THE INSTITUTE FOR ECONOMIC DEVELOPMENT

RESEARCH REVIEW

Contents

Spring 2000

Recent Discussion Papers

- **"Social Exclusion and Ethnic Groups: The Challenge to Economics"** *Glenn Loury* 2
- **"Plants and Productivity in International Trade"** *Andrew B. Bernard, Jonathan Eaton, J. Bradford Jensen, and Samuel Kortum* 2
- **"Corruption and Decentralization of Infrastructure Delivery in Developing Countries"** *Pranab Bardhan and Dilip Mookherjee* 3
- **"The Impact of Financial Crises on Labour Markets, Household Income and Poverty: A Review of Evidence"** *Peter R. Fallon and Robert E.B. Lucas* 4
- **"Job Stability in Developing and Developed Countries: Evidence From Colombia and the United States"** *Julie Anderson Schaffner* 5
- **"Heteroscedastic Sample Selection and Developing Country Wage Equations"** *Julie Anderson Schaffner* 6
- **"Credits, Crises, and Capital Controls: A Microeconomic Analysis"** *Zvika Neeman and Gerhard O. Orosel* 6
- **"Designing Stabilization Policy in a Monetary Union"** *Russell Cooper and Hubert Kempf* 7
- **"Contractual Constraints on Firm Performance in Developing Countries"** *Dilip Mookherjee* 8
- **"Relative Capture of Local and Central Governments: An Essay in the Political Economy of Decentralization"** *Pranab Bardhan and Dilip Mookherjee* 9
- **"Language Skill Complementarity: Returns to Immigrant Language Acquisition"** *Eli Berman, Kevin Lang and Erez Siniver* 9
- **"Why Dowries?"** *Maristella Botticini and Aloysius Siow* 10
- **"Financial Fragility in a Monetary Economy: Positive Implications and Policy Prescriptions"** *Russell Cooper and Dean Corbae* 11

Other Faculty Research 12-13

IED Research in Progress 14-15

Ordering Information 16

The Institute for Economic Development (IED) is a research center within Boston University's Department of Economics.

"Social Exclusion and Ethnic Groups: The Challenge to Economics"

Glenn Loury
IED Discussion Paper 106, May 2000

This paper, the text of the author's presentation to the 1999 Annual World Bank Conference on Development Economics, first discusses the concept of social exclusion generally, and then specifically in the context of racial inequality in the U.S. It starts by reviewing the literature on the problem of social exclusion of racial and ethnic groups. Loury argues that the problem spans geographic and political boundaries, and reflects universal social dynamics. Accordingly, much can be learned from studying the nature of such problems in different societies. In most contexts, inequality and social conflict entail not just economic but also sociological and political factors. Social sciences such as economics have approached the problem in an excessively narrow fashion, frequently overlooking its inherent ethical, cultural and philosophical dimensions.

The discussion then continues in the context of racial injustice and discrimination in the U.S. Loury argues the need to transcend narrow concepts of market discrimination common among economists, which cares only whether members of different races with identical factor endowment (such as skill) are equally well treated in market relationships. This overlooks the fact that individuals are embedded in complex social networks that shape their preferences and endowments. The importance of familial and communal resources is manifested in many ways: through the dependence of children on their parents and local communities for the development of their physical, intellectual and moral selves. Social and psychological externalities can cause entire groups to be trapped in a low state of development. These are richly documented by social and ethnographic studies of racial minorities in U.S. inner cities.

The last section of the paper considers policy implications, and argues that policies should be assessed in terms of their consequences for racial minorities. In particular, *color-blind* approaches to policy are inconsistent with attempts to secure social justice, given the preceding discussion which attests to the significance of racial and group identity in social and economic outcomes. Collective public effort to mitigate social exclusion of ethnic and racial minorities forms part of a coherent philosophical approach that is entirely consistent with individualism and democratic ideals. Affirmative action policies have to be carefully designed to minimize negative stereotyping effects that reinforce the processes of racial inequality. In this light Loury makes a case for 'developmental' rather than 'preferential' affirmative action policies, wherein racially targeted assistance is offered on a short-term basis in order to prepare recipients for arenas of competition where they would be assessed in the same way as anyone else.

"Plants and Productivity in International Trade"

Andrew B. Bernard, Jonathan Eaton, J. Bradford Jensen, and Samuel Kortum
IED Discussion Paper 105, April 2000

A new empirical literature that examines international trade at the level of individual producers has uncovered stylized facts that pose challenges to standard trade theory. Most notably,

plants that export are scattered across industries, exporters earn most of their revenues in domestic markets, and productivity differs dramatically across plants within an industry. Trade theory has traditionally had little to say about these producer-level facts and is, in many cases, inconsistent with them. In this paper, Bernard *et. al.* develop a model of international trade with the following three key features. They introduce Ricardian differences in technological efficiency across producers and countries, which enables them to explain plant heterogeneity. Second, incorporation of export costs reconciles the coexistence of exporters and domestic producers within the same industry. Third, they introduce Bertrand competition into the Ricardian model, thus furnishing a link between value added per worker (a standard measure of productivity) and technological efficiency.

