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The Institute for Economic Development (IED) is a research center within Boston University's Department of Economics focusing on the economic problems of developing countries and related fields of finance, trade, foreign investment, health, education, political economy, economic history and institutions.

Breaking the Net: Family Structure and Street Children in Zambia

By Francesco Strobbe, Claudia Olivetti and Mireille Jacobson
Discussion Paper 220

Studies conducted in 1991 and 2004 estimate that the number of street children in Zambia more than doubled over the time period, growing from approximately 35,000 to 75,000. As a percentage of the Zambian population under the age of 14, these figures represent an increase in the share of street children from roughly 0.9 percent in 1991 to 1.6 in 2004. This paper, drawing on original fieldwork in the slums surrounding the city of Ndola in Northern Zambia, is the first study to collect information on street children's families of origin and their neighbors in order to identify links between family structure and the growing phenomenon of street children.

The authors conducted interviews with 43 families a partner NGO identified as having originated street children. The families lived in the three slums that the NGO reported had the highest concentration of families originating street children. The authors also interviewed families with children who were neighbors of the originating families, but had no related street children.

Analyzing family characteristics correlated with originating a street child, the authors find that families with a male household head who is in poor health are more likely to originate street children. The composition of the extended family network also seems to matter: a higher number of paternal sisters and the presence of maternal grandparents are associated with a lower probability of a family's originating street children. A younger composition of children in the household and a higher share of girls in the household are both associated with a lower probability that any child from the family ends up on the street. The relationship of a child to the household also affects the likelihood that he or she ends up on the street: nephews, stepchildren and household heads' siblings are less likely to end up on the street compared to natural sons and daughters, suggesting as a possible interpretation that, when an extended family accepts nephews and stepchildren, it is the family's intention to keep and protect the child. Perhaps surprisingly, the education level, age and employment status of the male head of household have little impact on the likelihood of originating a street child.

Inter-Generational Income Immobility in Finland: Supplementary Results

By Robert E.B. Lucas and Sari Pekkala Kerr
Discussion Paper 221

Two distinct explanations have been postulated for the commonly observed, positive correlation between incomes of children and those of their parents. One hypothesis rests upon the inter-generational transmission, either genetically or through the home environment, of unobserved earning abilities. The other approach emphasizes credit constraints, limiting parents' investments in the human capital of their children. Parents could face binding constraints in their ability to borrow against either their children's future earnings or against their own.

In "Inter-Generational Income Immobility in Finland: Contrasting Roles for Parental Earnings and Family Income," the authors of this paper estimate a model nesting both intergenerational transmission of earning ability and credit constraints. The authors use a remarkable, and largely unexplored, panel dataset encompassing the entire Finnish population from 1970 to 1999. In that paper, the authors find any transmission from parental earnings to those of their children to be very weak in the Finnish data, while the transmission from family incomes to earnings of both sons and daughters is significantly and substantially larger. In Finland, differences between earnings and incomes are largely due to government transfers.

The income available to parents during the phase when their children are passing through school is found to have an additional effect on the future earnings of both sons and daughters. The influence of permanent income is consistent with constraints on the capacity of parents to borrow against future incomes of their children; the additional influence of family income during the child's early life is consistent with constraints on parents' ability to raise credit against their own subsequent incomes. The authors note that, overall, intergenerational transmission is not obviously lower than some estimates obtained outside of the Nordic region, including in the UK and US and conclude that, despite Finland's well-developed welfare state, persistence in economic status across generations is much higher than previously thought.

The supplemental results presented in this paper show that the significant inter-generational transmission from parents' family income to earnings of their sons and daughters is robust to a range of permutations. The estimated elasticity of transmission increases significantly the more observations are available on family income and it proves even greater if permanent income is estimated as a time-invariant family-specific effect, net of statistical controls, instead of as its family-specific mean. The elasticity is fairly insensitive to alternative definitions of family income when parents separate and to exclusion of earnings related to maternity, unemployment benefits, and retirement. The elasticity is estimated to increase if zero-earning observations of sons and daughters are incorporated because, although higher income families' children are more likely not to work while continuing their education, this effect is outweighed by the propensity of sons and daughters from lower income families to be unemployed or to drop out of the labor force.

Good Rankings Are Bad - Why Reliable Rankings Can Hurt Consumers

By Laurent Bouton and Georg Kirchsteiger

Discussion Paper 222

During the last 20 years, rankings have become increasingly popular. While restaurants and hotels have been ranked for a long time, relatively new rankings cover study programs, wine, health insurance, health care providers, and cars. Most existing scientific research on rankings investigates the quality of rankings based on the implicit assumption that accurate rankings are good for welfare- more information should not hurt. If rankings were only to be used in individual decision problems, better information could indeed never hurt.

However, in many markets where rankings play a role, agents' choices are not adequately described as individual decision problems. Some of these markets are characterized by consumption externalities. For example, students learn from their peers and the network generated at school is crucial for future professional success. Furthermore, in some markets, prices are not perfectly flexible, leading to rationing when firms have capacity constraints. A prototypical example is again study programs where good programs are typically oversubscribed and hence schools choose among applicants. Finally, even in markets with fully flexible prices and without externalities, rankings might have negative welfare impacts if the existence of a ranking increases the market power of firms.

To analyze the effect of rankings in markets featuring consumption externalities, rationing, and market power, the authors use a framework with two types of goods that differ in price and quality. Initially, it is not known which good is the good one. There are also two types of consumers who differ in their appreciation for the goods and in the externalities they inflict on other consumers of the same good.

