Institution Building

By
Sumon Majumdar(Queen's University)
Sharun W. Mukand (University of Warwick)

In this paper, we examine the role of policy intervention in engendering institutional change. We argue that successful intervention is difficult since local political interests often undermine even benevolent policy interventions. In particular, we show that first order changes in the political structure (e.g. introduction of democracy) may be accompanied by institutional persistence and no improvement in the quality of governance. In this scenario, we identify two effects of development policy as a tool for institutional change. One, by increasing political accountability, it may encourage nascent democratic governments to invest in good institutions — the incentive effect. However, we show that it also increases the incentive of the rentier elite to tighten their grip on political institutions — the political control effect. Which of these dominate determine the overall impact on institutional quality. Under some conditions, by getting the elite to align their economic interests with that of the majority, development policy can lead to democratic consolidation and economic improvement. However if elite entrenchment is pervasive, then comprehensive change may require more coercive means. Thus for successful policy intervention, a good knowledge of local conditions and an appropriately tailored policy is needed for bringing about comprehensive change.

Cooperative Managerial Delegation, R&D, and Collusion

By
Rupayan Pal (Gokhale Institute of Politics and Economics, India)

Existing literature on managerial delegation indicates that collusive outcomes can be obtained in an oligopoly game through cooperative managerial delegation. In contrast, this paper shows that, if managers are delegated to choose R&D, in addition to choosing production levels, full-collusive outcomes cannot be achieved through cooperative delegation. Moreover, (a) under cooperative delegation, semi-collusion always yields lower profit, higher R&D, higher price, and lower social welfare than that in case of competition, and (b) cooperative delegation leads to higher profit, lower R&D, higher price, and lower social welfare than no delegation case, irrespective of product market conducts.

Parallel Session 5(b): Corruption and Governance

Threshold Effects of Corruption: Theory and Evidence

By
Niloy Bose (University of Wisconsin-Milwaukee)
Antu Panini Murshid (University of Wisconsin-Milwaukee)
Salvatore Capasso (University of Naples)

We examine the impact of corruption on the quality of public infrastructure. We propose a model in which private vendors supply governments with inputs necessary for the production of public goods. Asymmetric information between the two parties creates opportunities for vendors to earn profits. These profits can be re-distributed to government bureaucrats without impacting on the contractual form, as long as firms do not operate at a loss. Thus corruption adversely affects the provision of public goods only when it crosses a threshold. These results are examined in a sample of up to 125 countries. Consistent with our theory, we find strong evidence of a “corruption threshold.”

Corruption and Trade in General Equilibrium

By
Sugata Marjit (Centre for Studies in Social Science, Calcutta)
Biswajit Mandal (Visva Bharati University)

We use the Heckscher – Ohlin – Samuelson- Vanek (HOSV) model of international trade to find out a link between corruption and the pattern of trade, not just its effect on the volume of trade, the usual point of query in the existing literature. We prove that greater corruption in labor-abundant countries will restrict the volume of world trade by working against the factor endowment bias. This is caused by a class of intermediaries who are engaged in mitigating the transaction cost of corruption. Corruption in capital-abundant countries reinforces the factor endowment bias and therefore should promote trade. For countries with similar factor endowments, relatively corrupt economy will export capital-intensive goods. We show that corruption does not necessarily reduce global volume of trade. Relatively capital-abundant country will be worse off with increasing degree of corruption at home and abroad, whereas the labor-abundant country, once engaged in trade may gain from corruption.