The authors construct an empirical framework that connects micro and macro level data. In this context, plant-level stylized facts are reconciled with a fully articulated and calibrated model of trade. The model's implications include the establishment of a positive link between plant efficiency and its mark-up of prices over costs, and hence an association of efficiency with measured productivity. Also, efficient plants are more likely to become exporters and consequently plants that export appear to be more productive. Numerical simulation of the model for reasonable parameter values matches data on U.S. manufacturing plants quite well.

The paper also examines the impact of changes in the global economy on plant entry, exit, and exporting as well as overall productivity and employment. A five-percent drop in geographic barriers between countries is seen to considerably reduce the number of operating plants in the U.S. However, this *globalization* also boosts exports of those who are competitive enough to survive. Raising geographic barriers to eliminate all trade increases the number of plants but has almost no impact on manufacturing employment due to the loss of export markets. Moreover, there is considerable job reshuffling to less productive plants which lowers productivity. The analysis reveals how changes in the global economy can create substantial reshuffling in production, and hence effects on aggregate productivity, even in a relatively closed economy like the U.S.

"Corruption and Decentralization of Infrastructure Delivery in Developing Countries"

Pranab Bardhan and Dilip Mookherjee
IED Discussion Paper 104, March 2000

A widely anticipated benefit of the decentralization of the provision of public services to local governments is that they enhance accountability of the delivery system. Centralized delivery systems are frequently characterized by substantial corruption and leakages owing to the inability of central governments to effectively monitor the performance of bureaucrats entrusted with local service delivery. Transferring authority over delivery to elected local governments allows dissatisfied citizens to vote against elected officials, thus inducing some accountability. The intuition that local needs are better served by decentralized mechanisms is borne out by cross-country empirical evidence. However, the effects of decentralization may be less benign if local democracy is subverted by powerful elites, local governments are financially constrained, or if local officials lack adequate technical expertise compared to their central counterparts. In this paper, Bardhan and Mookherjee develop an analytical framework that isolates two aspects of the prob-

lems associated with decentralization: limited accountability and financing problems faced by local governments. They contrast centralization with three alternative modes of financing revenues by local authorities entrusted with the task of delivery, ranging from full devolution of revenue raising authority, limited autonomy in the form of levy of user fees, to financing local governments entirely by fiscal grants from the center.

In a context where both national and local governments are vulnerable to capture by elites, the effects of decentralization on service volumes, efficiency and equity are shown to depend upon the manner in which expenditures on such programs are financed. In general, decentralization tends to expand the volume of the service delivered. However, such expansion may or may not represent efficiency gains, as it tends to be accompanied by overprovision of the service to local elites. Constraining financial authority of local governments limits such expansion. In order to assess the welfare effects of decentralization, a comparative analysis of the three financing mechanisms is undertaken. Bardhan and Mookherjee find that in general, user-fee-financed decentralization dominates centralization as well as local-tax-financed decentralization, from the standpoint of both efficiency and equity. The intuitive reason is that user-fee-financing combines enhanced accountability with restrictions on the ability of local governments to finance provision to elites by taxes on the less-well-to-do. The welfare comparison between user fees and central grants is more qualified: the former is more sensitive to local needs, while the latter is more effective against overprovision to wealthy users.

The central policy conclusion emerging from the paper is that the choice of financing mode is a key instrument in the design of decentralization initiatives. Vertically unbalanced patterns of decentralization that limit the volume of infrastructure services may actually be in the public interest.

"The Impact of Financial Crises on Labour Markets, Household Income and Poverty: A Review of Evidence"

Peter R. Fallon and Robert E.B. Lucas
IED Discussion Paper 103, March 2000

Recent years have witnessed a series of financial crises in a number of developing countries. Although these crises usually prove to be relatively short-lived, the associated drops in income have been substantial and perceptions of these declines have been particularly acute because of prior rapid growth in most cases. Concerns regarding the impact upon poverty and distributional issues both during a crisis and also over the longer run are therefore quite real. In their paper, Fallon and Lucas review evidence from East Asia, the Tequila crisis and Turkey concerning the impact of such crises on labor market conditions, poverty and inequality of incomes.

The predominant impact on labor market outcomes has been a fall in real wages. Indeed, cross-country evidence suggests a positive association between the depreciation of the local currency and the fall in real wage. The available evidence also suggests a trade-off between declining real wages and the decline in employment levels. Whereas employment levels were by and large unaffected, massive churning of the labor force has occurred as workers accepted lower pay in alternate jobs to maintain family incomes. In the aftermath of a crisis, living stan-

dards of landless agricultural laborers frequently worsened due to increasing food crop prices. These laborers also face increased competition from returning urban migrants. Some families managed to smooth their incomes partially by increasing labor force participation and increasing private transfers. However, except in Indonesia, consumption smoothing was not observed in the aggregate. Even in Indonesia, only those who were better off prior to the crisis managed to smooth consumption. Tightened monetary policy typically exacerbated the problem.