The authors show that for fixed prices, without consumption externalities or firm capacity constraints, introducing a ranking leaves all consumers at least as well off and can make some consumers better off. In markets with either externalities or capacity constraints, a ranking may lead to an ex-ante Pareto deterioration - before the results of the ranking are known, the expected utility of both types of consumers is strictly lower with than without the ranking. The harmful effects are more likely the more important consumption externalities are and the more random the firms' rationing procedure.

Finally, with flexible prices, the existence of a ranking can hurt consumers even without externalities or capacity constraints. Rankings increase product differentiation, which can strengthen the individual producers' market power.

When all the Good Men are Gone: Sex Ratio and Domestic Violence in Post-Genocide Rwanda

By Giulia La Mattina

Discussion Paper 223

In 1994, between April 6 and July 17, about 800,000 of Rwanda's population of seven million were killed in a genocide. More men were killed than women and the perpetrators, many of whom later fled to neighboring countries, were also disproportionally male. As a result, Rwanda's population after the genocide was 70 percent female. In addition to the decline in the size of the pool of potential husbands for women of marriageable age, the average quality of potential husbands decreased in quality, since more educated men were more likely to be killed. This paper investigates the effects of these changes in Rwandan marriage markets on the quality of women's spousal matches after the genocide.

The author examines the relationship between marriage market changes and spousal quality using a model where women choose to accept or reject marriage proposals that arrive randomly at a rate determined by the number of men in the population. The model predicts that the decrease in the arrival rate of marriage proposals caused by the relative drop in the male population and the decline in the overall quality of the male population led women to accept marriage proposals after the genocide that they would not have accepted prior to the genocide. In addition, individual exposure to violence may have made women averse to remaining single and, again, lead them to accept proposals they would previously have rejected.

The paper combines data from the 1991 and 2002 Rwandan censuses and the 2005 Rwandan Demographic and Health Survey. The author primarily measures match quality by a married woman's response to the question of whether she has ever experienced intimate partner violence on the Demographic and Health Survey. The results indicate that women who married after the genocide in provinces where women outnumber men more as a consequence of the killings are more likely to have been the victims of domestic violence, consistent with the idea that these women accepted worse-quality spousal matches due to the decrease in size and average quality of the population of marriageable men. The results are robust to different measures of spousal match quality and indicate that, given the negative effect of intimate partner violence on the health of women and children, there may be long-lasting consequences of the genocide beyond the generation directly affected.

Intermediated Loans: A New Approach to Microfinance

By Pushkar Maitra, Sandip Mitra, Dilip Mookherjee, Alberto Motta and Sujata Visaria

Discussion Paper 224

Over the last two decades, microfinance has been viewed as a panacea for all ills faced by credit markets in developing countries. However, despite the rapid growth in outreach by microfinance institutions (MFIs), financial inclusion remains far from universal and a large proportion of the world's poor are still effectively excluded from the credit market. In particular, microfinance has not succeeded in financing agriculture owing to rigid repayment schedules and lack of tolerance for risk-taking. Other problems for microfinance take-up in agricultural settings include the heavy monitoring and administration requirements imposed on borrowers in the classic joint liability model most MFIs employ when lending to persons without collateral.

This paper answers the following question: is it possible to design a more flexible system of microfinance that targets smallholder agriculture, without requiring collateral and without endangering financial sustainability? The authors design and experimentally implement and evaluate an approach they call Agent Intermediated Lending (AIL), which leverages the information individuals within the local community have concerning creditworthiness of borrowers and the ability of those same individuals to impose sanctions on non-performers. Under AIL, an MFI appoints local intermediaries (traders, lenders or local government representatives) to help select borrowers eligible for individual liability loans. The loans are of longer duration than standard microfinance loans and are designed to help finance agricultural working capital needs. Intermediaries are incentivized via commissions based on loan repayments.

The randomized evaluation tests two versions of AIL: TRAIL, where local traders or lenders are appointed as loan intermediaries, and GRAIL, where the local government appoints intermediaries. The evaluation took place in 72 villages in West Bengal, India, with group-based joint liability loans serving as the control group. The authors develop a model which extends earlier work on the value of local information in credit markets to generate predictions of the results an effective AIL scheme should generate in practice.

Empirically, the authors find that TRAIL is effective. TRAIL agents recommend safe borrowers coming from among their own clients or those about whom they have better information through past interactions and/or networks based in caste or religion. There is no evidence of collusion between agents and clients. The results also confirm model predictions that TRAIL and GRAIL agents select households with intermediate landholdings, while selection into group-based lending is biased in favor of low landholdings. TRAIL achieved the highest repayment rates, exceeding 95%, significantly higher than under group-based lending. All three approaches experienced similar take-up rates, exceeding 80%. Discussion of relative impacts on borrower cultivation, incomes and assets is deferred to subsequent papers since the experiment is still ongoing.

Land Acquisition and Compensation in Singur: What Really Happened?

By Maitreesh Ghatak, Sandip Mitra, Dilip Mookherjee and Anusha Nath
Discussion Paper 225

In the second half of 2006, the government of the Indian state of West Bengal acquired 997 acres of prime agricultural land in the area known as Singur to make way for the construction of an automobile factory. The government used its power of eminent domain to acquire the land, offering compensation to households who would be displaced, as required by law. The local community resisted, leading the government to improve the terms of compensation, which some households accepted while others continued to protest. Local outbreaks of violence occurred and, two years later, the auto manufacturer withdrew from West Bengal. Disputes over compensation of rural communities that are displaced for the purpose of industrialization have not been uncommon in recent times, arising in other parts of India as well as in Sub-Saharan Africa, Latin America, Central Asia and Southeast Asia.

