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## The Urbanization of Global Poverty

● Martin Ravallion, Shaohua Chen, and Prem Sangraula

### Urbanization has generally done more to reduce rural than urban poverty

How much of the world's poverty is found in rural areas, and how much in urban? How quickly is the problem of poverty shifting to urban areas? Is urbanization a good or bad thing from the point of view of fighting poverty?

To help answer these questions, Ravallion, Chen, and Sangraula created a new data set, drawing on more than 200 household surveys for about 90 countries. The data represent 92 percent of the population of the developing world.

The task is not as easy as one might guess. The first problem is that existing purchasing power parity exchange rates do not provide a cost-of-living differential between urban and rural areas. Yet it is clear that the cost of living is higher in urban than in rural areas of most developing countries. To address this measurement problem, the authors derived estimates of the urban-rural differential in cost of living for the poor from what appears to be the best available source, the World Bank's poverty assessments, which have now been done for most developing countries.

By estimating everything from the primary data, the authors were able to assure a relatively high degree of internal consistency (compared with other compilations of distributional data). But of course there are data problems that cannot be resolved from existing data. One is that dif-

ferent countries have somewhat different definitions of *urban* and *rural*. Another is that the urban-rural differential in cost of living may vary by income. As a result, the differential from the poverty assessments in middle-income countries may not be right for the \$1-a-day international poverty line, which is based on the concept of poverty typically found in low-income countries.

What do these new data show? On average, the urban poverty line is about 30 percent higher than the rural line. Even allowing for the higher cost of living facing the poor in urban areas, the "\$1 a day" rural poverty rate of 30 percent in 2002 is more than twice the urban rate (table 1). Similarly, while 70 percent of the rural population lives below \$2 a day, less than half that share does in urban areas.

About three-quarters of the developing world's poor still live in rural areas. But poverty is becoming more urban over time. The share of the "\$1 a day" poor living in urban areas rose from 19 percent to 25 percent over 1993–2002 (while the urban share of the population as a whole rose from 38 percent to 42 percent).

The poor are urbanizing faster than the population as a whole, reflecting a lower-than-average pace of urban poverty reduction. Over 1993–2002, while 50 million people were added to the count of the "\$1 a day" poor in urban areas, the aggregate count of the poor fell by about

(continued on page 8)

### IN THIS ISSUE

The Urbanization of Global Poverty ... page 1

*Is urbanization a good or bad thing for fighting poverty? New data suggest it's a good thing*

#### FOCUS

Macroeconomic Volatility and Development ... page 2

*Volatility is linked with lack of development. How to tackle it? With a three-pronged strategy*

Brain Waste? Educated Immigrants in the U.S. Labor Market ... page 3

*Fine-tuning education standards might be one way to reduce "brain waste"*

Inefficient Lobbying, Populism, and Oligarchy ... page 4

*Does lobbying lead to inefficiencies? Yes, and they are likely to favor lagging sectors or regions*

Weaponomics: The Global Market for Assault Rifles ... page 5

*New data on prices of assault rifles help show what affects the flows of these weapons and what might help control them*

Exit and Exclusion as Routes to Informality ... page 6

*How to reduce informality? Increase the benefits of formality as well as the opportunity cost of remaining informal*

Will Markets Direct Investments under the Kyoto Protocol? ... page 7

*Costs are probably not the only factor determining where private investors locate emission reduction projects*

## FOCUS

## Macroeconomic Volatility and Development

**Reducing volatility in developing countries calls for a three-pronged strategy, including stronger shock absorbers**

By any measure, developing countries always have the most macroeconomic volatility. The connection between volatility and lack of development is undeniable, making volatility a fundamental development concern. What is behind this relationship? Is volatility a source or a reflection of underdevelopment? And what characteristics of underdevelopment put poor countries more at risk?

Macroeconomic volatility in developing countries has particularly large welfare costs. The direct welfare loss of deviating from a stable consumption path reaches up to 5–10 percent of annual consumption in some Latin American countries, compared with less than 1 percent in industrial countries. No less important, macroeconomic volatility has an adverse impact on output growth and thus on future consumption. This is worst in countries that are poor, financially and institutionally underdeveloped, or unable to conduct countercyclical fiscal policies. The average effect of a one-standard-deviation increase in macroeconomic volatility (the distance between the output gap variance of Indonesia and the United Kingdom) is a loss of 1.28 percentage points of per capita GDP growth.