Fallon and Lucas also examine the potency of various poverty alleviation programs that arose in the aftermath of these crises. Most of these suffered from severe targeting problems due to the lack of regional correlation between pre-crisis poverty and additional poverty. Moreover, while public works programs have often proven cost-effective, they are usually hampered by eligibility criteria which preclude newly laid-off workers. The authors conclude that if poverty alleviation programs happen to be cost-effective, they are worth mounting in more normal times rather than incurring the start-up costs during the initial phases of a crisis.

"Job Stability in Developing and Developed Countries: Evidence from Colombia and the United States"

Julie Anderson Schaffner
IED Discussion Paper 102, November 1999

While a large empirical literature describes the determination of wages in developing country labor markets, very little is known about other dimensions of employment contracts, especially in urban labor markets. Richer information about employment contracts in these markets would seem especially valuable, given the likely importance of contract design for facilitating training and other modern employment practices, and for improving work incentives and labor productivity more generally. This paper begins to fill this void. It presents a systematic comparison of job stability for a developed and a developing country, first documenting that jobs are much shorter in the developing country, and then studying why long-lasting jobs are less prevalent in the developing country.

Schaffner compares both cross-section distributions of current job tenure and estimates of job retention probabilities between Colombia and the United States, and within Colombia before and after the major liberalization of job security legislation in 1991. She demonstrates that the typical male worker in Colombia has been on the job for a substantially shorter period than his American counterpart, and the typical job is much shorter in Colombia. A number of possible alternate explanations for these phenomena are shown unlikely to be relevant. For instance, current job tenures may appear shorter in Colombia owing to higher employment growth rates rather then differential job retention probabilities. Using two alternate methods to control for employment growth rates turns out to not change the basic conclusion. Similarly, cross-country differences in job length remain significant even after considering the effect of possibly counter-productive job security legislation prevalent in Colombia in the eighties, and/or differences in industrial structure (*e.g.*, the possibility that Colombia specializes more in production activities where long-lasting employment relationships are less important).

The evidence in the paper is consistent with the hypothesis that employers face greater costs of implementing long-term employment contracts or

the work organization practices that such contracts necessitate. This may explain why developing countries often exhibit higher rates of self-employment or employment in small enterprises, and lower labor productivity. As the author emphasizes, the evidence presented in this paper may motivate enrichment of theoretical models of cross-country growth rate differences by incorporating microeconomic and institutional obstacles to long-term growth and development.

"Heteroscedastic Sample Selection and Developing Country Wage Equations"

Julie Anderson Schaffner
IED Discussion Paper 101, June 1999

Appropriate strategies for harnessing manpower and developing human capital hinge upon accurate estimates of the returns to schooling. Econometric estimates of this crucial parameter are, however, subject to a number of statistical biases. One of the most important of these results from selectivity problems, wherein a significant fraction of the relevant population do not secure employment at all, and are thus excluded from datasets employed in estimation.

It has become standard practice to deal with potential selectivity bias in developing country wage equations by employing Heckman's two-step method or related techniques. This procedure may, however, produce misleading results if the statistical assumptions underlying this method are incorrect. In her paper, Schaffner demonstrates that taking a more flexible approach to the estimation of wage equations in endogenously selected samples is possible even in the context of easy-to-implement, parametric methods. This can be done by using model selection tests and sensitivity analysis to discern the empirical importance of departures from three standard assumptions: normality of the selection rule error, normality of the wage equation error, and homoscedasticity of the selection rule error. In particular, the paper provides an illuminating discussion of the economic reasons to suspect selection rule heteroscedasticity, in which individuals with more schooling are prone to larger prediction errors. For example, unobserved school quality and years of schooling might be expected to have interactive effects upon the propensity to be a wage earner, generating heteroscedasticity. She provides econometric reasons to believe that the non-linearities introduced by heteroscedasticity might aid identification.

In an application to urban Peru, homoscedasticity is strongly rejected in favour of more flexible alternatives. Allowing for the alternative hypothesis of heteroscedasticity causes estimates of key parameters to become more robust to changes in other statistical assumptions. Moreover, the paper demonstrates the importance of the more flexible approach to produce believable estimates of other parameters such as the covariation of selection rule and wage equation errors which describes the nature of labor market sorting.

"Credits, Crises, and Capital Controls: A Microeconomic Analysis"

Zvika Neeman and Gerhard O. Orosel
IED Discussion Paper 100, January 2000

Recent currency and financial crises in 'emerging market' developing countries have typically

been viewed in terms of policy failures in the debtor countries themselves. This paper considers an alternative perspective in which the problem may stem instead from lending policies followed by the international financial community.

The authors accordingly study a model where foreign banks finance local long-term projects by short-term credits denominated in foreign currency. The foreign banks face two kinds of risk: the macro-economic risk of a currency crisis, and the micro-economic risk of project failure. There are no bailout guarantees against either of these risks. Foreign banks move sequentially, obtain a private signal about the micro risk associated with the projects they consider financing, and observe the actions of all previous foreign banks. Neeman and Orosel analyze the equilibrium of this model and show that it is generally inefficient. In particular, for a wide range of parameter values, foreign banks provide too many credits too easily and thus generate an inefficiently high risk of a currency crisis. For other parameter values, they inefficiently provide no credits at all.