Using the results of a household survey conducted by the authors in the six villages where the government acquired land and six neighboring villages not subject to any land acquisition, the paper lays out the facts of the Singur experience and makes suggestions for how policy should be conducted in similar environments. The paper addresses the inadequacy of compensation for land acquisition, and its subsequent effect on decisions taken by owners to accept the compensation, as well as on their income and assets. Finally, the paper explores the distribution of household preferences for different forms of compensation.

The authors find that average compensations offered were close to the reported market valuations of land, but owners of high-grade multi-cropped (Sona) lands were under-compensated, which balanced over-compensation of low-grade mono-cropped (Sali) lands. This occurred owing to misclassification of most Sona land as Sali land in the official land records, which dated from the colonial period and did not take into account subsequent land improvements. Under-compensation relative to market value significantly raised the likelihood of rejecting the government's compensation offer. Occupational skills and financial considerations additionally played a role, as those relying more on agriculture as a source of income, those with large numbers of adults in the household and those leasing out their land were more likely to reject.

Land acquisition significantly reduced incomes of owner cultivator and tenant households, despite their efforts to increase incomes from other sources. Agricultural workers were more adversely affected relative to non-agricultural workers, while the average impact on workers as a whole was insignificant. Adverse wealth effects associated with under-compensation significantly lowered household accumulation of consumer durables. With regard to the form of compensation, most households expressed preferences for non-cash compensation, with diverse preferences across different forms of non-cash compensation depending on occupation and time preferences.

Based on the results, the authors argue that policymakers should attempt to elicit residents' land values, possibly using auction-based methods, and should offer a menu of alternative compensation packages.

Educational Signaling, Credit Constraints and Inequality Dynamics

By Marcello D'Amato and Dilip Mookherjee
Discussion Paper 226

Discussions of education policy in both developed and developing countries generally presume there is a role for government interventions to encourage schooling, especially among poor households, on efficiency grounds as well as the need to promote occupational mobility and equality of opportunity. Yet there are few theoretical models that clarify the welfare arguments for educational policy interventions, or the source of underlying divergences between social and market rates of return. Social and market rates of return to education may differ due to workers using education as a way of signaling unobservable ability to employers, but such signaling implies that the social rate of return is lower than the market rate. This is inconsistent with the notion that government interventions to promote schooling would enhance efficiency and finds little support in the empirical literature.

This paper considers the implications of the coexistence of missing credit markets, which restrict investment in education, and unobserved ability, which generates signaling. The authors develop a model with overlapping generations where parents are altruistically motivated and pay for their children's education, owing to a lack of borrowing opportunities. Agents differ in family income and ability. Education and ability are assumed to matter only in the modern sector, not in the traditional sector where wages are exogenously fixed at a low level. Agents need an education to enter the modern sector, where their productivity depends on their ability.

Competitive equilibrium dynamics determine the evolution of education and skill premia in wages across successive generations. The first phase of development is marked by rising levels of education as well as quality of workers in the modern sector, owing to faster entry of children from poor families in the traditional sector with abilities higher than incumbents. During this phase the social rate of return to education can be shown to exceed the private return. As development proceeds, the quality of marginal entrants declines; eventually it falls below the ability of incumbents. From that point onwards the average quality of workers in the modern sector (and hence the education premium in wages) falls. This pattern is consistent with the inverted-U-shaped evolution of wage inequality in the 19th century UK and US.

Turning to the question of education policy, the authors show that, irrespective of the phase of development the economy is in, there is always scope for an educational intervention that makes all agents better off. The mechanism the authors design involves provision of schooling by the government to the most able children from the traditional sector who would not be educated under laissez faire. It is funded by bonds contributed by rich parents of the least able children to receive an education under laissez faire. These parents therefore substitute educational provision by financial bequests. The result is a change in the composition of the educated labor force, with children from poorer backgrounds with superior abilities displacing those from richer backgrounds of lower ability.

Firms' Heterogeneity and Incomplete Pass-Through

By Stefania Garetto

Discussion Paper 227

A large body of empirical work documents the fact that prices of traded goods typically change by a smaller proportion than the real exchange rates between the trading countries, a phenomenon known as incomplete pass-through. The wedge between export prices and domestic prices appears also to depend on the countries involved in the trade relationship, with exporters charging different prices to different export markets, referred to as pricing-to-market. While the existence of incomplete pass-through has received substantial attention in the literature, there is little work on how the extent of pass-through and pricing-to-market varies across firms in a country.

This paper presents a two-country model of trade and international price setting where firms differ in their cost structures and the market for each good has the characteristics of an international oligopoly with imperfect information. National markets are segmented and firms set their prices by taking into account the optimal responses of their foreign competitors but do not observe their competitors' cost structures. The author shows that for a wide range of parameterizations, firms' strategic behavior generates residual demands with an elasticity that is increasing in the price charged and hence results in incomplete pass-through of cost changes into prices and pricing-to-market of different degrees depending on firm size.

Firms of intermediate size, who are also of intermediate productivity in the model, take into consideration their competitors' optimal responses and, following a cost shock, increase prices only partially and shrink their mark-ups to avoid losing market share to their competitors. The largest firms, who are the most productive, don't fear external competition and are the lowest price sellers and, therefore, their pricing decisions are not characterized by any strategic considerations. Similarly, the smallest, least productive firms have tiny mark-ups, hence no room for absorbing cost increases through mark-up reductions, and pass most of their cost changes into changes in prices. The same reasoning implies similar firm-level variation in pricing-to-market behavior. Firms charge different prices and different mark-ups in different countries, depending on demand characteristics, the extent of competition, trade barriers, and so on.