Auditing, Governance and Reporting: An Experimental Investigation

By
Sudeep Ghosh (City University of Hong Kong)
Bin Srinidhi (Hong Kong Polytechnic University)

We use a controlled laboratory setting to experimentally examine the role of auditing and market-based-governance in restraining managerial expropriation and in- accurate financial reporting. Managerial expropriation is broadly defined as the enabling of all actions that opportunistically transfer wealth from investors to managers through understatement of

realizable income. Similarly, auditing is broadly defined as all the auditing and governance systems that increase the likelihood of accurate reporting of realizable income. Market-based governance is operationalized by a device (poison pill) that entrenches managers. The results of the experiment reveal that the market con-verges to equilibrium even without auditing. However, auditing reduces expropriation, attracts more capital and thereby increases the overall welfare, after accounting for the cost of auditing. Further, we show that poison pill adoption results in a demand for more audit and lower net inflow of capital. The effect of poison pill on expropriation is mixed. These findings have significant implications for regulators and policy makers in that the social welfare is likely to be higher under a regime of minimum audit and governance standards compared to a regime without such mandates.

Parallel Session 5(c): Topics in Macroeconomics

Why Do The Rich Save More? A Theory and Australian Evidence

By
Debajyoti Chakrabarty (University of Sydney)
Hajime Katayama (University of Sydney)
Hanna Maslen (University of Sydney)

We provide a theory to explain the existence of inequality in an economy where agents have identical preferences and have access to the same production technology. Agents consume a "utility" good and a "health" good which determines their subjective discount factor. Depending on initial distribution of capital the economy gets separated into different permanent-income groups. This leads to a testable hypothesis: "The rich save a larger proportion of their permanent income". We test this implication for the savings behaviour in Australia. We show that even after controlling for life-cycle characteristics permanent income and savings are positively correlated. An improvement in the health leads to a positive effect on savings behaviour.

Public Investment and Growth: The Role of Corruption

By
M. Emranul Haque (University of Manchester)
Richard Kneller (University of Nottingham)

In this paper, we examine the growth effects of public investment in the presence of corruption. Our methodology improves on previous research on this topic by explicitly recognizing the role of simultaneity between public investment, corruption and growth and the possible biases arising from omission of correlated variables from the single reduced form equation based analysis. We use three-stage least squares method in a panel set up for a system of four equations on growth, public investment, corruption and private investment. Our primary results are twofold. First, corruption increases public investment. Second, corruption reduces the returns to public investment and makes it ineffective in raising economic growth.

Intergovernmental Transfer Rules and State Fiscal Policy in India

By
Poulomi Roy (Jadavpur University, Kolkata)
Ajitava Raychaudhuri (Jadavpur University, Kolkata)

In the federal economy like India intergovernmental transfer policies affect the state revenue and expenditure policies. This paper provides a theoretical model of determining optimal fiscal policy of the state governments in India. State's optimum fiscal policy depends on the rules applied by transferring agencies in transferring funds to the sub national governments. Three important criteria revenue effort, deficit financing and distance criterion are considered to estimate the weight assigned to these criteria. The comparison of actual state own revenue and expenditure policies with the optimum policy reveals that states are spending more than estimated optimum level and collecting revenues less than the optimum level. The deviation of actual values from the optimum values also give us some idea regarding to which direction the state governments should change its existing revenue and expenditure policies. The period of analysis is 1981 to 2001 and states considered are Andhra Pradesh, Karnataka, Orissa, Tamil Nadu and West Bengal.

A General Equilibrium Open Economy Model for Emerging Markets: Monetary Policy with a Dualistic Labor Market

By
Ashima Goyal (Indira Gandhi Institute of Development Research)

An optimizing model of a small open emerging market economy (SOEME) with dualistic labour markets and two types of consumers, delivers a tractable model for monetary policy. Differences between the SOEME and the SOE are derived. Parameters depend on features of the labour market and on consumption inequality, and affect the natural interest rate, terms of trade and potential output. The supply curve turns out to be flatter and more volatile, with a larger number of shift factors. A simple basic version of the model is simulated in order to compare different policy targets in response to a cost shock. Flexible domestic inflation targeting delivers stability and the lowest volatility. Some weight on output and on interest smoothing allows monetary policy to be less contractionary. Exchange rate flexibility is less but still makes a major contribution to controlling inflation.