Neeman and Orosel subsequently demonstrate how the imposition of capital controls through taxes and subsidies on short-term foreign credit can improve the situation. Their analysis differs from other papers on currency crises in at least two respects: they do not assume that foreign banks enjoy bailout guarantees, and concentrate on foreign banks' prior incentives for providing credit rather than on their incentives to withdraw the credit provided once a crisis is anticipated. The paper is relevant to current debates concerning 'globalization', as it provides a clearly identified set of situations where imposing controls on short-term capital inflows can be beneficial, even in the absence of any policy failures within debtor countries or availability of bailout guarantees for foreign banks.

"Designing Stabilization Policy in a Monetary Union"

Russell Cooper and Hubert Kempf
IED Discussion Paper 99, January 2000

The desirability and design of monetary unions has been one of the most debated economic issues in recent years. Whereas the gains measured in the reduction of trading costs for consumers are welcome, there are fears that these may be small compared to the costs imposed by limitations on the scope of domestic stabilization policy introduced by a union because of delegation of monetary policy to a single central bank. According to Cooper and Kempf, the prevalent framework – while stressing many relevant issues – fails to emphasize that the institutional details of the design of a union are critical for its success.

The authors study a stylized two-country world economy and consider various designs of monetary union. Their major conclusion is that economic welfare under a union relative to that under a multi-currency world depends crucially on the commitment capabilities of the central bank, and on the ability of fiscal authorities to meet stabilization requirements via taxes. In particular, in cases where the bank can commit to policies that preclude strategic seignorage inflation by member countries (perhaps by *no bail-out* clauses as in the EMU), and domestic fiscal authorities have a sufficient number of policy instruments, a union enhances welfare. However, if the central bank is weak and is required to cover deficit spending by member countries, or if authorities lack sufficient instruments to tackle uncorrelated supply shocks, this conclusion is reversed.

The policy lessons of their analysis are as follows. Since commitment ability of the bank is an important variable, *fiscal pacts* that ease pres-

sures on the bank are welcome as is the adoption of rules by the bank that insulates its decisions from fiscal pressures generated by member countries. Second, as the reduction of misallocation of consumption is a major benefit of a union, it is important to identify whether the proposed member countries trade sufficiently large volumes with each other.

The study also sheds light on the variety of past experience with monetary unions around the world. For example, the obligation of the Russian Central Bank to cover the deficits of CIS member countries can be viewed as one of the root causes of the violent hyperinflation episodes of the nineties. This might even lead some countries to look for alternate means to a union, such as dollarization in Argentina.

"CONTRACTUAL CONSTRAINTS ON FIRM PERFORMANCE IN DEVELOPING COUNTRIES"

Dilip Mookherjee
IED Discussion Paper 98, December 1999

The past two decades have witnessed the growth of a vast literature that seeks to understand the rationale for a number of unique organizational practices in developing countries. A common theme running through this literature is that such institutions represent the outcome of trying to cope with diverse problems of information and trust encountered in running an enterprise in a developing country. These are typically rooted in moral hazard problems, and are frequently compounded by limited contract enforceability arising from financial constraints and weak legal systems.

This paper surveys the literature and emphasizes the main sources of contracting impediments, their implications for industrial competitiveness, productivity and growth rates, and more broadly, for capital flows and potential poverty traps. Three main problems are highlighted. First, the sources themselves: limited wealth of productive agents precludes the design of contracts with *high powered* incentives; inability to write complete long-term contracts implies that relevant dimensions of performance are not contractible; and contracting impediments are created by the lack of effective dispute resolution mechanisms. Second, the usual solutions to these problems which involve contractual payment of informational rents, reallocating property rights, or relying on reputational considerations, themselves exacerbate the problem by creating an institutional source of lack of industrial competitiveness. These are reflected in greater proneness to factor market imperfections. Third, the poor quality of infrastructural services raises the cost of supplying high quality output or services which are essential for international competitiveness.

As Mookherjee points out, this perspective helps reveal a variety of key structural determinants of industry performance in developing countries. These include wealth and income inequality, financial intermediaries, community networks, labor skill and human capital, quality and reliability of infrastructure provision, and the organization of supplier networks. In turn, this can explain the importance of distinct organizational forms that are observed in developing countries, such as sugar cooperatives in the Indian state of Maharashtra or emerging Vietnamese private firms that rely primarily on family connections. Finally, since factor market imperfections are difficult to tackle by deregulation measures alone, developing countries will soon be forced to confront the really difficult aspects of change in policy; *viz.*, improvements in human development, financial institutions and social capital.

"RELATIVE CAPTURE OF LOCAL AND CENTRAL GOVERNMENTS: AN ESSAY IN THE POLITICAL ECONOMY OF DECENTRALIZATION"

Pranab Bardhan and Dilip Mookherjee
IED Discussion Paper 97, November 1999

A common presumption running through discussions of decentralizing authority to local governments is that potential gains from greater accountability and sensitivity to local needs need to be traded off against the greater vulnerability of local governments to capture by local elites. Whether and when local governments are, indeed, more vulnerable to special interest capture is rarely addressed in existing literature. In this paper, Bardhan and Mookherjee construct a theoretical framework to address this question.