The model also generates the novel prediction that the prices of goods sold domestically increase following an exchange rate depreciation. A depreciation makes foreign firms less competitive, so import prices increase. As a result, competition in the home market is less fierce and domestic firms can charge higher mark-ups than before the depreciation, since the threat of being undercut by foreign competitors is less severe.

The author tests the predictions of the model using a panel data set of car prices in five European markets. The estimates consistently confirm the models predictions linking pass-through and size and the predicted effect of pass-through on domestic prices and provide partial support for the predictions about pricing-to-market.

White Suburbanization and African-American Home Ownership, 1940-1980

By Leah Platt Boustan and Robert A. Margo
Discussion Paper 228

In 1940, only 21 percent of black households lived in owner-occupied housing. By 1980, 58 percent of black households owned their home, with most of the increase occurring in central cities. Approximately three quarters of the rise in black homeownership from 1940 to 1980 occurred by 1970, well before the federal effort to combat racial discrimination in housing markets could have had much effect. The authors of this paper explore how black homeownership increased so dramatically from 1940 to 1980, focusing on the relationship between white departures from the central city and black homeownership. As the black population grew over time, the geographic boundaries of black neighborhoods encroached upon existing white areas, leading many white households to leave these boundary neighborhoods, often for the suburbs. As white households departed, the demand for - and hence the prices of - housing units in these areas fell. Some of these homes were purchased and occupied by black households.

The authors estimate the relationship between black homeownership in the central city and white suburbanization using both aggregate household counts by city and decade for 1940 and 1980 and household-level Census records for 1940 and 1980. Linear regressions controlling for time-invariant metropolitan area characteristics and countrywide year-specific effects show a positive relationship between white suburbanization and the rate of black homeownership in central cities - but only in the Northeast and Midwest. There, a 10 percentage point increase in the share of whites who lived in the suburban ring is associated with a 3 to 4 percentage point increase in the rate of black homeownership in the central city. Outside of the Northeast and Midwest, prospective black homeowners relied less heavily on the supply of housing generated by racial turnover and more on new construction in less dense and faster-growing cities.

The authors address potential problems of endogeneity in the linear regressions by instrumenting for white suburbanization with the predicted number of new highway rays passing within one mile of the central city by decade. The number of highway rays is predicted by the product of the number of rays proposed in the 1947 Interstate Highway System plan and decade-specific national highway construction rates. The instrumental variables estimate of the effect of white suburbanization is higher than the corresponding estimate from the linear regressions, suggesting a downward bias in the linear regression results. The authors conclude that while white suburbanization may have harmed blacks in the central city by reducing the urban tax base and increasing racial segregation, suburbanization may have also had countervailing positive effects on black residents by increasing black owner-occupancy.

Removed Preferences

By Jawwad Noor
Discussion Paper 229

This paper considers how an agent's preferences over a set of alternatives change as he is increasingly distanced from the consequences of his choices, denoting these "preferences from a distance" as a "removed preference." The idea of distancing is familiar to philosophers and psychologists and is even part of common wisdom. For instance, when trying to demonstrate to a friend that his smoking is in fact against his own better judgment, we try to get him to view the act of smoking from a distance by asking him how he would feel about his children smoking. In philosophy, the "original position" theories of justice derive an agent's notion of a "just" social allocation by eliciting his view only after placing him behind a "veil of ignorance" that distances him from his own personal identity, or his position in society. Removed preferences are of potential interest from the point of view of welfare analysis that questions the connection between revealed preference and welfare (due to mistakes, biases or impulse control problems, for example) as well as for their usefulness in the axiomatization of decision models.

The author first defines removed preferences in an abstract setting and formulates it in entirely choice-theoretic terms. The primitive object of analysis consists of a sequence of preferences, indexed by n, on a common set of alternatives where n is some measure of distance. The author defines the removed preference as the set-theoretic limit inferior of the sequence. That is, a is removed preferred to b if, for all preferences indexed by large n, a is preferred to b. The author studies the properties of the removed preference in an abstract setting along with those of a continuous extension of the removed preference, the "closed removed preference," which agrees with the removed preference on a dense set of pairs of alternatives and thus is "essentially" in agreement with the removed preference.

The author then presents two applications. The first application draws on the finding, in intertemporal choice experiments, that agents do not discount the future at a constant rate, but rather exhibit a property known as decreasing impatience. With distance defined as temporal distance and considering a general model of discounting, the author shows that decreasing impatience implies that agents' closed removed preferences do feature a constant discount rate. The second application is on risk preference. Research on choice under risk suggests that agents weight probabilities nonlinearly and that risk has visceral effects on decision makers, such as causing anxiety or dread. If distance from risk is to be understood as proximity to certainty, distance can be achieved by scaling down the probabilities of non-zero outcomes. The author finds that in the rank-dependent utility model, which generalizes expected utility by permitting nonlinear weighting of probabilities, closed removed preferences must be expected utility and therefore linear in probabilities.

Time Preference: Experiments and Foundations

By Jawwad Noor

Discussion Paper 230

A common method of eliciting discount functions is based on offering subjects choices over dated rewards, often obtaining subjects' "present values" for various future rewards. The discount function is elicited by computing the ratio of the present reward to the future reward. This method presumes that a subject's preferences over dated rewards follow a separable discounted utility model where the extent of discounting does not depend on the size of the reward being considered and the utility associated with the reward is linear. However, this method typically finds implausibly high discount rates; rates in excess of 100% are common.

This has motivated a literature that seeks alternative methods of eliciting discount functions to which this paper belongs. The paper provides a novel experimental design permitting a general analysis of discounting. While the common method is based on how subjects trade off money against time, the data required for the method described in the paper come from observing how subjects trade off time against time.