The authors study a model of electoral competition with lobbying by special interest groups, and voting behavior that is probabilistic, owing both to diversity of party loyalties and unpredictable swings in these across the electorate. A convenient feature of this model is that it enables a precise and simple identification of the degree of capture of any level of government, thereby allowing its determinants to be analyzed. The authors confirm the classic argument of James Madison that lobbying activity by the elite is more effective at the local level, owing to less daunting coordination problems, thus promoting greater capture of local governments. On the other hand, inter-district heterogeneity in political awareness may cause electoral competition to be weaker at the national level. Variations in socioeconomic inequality across regions may raise the value of campaign finance in national elections *vis-à-vis* local elections. Either of these factors could cause greater capture at the national level. In general, substantial heterogeneity in local capture may be expected across different regions. Political systems that ensure some form of power-sharing by different parties also tend to generate such heterogeneity, while reducing the scope of capture at the national level.

In conclusion, the authors stress the context- and system-specific nature of relative capture of local governance structures. This suggests the need to empirically investigate the extent of relative capture before pronouncing judgment on the prospects for any proposed scheme of political decentralization.

"LANGUAGE SKILL COMPLEMENTARITY: RETURNS TO IMMIGRANT LANGUAGE ACQUISITION"

Eli Berman, Kevin Lang and Erez Siniver
IED Discussion Paper 96, September 1999

Immigrants typically earn low wages on arrival but have faster wage growth than natives. A plausible explanation is that immigrants face a language barrier on arrival but gradually learn the host country language, making them more productive. Most empirical studies of the effect of language on earnings rely on cross-sectional regression analysis of an earnings function that includes language fluency in the set of explanatory variables. This approach might overstate the value of fluency because fluency might simply be a proxy for innate ability.

In this study, Berman, Lang and Siniver use unique data on recent Soviet immigrants to Israel. These data contain retrospective information on fluency and earnings, allowing ability bias to be treated by studying the effect of changes in fluency on changes in earnings, holding ability constant. The

data also allow separate estimates of the effect of fluency on earnings for different skill groups. Once ability bias is controlled for, it turns out that fluency is only of economic value for relatively skilled workers. Technicians and engineers have a large return to fluency in Hebrew, which explains about half of their unusually fast wage growth in the first few years after migration. On the other hand, construction workers and gas station attendants have little or no economic return to fluency.

The authors conclude by pointing out that language should be understood as a proxy for a range of host-country skills such as mastery of local social customs. Their estimates probably underestimate the value of language as they do not include the effect of language in improving income-enhancing job-shopping. Further, they understate the full value of fluency for both immigrants and natives because of the public good nature of language.

"Why Dowries?"

Maristella Botticini and Aloysius Siow
IED Discussion Paper 95, June 1999

The nature of wealth transfers by parents to their off-spring has remained a central concern in most social science disciplines. An especially striking and historically important form of such transfers is the institution of dowry. Of particular interest is the question of the existence and perpetuation of this institutional arrangement, since dowries are generally regarded to be costly to the family. Various explanations have been proposed in the literature for the prevalence of dowries which link it to social custom and status, bride-insurance purposes, the economic environment, and family and demographic structure.

In their paper, Botticini and Siow view dowries primarily as a wealth transfer to daughters by parents. Their main finding is that dowries provide a mechanism to balance incentives within the family: they serve as a solution to a *free riding* problem especially in *virilocal* societies where daughters leave their parents' home after marriage and the male off-spring stay with their parents and contribute thereafter to family wealth. In such societies, altruistic parents concerned about their daughters' post-marriage wealth will prefer to transfer wealth to daughters using dowries rather than bequests, as the latter distort production incentives within the family. Their theory predicts that factors such as the development of labor markets with young men seeking employment outside of the family, or the decline of the joint family system, will cause families to switch from dowries to bequests.

Botticini and Siow test their theory against a rich data set of marriage contracts in notarial deeds matched with the *Florentine Castasto* (census) of 1427 for the Tuscan town of Cortona between 1415 and 1436. They find empirical support for their model: in particular, the lack of *inter-vivos* income sharing in dowry contracts, the small number of bequests left to daughters, and the effect of family demographics on dowry values.

Congratulations!

Maristella Botticini won a John M. Olin Junior Faculty Fellowship for the next year, and a CAREER NSF grant for the next four years.

"Financial Fragility in a Monetary Economy: Positive Implications and Policy Prescriptions"

Russell Cooper and Dean Corbae
IED Discussion Paper 94, April 1999

Several attempts have been made to both trace the genesis of financial collapses and understand the links between a crisis in the financial sector and the consequent impact on real variables such as reductions in real output, consumption, and employment. Whereas models attempting a fundamentals-driven explanation are relatively widespread, the real effects of shifts in expectations are much less understood. In this paper, Cooper and Corbae analyze financial collapses such as the U.S. Great Depression from the perspective of a monetary model with multiple equilibria. Their aim is to provide a perspective on this episode as well as contribute to the open debate on the nature of appropriate policy interventions.

Financial fragility arises in their model due to increasing returns in the process of financial intermediation: it is embedded in the dependence of this process on the beliefs of agents. Hence, fluctuations in confidence lead to variations in the efficiency of intermediation; the resulting variation in the thickness of the loan market leads to relatively large movements in output and employment. The predictions of the model closely match changes in some financial and real variables such as the currency/deposit ratio, ex-post real interest rates, deflation, employment, and production over the Great Depression. In contrast to standard models of monetary economies, the model also generates the sizable swings in velocity of circulation observed in practice.

The paper goes on to analyze government stabilization policies that would avoid financial fragility. A striking result is that a mild monetary expansion in a time of pessimism, as suggested by Friedman and Schwartz, is sufficient to overcome strategic uncertainty and thus eliminate the low level equilibrium.

Student Presentations

Graduate students from the Department of Economics presented papers at conferences as follows:

Priyodarshi Banerjee - "Community Enforcement with Endogenous Information" at the Southeast Theory Conference in Washington, D.C.

Christopher House - "Monetary Policy and Credit Market Failure" at the Midwest Macroeconomics Conference in Iowa City, IA.

Sumon Majumdar - "The Pricing of Job Characteristics When Markets Do Not Clear: Theory and Policy Implications" (joint with Kevin Lang) at the 54th European Meeting of the Econometric Society in Santiago de Compostela, Spain.

Jonathan Willis - "Estimation of Adjustment Costs in a Model of State-Dependent Pricing" at the Midwest Macroeconomics Conference in Iowa City, IA.

2000 Rosenstein-Rodan Prize Winner Announced

The Institute for Economic Development is pleased to announce that the year 2000 Rosenstein-Rodan Prize has been awarded to Marialuz Moreno-Badia for her paper, "Confidence Crises Revisited: Is Short-Term Debt a Curse or a Blessing?" (see page 13 for more details). The prize, in memory of Professor Paul Rosenstein-Rodan, is awarded annually to graduate students in economics submitting the best research paper in the field of development economics.

Other Faculty Research

"Health Insurance in India: Prognosis and Prospectus"

Randall P. Ellis, Moneer Alam, Indrani Gupta

Economic and Political Weekly, January 22, 2000

Several independent sources have recently documented serious problems concerning India's health care system with respect to the accessibility, efficiency and quality of the health delivery system. There is mounting evidence that the level of health care spending in India – currently at over six percent of total GDP – is considerably higher than in many other developing countries. While most of the discussion in this context has centered around financial constraints on the public sector, the present paper by Ellis, Alam and Gupta — that grew out of Ellis' one semester visit to the Institute of Economic Growth, New Delhi — is devoted to the enormous financial burden borne by individuals in the form of out-of-pocket expenses to pay for curative health care. These excessive financial burdens on households arise for a variety of reasons. One of the most important is the underfunded public health care system which suffers from quality and access problems, forcing consumers to pursue alternate expensive treatments from private providers. The authors contend that these financial burdens are compounded due to lack of adequate insurance for health care.

This paper examines a broad range of insurance plans, including private insurance as well as free public provision and reimbursement. It goes on to analyze the strengths and weaknesses of the system. These include lack of incentives for cost optimization which causes individuals to make more visits to the clinic than are necessary; inadequate coverage of out-patient expenses by the General Insurance Corporation (GIC), the major health insurer in India; exclusion of a large number of chronic conditions such as treatment costs for HIV from coverage; and neglect of unorganized sector employees from the Mediclaim structure. Finally, the paper develops a prospectus for improvements to access and quality at affordable rates in the future. In light of the preceding analysis, this includes limiting exclusions for pre-existing medical conditions, greater monitoring of fraud and excess fees, and reform of the excessively high premium structure. At the same time, the authors stress the need for more stringent regulation of private health care where a complete lack of such regulation has meant a lack of minimum standards for medical practice. On the administrative front, the paper recommends greater efficiency in the processing of claims: for instance, by establishing and regulating time schedules so as to reduce uncertainty concerning the time frame within which reimbursement will take place.

"Startup Factories: High Performance Organizations and Regional Advantage"

Peter B. Doeringer, David G. Terkla, Christine Evans-Klock

Book Manuscript

Many economists attribute a part of the strong performance of the Japanese economy throughout much of the post-war period to a unique set of management practices that increase skills and productivity, resolve principal-agent problems, and facilitate the coordination of "lean" production and just-in-time supply capabilities. Case studies of U.S. companies that have adopted such practices have typically confirmed their efficiency benefits as measured by factors such as quality improvement and sales growth. Nevertheless, many U.S. companies continue to rely on traditional methods of hierarchy and control to improve performance.