For a fixed small and large reward, the experimental design elicits for each date t, the date t' such that the subject is indifferent between receiving the small reward at t and the large reward at t'. Data varying the small reward and, for each small reward, the date at which the reward is received, constitute data on the subject's "delay function," which maps pairs of small rewards and dates t into dates t' at which the subject is indifferent between the small reward-date pair and receiving the large reward. The paper's main theoretical result delivers an explicit formula for computing the functional form of a subject's discount function on the basis of data contained in his or her delay function. The method requires no assumptions on the curvature of the utility function for monetary rewards.

Lastly, the author notes that, in theoretical settings, the presumption that we have all possible data makes it irrelevant whether we consider present values or delay functions. The second main theoretical result in the paper demonstrates that limited finite data on delay functions reveal more than any arbitrary amount of finite data on present values. This result clearly demonstrates the importance of gathering data on delay functions rather than present values in experimental settings, where data are finite.

Dynamic Competing Mechanisms

By Sambuddha Ghosh and Seungjin Han
Discussion Paper 231

The literature on competing mechanisms studies more than one principal forming contractual relations with agents. Applications range from providing public goods to selling private goods, and from lobbying to financial contracting. To take a concrete example, the agent is a firm that repeatedly decides to rent cars from two competing rental companies, the principals. The renter has private information about its type: whether it wants luxury cars or just the cheapest ones available. The setting becomes dynamic when interaction is repeated and the renter's type changes over time.

This paper extends static models of competing mechanisms to the repeating setting, with each agent's type evolving according to a Markov process. In each period, principals simultaneously offer one-shot mechanisms to three or more agents who see all mechanisms and then send private messages to each principal. The profile of messages sent to a principal determines his action. Agents observe actions taken by principals in any period after sending messages. However, a principal never observes the others' mechanisms and actions. Types and messages remain private.

In static settings, it is not possible to derive the lowest payoff the other players can force on a principal - his minmax value - relative to arbitrarily general mechanisms in terms of the primitives of the model, where the primitives are the payoffs over actions taken by principals. However, the authors show that it is possible to derive a principal's minmax value in terms of model primitives in dynamic settings where discounting is low, i.e. when players are patient or the game is played frequently. The exact derivation of each principal's minmax value allows the authors to characterize equilibrium payoffs in terms of model primitives as well. The major innovation in the folk theorems, which show that any feasible and strictly individually rational payoffs can be achieved in equilibrium, is that principals do not need public or private signals on mechanisms offered by and actions taken by the others. Communication with agents enables principals to know which action a principal deviating from the equilibrium takes and whether or not an agent deviates from continuation equilibrium communication with the deviating principal off the equilibrium path.

The authors find that truthful incentive-compatible direct mechanisms, augmented by communication about the identity of the deviating principal and his action, are sufficient to support all possible equilibrium payoffs. Furthermore, the incentive compatibility of direct mechanisms is defined over the agents' type reports with respect to their stage payoffs and is independent of the additional communication. Static models of competing mechanisms, in contrast, necessitate extremely complex mechanisms.

"First-Mover" and "Late-Developer" Advantages: Institutions and Market Design in the New York and Los Angeles Garment Districts, 1900-1960

By Peter B. Doeringer
Discussion Paper 232

This paper examines the formative periods of the two largest garment districts in the United States, New York City and Los Angeles County, in order to understand their different growth paths and the development of their institutional environments. New York City was the earliest "fashion" district in the United States and its "first mover" advantages during the 1880s and 1890s gave it a near monopoly in the U.S. women's wear market by the start of the 20th century. Los Angeles was an insignificant garment district serving a relatively small regional market until the late 1920s and early 1930s when its pioneering sportswear designs contributed to its emergence as a "late developing" district.

The historical differences in the timing of development have endowed the New York and Los Angeles apparel industries with a distinctive set of economic institutions - trade unions, employer associations, contracting relationships and manufacturing cultures. Differences in unionization have been particularly significant and have shaped the way that markets are organized in each district. The New York City garment district had highly competitive labor and product markets during the late 19th century that were "unraveling" in a chaotic form of hyper-competition. Unions entered this market in the early 20th century with the goal of stabilizing the labor market and reached a series of collective bargaining agreements with employers that regulated both labor and product markets during much of the 20th century. The Los Angeles district remained largely free of unions and its markets were governed by intense competition except for a brief period during the late 1930s to the mid-1940s.

This natural experiment in alternative market "designs" has had path-dependent effects that have persisted into the current decade even though union strength had substantially eroded in New York City by the latter part of the 20th century. The late developing Los Angeles industry opted for a set of competitive market arrangements that appear to be superior when compared the more-institutional market governance first adopted by New York. The Los Angeles apparel industry continued to grow long after New York's began to decline from import competition and it has displaced New York as the largest U.S. garment district, with more than three times as many apparel industry employees, a larger share of domestic output of women's wear, and a lower rate of job loss in recent years. However, New York is performing better than Los Angeles by measures such as productivity and pay. It remains to be seen which market design provides the better odds of survival in the future.

Fashion Clusters and Market Re-design in the 21st Century: Contracting Networks, Performance Incentives, and Garment District Advantage in New York and Los Angeles

By Peter B. Doeringer
Discussion Paper 233

Recent apparel industry research has focused on what "market design" is best suited for the survival of the industry in the United States. This paper examines two sets of natural experiments in market design conducted in the New York and Los Angeles garment districts. Both districts have experienced sharp declines in output and employment during the 2000s as apparel production continues to move to lower-wage offshore sources. The author argues, based on field research and growth accounting models, that the key to understanding the past and future economic performance of the two districts lies in differences in the relationships between manufacturers and contractors and in the fashion-content of their specializations.