Startup Factories examines why diffusion of Japanese-style efficiency practices has been so slow in the United States. Using a combination of in-depth field research with a sample of 48 new branch plants of large manufacturing companies and a unique national panel database of startup factories compiled from Dun and Bradstreet records, the study finds that the Japanese workplace model is rarely adopted intact. Instead, it is blended with more traditional U.S. workplace practices.

The most successful hybrid of Japanese and U.S. practices captures four types of complementarities. First are those that come from adopting a group of Japanese practices that includes intensive training, widespread opportunities for employee participation in workplace decisions, teamwork, and a focus on total quality management. Second is the integration of these practices into a larger system of lean operations management and modern logistics management. The third, which represents a significant departure from the Japanese workplace model, involves making pay contingent on performance. Startups that incorporate these three sets of practices are then able to tap a set of external complementarities that are found in locations where workforce attitudes and governmental policies favor problem-resolution and mutual gain sharing over conflict.

The effectiveness of these efficiency practices, however is limited to certain types of firms. The study shows that these practices are most frequently adopted by firms where production processes and quality control are worker controlled, where products have high value-added or are custom and batch produced, and where just-in-time supplies are demanded by customers. Even where the objective circumstances point to efficiency gains from adopting such practices, however, the field research shows that there are also obstacles rooted in American management traditions and the reluctance of American managers to share authority and control with its workforce.

Rosenstein-Rodan Essay Prize

"*Confidence Crises Revisited: Is Short-Term Debt a Curse or a Blessing?*"

Marialuz Moreno-Badia

Recent episodes of financial turmoil like the Mexican crisis in 1994-95 or the Brazilian crisis in January 1999 have given impetus to a flourishing literature on confidence crises. In the context of sovereign debt, confidence crises occur when foreign investors fear that the government will be unable to honor its commitments on bonds, leading to a self-fulfilling default. A number of papers have analyzed whether the danger of a confidence crisis can be reduced by acting on the maturity structure of public debt. For example, according to Alesina, *et. al.* (1990); Giavazzi and Pagano (1990) and Cole and Kehoe (1996), a crisis of confidence in the public debt can be self-fulfilling but it is less likely to occur if the public debt has a long and balanced maturity structure.

However, if short-term debt is the main cause of confidence crises, why is it that governments insist on issuing short-term debt? A possible answer is that it is cheaper to borrow short. Interestingly however, under a confidence crisis, short-term debt can be very expensive from a social point of view. This paper analyzes the optimal maturity structure of public debt when the government tries to simultaneously minimize the expected cost of debt servicing and the vulnerability to confidence crisis. It examines a three period model where taxes are distorting, and the government has an incentive to smooth taxes over time by using the maturity structure of debt. An important feature of the model is the existence of exogenous uncertainty in the form of political elections in a two-party system.

The model permits an evaluation of the optimal maturity structure of debt given that confidence crises are possible. In particular, if the likelihood of a confidence crisis is high enough, the optimal maturity structure of debt will shorten beyond perfect tax smoothing and avoid debt crises. Otherwise, the optimal maturity structure may shorten but confidence crises could still happen. In contrast with most of the literature on confidence crises, the model suggests that short-term debt can be a blessing rather than a curse. In that case, a policy that lengthens the maturity structure of debt could be a problem.

IED Research in Progress

The following paragraphs summarize the projects and development-related research being conducted by Institute affiliates from the Economics Department at Boston University.

Eli Berman's current research touches on development from a number of unconventional angles. He is investigating how manufacturing technologies absorbed by developing countries have increased productivity and demand for education, repeating the process that the developed world has undergone since the late 1970s. Another project explores the effect of radical Islam on fertility and how subsidies to radical religious groups can reverse fertility transitions. Other work includes an investigation (with Zaur Rzakhanov) of whether immigrants move for the sake of their children, and what affect the resulting self-selection has on fertility. In collaboration with **Kevin Lang** and Erez Siniver he is also studying the complementarity of skills and language in the labor productivity of immigrants.

Maristella Botticini's recent work concerns the determinants of dowries, sex ratios, intergenerational transfers, and human capital. "Sex Ratios in Renaissance Florence: Missing Women or Too Many Men?" joint with Aldo Rustichini, seeks to explain the puzzling sex ratio (120 men per 100 women) in early Renaissance Florence, which suggests a "missing women" problem common to many contemporary developing countries. The idea is to disentangle two possible factors that can explain this bias: differential care for male and female children, or a rational stopping rule according to which parents stop producing children when they reach the "optimal" number of sons. "Competitive Tax Farming" joint with **Zvika Neeman**, examines conditions under which a system of revenue collection through competitive bidding for the position of tax farmers can deliver optimal outcomes. They test their model by using historical evidence from the Roman Empire, medieval Italy and England, and early modern France. "Human Capital and Jewish Economic History" joint work with **Zvi Eckstein**, aims to explain the successful economic performance of Jews in many places and times by applying a human capital approach. They are constructing a large dataset on the economic and social profile of Jewish communites in Europe and the Middle East from ancient times to 1900, and plan to compare their size, wealth, and human capital with the population of the cities where they resided.