In New York, which has long specialized in high-fashion products, the main source of district advantage dating back to the early 1900s came from market regulation through collective bargaining. While this regulation was designed to protect the district's markets against entry, the regulations also resulted in long-term relationships between manufacturers and their core contractors that provided opportunities for mutual investments in knowledge and skill and for the development of strongly embedded reciprocal economic obligations between the two groups. In contrast, the Los Angeles district, which primarily specializes in sportswear and more standardized women's wear fashions, has a long history of successfully resisting unions and other forms of regulation, and of favoring intensely-competitive, arms-length contracting relationships. By keeping unions weak, having particularly abundant supplies of immigrant labor and sometimes taking advantage of the lax enforcement of labor standards, the district was able to secure cost advantages by promoting active competition among contractors.

Both districts now see their futures in relatively small niche markets, which offshore suppliers often have difficulty serving, with quick and flexible production methods. However, the author argues, differences in district advantages are likely to sharpen a fashion divide defined by higher fashion products in New York and "fast fashion" products in Los Angeles. New York's more fashionable products involve higher levels of design, better quality of fabric, and a more-skilled manufacturing capacity compared to "fast fashion" products where designs are developed continuously and in large numbers for markets where up-to-the-minute fashion trends and lower prices are most important. New York has a fashion advantage in its large pool of designers, its proximity to fashion buyers and its contracting relationships characterized by knowledge investments, skill development and commitments to reciprocal cooperation. While fast fashion products require quicker production schedules than most of Los Angeles's current specializations, the district can continue to draw on its current design and assembly skills and will benefit from the cost advantages generated by its contracting environment.

R&D and Productivity: Estimating Endogenous Productivity

By Ulrich Doraszelski and Jordi Jaumandreu
Discussion Paper 234

A firm invests in R&D and related activities to develop and introduce process and product innovations. These investments in knowledge enhance the productivity of the firm and change its competitive position relative to other firms. This paper assesses the role of R&D in determining differences in productivity across firms and in the evolution of firm-level productivity over time.

The paper provides an alternative approach to the "knowledge capital" model that has been a cornerstone of the productivity literature for more than 25 years. In the knowledge capital model, firms accumulate a stock of knowledge capital by making periodic R&D expenditures and this stock affects productivity by entering as an input into the firm production function. In practice, researchers measure knowledge capital as the sum of past R&D expenditures. The authors of this paper instead consider productivity to be unobservable and recognize that the outcome of the R&D process is likely to be subject to a high degree of uncertainty, which is ignored in the knowledge capital model. Once discovered, an idea has to be developed and applied, and there are technical and commercial uncertainties linked to its practical implementation. Further, current and past investments in knowledge are likely to interact in complex ways.

To retrieve unobserved productivity at the level of the firm, the authors use the fact that materials and labor, the static inputs in firm production, are decided on with current productivity known and, therefore, static input demands can be inverted to yield productivity. Using a particular functional form for the firm production function allows the authors to derive a specific closed form for the inverse input demand functions, avoiding the problems associated with non-parametric estimation of the inverse input demand functions elsewhere in the literature.

The authors apply their methodology to an unbalanced panel of more than 1800 Spanish manufacturing firms during the 1990s. The data combine information on production, R&D activities and firm-level wages and prices. The authors find important nonlinearities and uncertainties in the R&D process. The impact of current R&D on future productivity depends crucially on current productivity, with nonlinearities often arising because of complementarities between current R&D and current productivity. Between 25% and 75% of the variance in productivity is explained by innovations that cannot be predicted when decisions on R&D are made, depending on the industry. Despite the uncertainties in the R&D process, the authors show that the expected productivity of firms that perform R&D is systematically more favorable. In addition, they estimate that firms that perform R&D contribute between 65% and 90% of productivity growth in the industries with intermediate or high innovative activity. The model proposed in this paper provides a statistically significant improvement in fit compared to the knowledge capital model and yields different results, with higher elasticities with respect to R&D expenditures and lower elasticities with respect to already attained productivity.

Faculty Profiles

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

Kehinde Ajayi's current research is focused on education and youth employment in Africa. She continues to work on a project that examines the schooling choices of secondary school students in Ghana. Key questions in this project include: What kind of information influences schooling decisions? Do differences in male and female labor market opportunities affect choices about what field to study? And how does school quality affect student outcomes? She is also pursuing a project on how access to secondary school affects the employment of youth in urban Kenya and is conducting a study on the role of private institutions in expanding access to tertiary education.

Marianne Baxter in the past year worked on projects in a wide range of fields. In research that is related to her prior work on macroeconomic consequences of home production, she has been engaged in a large-scale econometric analysis of household expenditures and household time use as they pertain to home production. She is also working with a new data set using IKEA catalogs from many countries and up to twenty years to study the determinants of departures from the law of one price.

Laurent Bouton, Assistant Professor, is an applied theorist whose interests include political economy, microeconomics, and public economics. His current work examines both theoretically and in the laboratory the properties of various electoral systems when voters are strategic. In another line of research, Laurent analyzes the welfare effect of rankings in markets in which there are consumption externalities and/or capacity constraints (e.g. education markets).

Peter Doeringer continues to work on his book on organizational design, efficiency incentives, and regional agglomeration economies, based on enterprise surveys of apparel manufacturers in the United States and Europe. Recent results from his work on the New York and Los Angeles garment districts were presented at the tenth annual Industry Studies Conference in Pittsburgh. He also completed a chapter on "Project-Based Industries and Craft-like Production: Structure, Location, and Performance" (with Pacey Foster, Stephan Manning, and David Terkla) in the *Handbook of Economic Geography and Industry Studies* and wrote two discussion papers relating to his apparel research -- First-Mover and Late-Developer Advantages: Institutions and Market Design in the New York and Los Angeles Garment Districts, 1900-1960" and "Fashion Clusters and Market Re-design: Contracting Networks, Performance Incentives, and Garment District Advantage in New York and Los Angeles". Professor Doeringer was recently appointed to the Editorial Board of the International Labor review and he continues to serve on the editorial boards of World Development and MassBenchmarks and he is also the Coordinator of the Regional Economic Development/Adjustment Policy Research Network for the Labor and Employment Research Association. He continues to serve as a labor arbitrator and chaired tripartite arbitration panels in two public sector labor disputes last year.

Randall Ellis' recent research focuses on how payment systems affect health care providers and health plans. Since June 2010 he has been servings as President of the American Society of Health Economists (ASHEcon). His research on risk adjustment and predictive modeling resulted in payment models that are being used in the US since 2000 and Germany since the beginning of 2009, and similar models are being evaluated in numerous other countries. During the past year Ellis has given talks in the US and Canada. He is currently collaborating with researchers in Australia, Chile, and China, and as well as with multiple graduate students on US and developing country topics.

Carola Frydman works at the intersection of economic history, corporate finance, and labor economics. Recently, she has investigated the changes in executive compensation, the market for managers, and income inequality in the U.S. over the twentieth century. Her current project studies the evolution of businesses organizations and financial markets from 1900 to 1930, focusing on the value of connections to bankers through boards of directors, and the detrimental consequences of these ties on firm outcomes during financial crises.

Stefania Garetto's current research analyzes the risk implications of firms' international operations. She integrates new trade theory and theoretical asset pricing models to analyze, both qualitatively and quantitatively, the economic drivers of international activity and their consequences. In a series of related papers, she analyzes the relationship between export/FDI status and financial indicators. Her current work in particular focuses on banks' international activities. Her current research analyzes the risk implications of firms' international operations. She integrates new trade theory and theoretical asset pricing models to analyze, both qualitatively and quantitatively, the economic drivers of international activity and their consequences.

Simon Gilchrist's research studies the effects of financial market imperfections and financial crises on real economic activity, with particular focus on the implications for investment behavior, business-cycle dynamics, and the conduct of monetary policy. Recent work explores the predictive content of credit spreads for macroeconomic activity and studies the effect of investment irreversibility on business cycle dynamics in environments where capital serves as a form of collateral in loan contracts.

Robert King continues to focus his research on monetary policy and macroeconomics. Particular areas of current interest are the nature of price dynamics; the influence of reputation and credibility on optimal monetary policy; and the history of banking markets.

Kevin Lang continues to focus his research on education and on labor markets. In addition to his labor market research focused on the United States, with Dalit Gafni and Erez Siniver, he continues to work on the Israeli labor market. He and Deepti Goel are studying the role of social networks in the assimilation of immigrants to Canada. His book, Poverty and Discrimination, was published by Princeton University Press in 2007.

Robert Lucas's current work encompasses two main fields: international migration and inter-generational mobility. Lucas is working on a series of papers in collaboration with Sari Pekkala Kerr, a former IED visitor, on inter-generational mobility in Finland. He is also preparing a chapter on African migration to appear in the North-Holland Handbook series. In addition, Lucas has been acting as a member of the advisory committee on remittances to the G8.

Jianjun Miao continues to work on two lines of research. The first line is to explore macroeconomic implications of financial frictions. He and Pengfei Wang have worked on a project on credit risk and business cycles and another project on bubbles and credit constraints. Now, they are working on a new project on the impact of bubbles on economic growth. The second line of his research is to develop new models of ambiguity sensitive preferences and to apply these models to macroeconomics and finance. He is working on a project with Jiang Wang on ambiguity in heterogeneous agent economies and another project with Hui Chen and Nengjiu Ju on a project about fragile beliefs and stock market crashes.

Andrew Newman is currently engaged in several research projects pertaining to development, organizational economics, inequality, and the economics of the household. Recent work involves developing a testable competitive equilibrium framework for studying how firms' internal organization decisions such as outsourcing or vertical integration interact with markets and how those decisions in turn affect product market performance, particularly in the face of globalization. He has also been contributing to the economic theory of matching markets and applying that to affirmative action policies. And he is exploring how the processes by which people learn about their economic environment can lead to organizational dysfunction and change.

Robert Margo is Chair of the Department of Economics. Whenever he can he continues to work on three projects. The first project examines long run trends in the United States in racial differences in homeownership. A second project uses microeconomic census data from the mid-to-late 19th century to study the growth of manufacturing in the United States. The final project, with Jeremy Atack (Vanderbilt) uses GIS techniques to chart the evolution of the transportation revolution in 19th century America.

Dilip Mookherjee has been working on a combination of theoretical and empirical topics related to development economics. Currently ongoing projects include inequality, mobility and welfare (with Marcello d'Amato and Stefan Napel), effects of bankruptcy law in India and the US (with Ulf Lilienfeld), land policies and local governance (with Pranab Bardhan and Maitreesh Ghatak), microfinance and determinants of middlemen margins in India (with Pushkar Maitra, Sandip Mitra, Maximo Torero and Sujata Visaria). During the past academic year he was on sabbatical leave at Columbia University.