Following the completion of his book, "Startup Factories: High Performance Organizations and Regional Advantage", **Peter Doeringer** is extending his analysis of high performance workplace organization to Europe, where he is working with a French team on a comparative study of France, the UK, and the United States. He is also continuing a second project with a group of European colleagues on the economic organization of quick response supply networks in the garment industries of France, England, and the United States. Doeringer served during the past two years as the Research Director for the Commonwealth of Massachusetts' Blue Ribbon Commission on Older Workers, which just released a major report outlining policies for assisting older workers and promoting economic growth in Massachusetts.

Jonathan Eaton and **Samuel Kortum** continue to collaborate on a series of studies concerning technology in the global economy. Their research uses quantitative models to explain differences

across countries in productivity, research intensity, patented inventions, and export patterns. The models can help assess issues such as the potential gains from promoting innovation or the winners and losers from lowering trade barriers. In IED Discussion Paper 105 (see pages 2-3 for a summary) Eaton and Kortum (with coauthors Andrew Bernard and J. Bradford Jensen) explore the power of their model to explain plant-level facts about the productivity and exporting behavior of U.S. producers. Using this model fit to actual world trade patterns and the behavior of U.S. plants, they are able to quantify the amount of plant closings and job turnover generated by changes in the global economy. Eaton and Kortum are now working on a new research project examining trade in capital goods. A particular goal is to assess the role of this trade in spreading the benefits of new technology from developed to developing countries.

Randall Ellis' recent research focuses on how payments systems affect the health delivery systems, a topic of major interest in the U.S. and abroad. Ellis helped develop the payment formula that is being used by the U.S. Medicare program to pay managed care health plans as of January 2000. An acknowledged expert on the topic of risk adjustment, he recently coauthored the chapter on this subject which appeared in the North-Holland ***Handbook of Health Economics***. The chapter provides an analytical framework for assessing different risk adjustment systems and reviews the experience of ten countries in implementing risk adjustment in their health systems. His most recent published articles on international topics have examined health insurance in India (see the summary on page 12), and the demand for health services in Niger.

Robert Lucas' book ***Restructuring the Malaysian Economy: Development and Human Resources***, with Donald Verry, was published by MacMillan Press in December 1999. He also completed IED Discussion Paper 103 on the impacts of the financial crises of the 1990s on labor markets, household incomes and poverty (see pages 4-5 for a summary of this paper). Another paper comparing small, medium and large manufacturing plant air pollution in Mexico and Brazil shows that the concentration of higher income households in Brazil is such that the wealthy are more exposed to air pollution and most of this pollution derives from large plants. This proves to be the case despite the fact that small plants are the more intensive polluters and that small plants are concentrated in lower income areas. Lucas is continuing his work on migration, with a recent presentation at the World Bank and a new paper commissioned by a journal. Lucas is also starting new work on training schemes in South Africa.

Dilip Mookherjee is conducting collaborative research with Pranab Bardhan on the effects of fiscal decentralization on accountability of governments in developing countries (see summaries of Discussion Papers 97 and 104 on pages 9 and 3, respectively). They are now complementing their theoretical analyses with empirical analysis of the effects of decentralized governance in the state of West Bengal, India. In collaboration with Debraj Ray, he has recently edited a forthcoming volume of readings in the theory of economic development which will be published by Blackwell in Fall 2000. Mookherjee and Ray are also engaged in theoretical research on the causes and effects of inequality in wealth and human capital. Other ongoing projects include the effect of ownership on performance of Indian sugar firms (with Sanghamitra Das), and factors affecting use of common forests in sub-Himalayan regions of India and Nepal (with Jean-Marie Baland, Pranab Bardhan, Sanghamitra Das, and Rinki Sarkar).

Boston University
The Institute for Economic Development
Research Review
264 Bay State Road
Boston, MA 02215

Nonprofit
US postage
paid
Boston, MA
permit
no 1839

IED Affiliated Faculty

Eli Berman
Maristella Botticini
Christophe Chamley
Russell Cooper
Peter Doeringer
Jonathan Eaton
Zvi Eckstein
Randall Ellis
Simon Gilchrist
John Harris
Leroy Jones
Samuel Kortum
Laurence Kotlikoff
Kevin Lang
Glenn Loury
Robert Lucas
Michael Manove
Dilip Mookherjee
Robert Rosenthal
Pankaj Tandon
Andrew Weiss

Professors Emeriti:

Shane Hunt
Gustav Papanek
Paul Streeten

The *Research Review* is published annually by the Institute for Economic Development at Boston University. The *Review* is also posted on the IED website at *http://econ.bu.edu/ied.*

Editors: Margaret Chapman, Administrative Assistant; Dilip Mookherjee, Director; Jay Surti.

Copies of IED discussion papers may be ordered at a subscription rate of $25.00 for ten issues, or $4.00 per individual paper. Please contact our office for further information. Some papers can be downloaded as PDF files on the IED website.

The IED welcomes questions or comments: email ied@bu.edu, phone 617/353-4030, fax 617/353-4143.

Boston University's policies provide for equal opportunity and affirmative action in employment and admission to all programs of the University.