Wesley Yin continues to work on a number of projects related to health and economic development. In ongoing work, Wes is studying mechanisms that tie economic growth to the development of well-functioning health care markets. In the context of India he is studying effects of entry of high-quality pharmacies on incumbent mom and pop pharmacies, their provision of drug quality and ultimately on antibiotic quality and community health. In Nigeria he is studying how anti-counterfeit drug technologies impact the market for anti-materials. He and his colleagues are conducting survey data on drug prices, quality and demand, as well as health before and after the rollout of the anti-counterfeit technology, in order to assess the market implications of quality authentication.

Seminars

IED organizes a weekly seminar year-round where visiting speakers present their research. The following is the list of seminars the past year.

FALL 2011

September 19th
Cesar Martinelli (ITAM)
"Ignorance and Naivete in Large Elections"

September 26th
Dave Donaldson (MIT)
"How Large are the Gains from Economic Integration? Theory and Evidence from U.S. Agriculture, 1840-2002"

October 3rd
Patrick Francois (UBC)
The Emergence of Democratic Accountability

October 17th
Paola Conconi (ECARES, ULB)
"Policymakers' Horizon and Trade Reforms" (joint with Giovanni Facchini and Maurizio Zanardi)

October 24th
Rohini Pande (Harvard)
"Debt Structure, Entrepreneurship, and Risk: Evidence from Micro finance" (joint with Erica Field, John Papp, Natalia Rigol)

October 31st
Maitreesh Ghatak (LSE)
"Microfinance with a Monopoly Lender" (joint with Jon de Quidt and Thiemo Fetzer)

November 7th
Philip Bond (Minnesota)
"An equilibrium theory of overpaid jobs" (joint with Ulf Axelson)

November 16th
Jonathan Eaton (Penn State U)
"A Search and Learning Model of Export Dynamics" (with Marcela Eslava, David Jinkins, C.J. Drizan, Maurice Kugler and James Tybout)

November 28th
Abhijit Banerjee (MIT)
"Diffusion of microfinance" with Arun Chandrashekhar, Esther Duflo and Matt Jackson

December 5th
Mark Rosenzweig (Yale)
"Are Indian Farms Too Small? Mechanization, Agency Costs, and Farm Efficiency" (joint with Andrew D. Foster)

December 12th
Graziella Bertocchi (Modena)
"Race v. Suffrage: The Determinants of Development in Mississippi"

SPRING 2012

March 5th
Seema Jayachandran (Northwestern)
"Incentives to Teach Badly: After-School Tutoring in Developing Countries"

March 19th
Jim Snyder (Harvard)
"Elections and Government Accountability: Evidence from U.S. State Courts"

March 26th
Marco Battaglini (Princeton)
"The Free Rider Problem: a Dynamic Analysis"

April 2nd
Chris Udry (Yale)
"Financial Markets and Investment in Agriculture"

April 9th
Kaivan Munshi (Brown)
"Black Networks after Emancipation: Evidence from Reconstruction and the Great Migration" (joint with Kenneth Chay)

April 23rd
Lorenzo Caliendo (Yale)
"The Anatomy of French Production Hierarchies"

April 30th
Josh Schwartzstein (Dartmouth) "Learning Through Noticing: Theory and Experimental Evidence in Farming" (joint with Rema Hanna and Sendhil Mullainathan)

Distinguished Visitors 2011/2012

Stefano DellaVigna Professor at the University of California, Berkeley, visited from September 12th through the 16th. He gave one seminar and two lectures on Empirical Microeconomics.

Bruce Hansen is the Tryge Haavelmo Professor of Economics at the University of Wisconsin September 26th through the 30th. He gave one seminar and one lecture on Econometrics.

John Rust is a Professor of Economics at the University of Maryland, visited from October 24th through 28th and gave one seminar and two lectures in Industrial Organization.

Jonathan Eaton is the Liberal Arts Research Professor of Economics at the Pennsylvania State University, visited on October 31st through November 3rd and from November 15th through the 17th and gave two seminars and three lectures on Macroeconomics (trade).

Mark Rosenzweig is the Frank Altschul Professor of International Economics and Director of the Economic Growth Center at Yale University, visited on December 5th trough the 9th and gave one seminar and two lectures on Development.

Randall Wright a professor in the department of Finance, Investment and Banking at the Wisconsin School of Business, where he holds the Ray B. Zemon Chair in Liquid Assets visited on February 28th through March 1st and gave one seminar and two lectures on Macro.

Larry Samuelson a Professor of Economics at Yale University, visited April 30th through May 3rd. He gave one seminar and two lectures on Theory.

Students Activity

PhD Students Completed Dissertations and Placement

The Economics Department had another strong and diverse group of PhD students on the job market this year. We congratulate the following students on their new positions: **Timothy Bond** (Purdue University), **Adam McCloskey** (Brown University), **Francesco Pino** (ECARES Belgium), **Guillem Riambau** (National University of Singapore-Yale), **Denis Tkachenko** (National University of Singapore), **Chun Wing Tse** (Central University of Finance and Economics, Beijing, China), **Jordi Vidal-Robert** (University of Warwick, England).

The following students obtained starting professional research consultant/young economist positions: **Hyo-Youn Chu** (Korean Research Institute), and **Paul Karner** (Analysis Group).

2012 Rosenstein-Rodan Prize

The Rosenstein-Rodan prize is awarded annually for the best paper in a development-related area written by a PhD economics student. This year the prize was shared by two students for the following papers:

Giulia La Mattina

“When all the Good Men are Gone: Sex Ratio and Domestic Violence in Post-Genocide Rwanda,” which provides evidence that increases in the scarcity of men relative to women following the Rwandan genocide led to increases in the rates of domestic violence.

Chun-Kai Wang

”On the Impact of Trade Openness for Economic Growth,” which develops an elegant trade model that can account for the mixed evidence on the effects of openness on rates of innovation and growth.

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