The greater volatility in developing countries stems from three sources. First, developing countries receive bigger exogenous shocks. These may come from financial markets, taking the form of, for example, “sudden stops” of capital inflows. Or they may come from goods markets, especially as abrupt and large changes in the international terms of trade.

Second, developing countries seem to experience more domestic shocks. These are generated by a combination of the intrinsic instability of the development process and self-inflicted policy mistakes. Governments often instigate mac-

roeconomic volatility by conducting erratic fiscal policy and, even worse, sometimes financing it through similarly volatile inflationary monetary policy. In low-income countries especially, domestically induced shocks—related to social conflict, economic mismanagement, and political instability—account for most of the fluctuations in GDP per capita. For these countries external shocks—linked to terms of trade, foreign aid, international finance, and climatic conditions—contribute a significant but small share of macroeconomic volatility.

Third, developing countries have weaker “shock absorbers,” so external fluctuations have larger effects on their macroeconomic volatility. Economists have traditionally identified shock absorbers with two elements: financial markets to diversify macroeconomic risk and stabilization policies to counteract aggregate shocks. Both are deficient in developing countries. Financial markets are shallow, drying up in times of crisis when they would be most useful and failing to provide adequate instruments to diversify away the risk posed by external shocks. Similarly, macroeconomic policies often tend to amplify volatility in developing countries. Fiscal policy is generally procyclical, expanding in booms and contracting in recessions.

Mainstream analysis of shock absorption has traditionally focused on macroeconomic policy. More recently, microeconomic policy also has been found to play an important role. In particular, the high levels of microeconomic regulation in developing countries hamper the adjustment to shocks by restricting the ability to reallocate resources. There is evidence that tighter barriers to microeconomic reallocation—particularly related to regulation of labor markets—make countries more vulnerable to economic shocks.

The three main sources of macroeconomic volatility suggest a need for a three-pronged strategy to manage it. The first element of such a strategy is to reduce domestic policy-induced

volatility by controlling the level and variability of fiscal spending, by keeping a stable monetary and financial policy, and by avoiding price rigidity (including that of the exchange rate), which eventually leads to drastic adjustments.

The second element is to strengthen the economy’s shock absorbers. Creating room for countercyclical fiscal policies is essential. This depends on the ability of the authorities to reduce public debt to internationally acceptable levels, establish a record of saving in good times, and develop credibility against perceptions of wasteful spending and default risk. The financial sector can also play a role as a shock absorber. Governments can help by reducing financial fragilities and deepening financial markets through the elimination of implicit contingent liabilities and insurance schemes (such as fixed exchange rate regimes) and through the proper protection of creditor and shareholder rights. Finally, firms and other microeconomic agents should have the flexibility to adjust to shocks by reallocating resources across plants, areas, and sectors. Competition and trade provide the basic incentives and mechanisms for effective resource reallocation, but governments can help by reducing the burden of regulations.

The third element is to manage external shocks. Governments have traditionally had three options: self-protection (reducing the exposure to risk through, for example, low trade and financial openness), self-insurance (transferring resources across time by, for example, accumulating foreign reserves during tranquil times), and full hedging and insurance (transferring resources across “states of nature” by, for example, securing contingent credit lines or trading commodity-linked options).

An optimal strategy would typically combine all three options to different degrees. But hedging and insurance, the option that potentially entails the smallest costs in forgone investment

*(continued on page 5)*

# Brain Waste? Educated Immigrants in the U.S. Labor Market

● Aaditya Mattoo, Ileana Cristina Neagu, and Çağlar Özden

## Education policies at home and immigration policies abroad both offer ways to reduce “brain waste”

Everyone in New York has a story about how they discovered that their taxi driver was an Eastern European scientist. And many taxi drivers tell stories about how their Indian passengers are nearly always computer scientists. A paper by Mattoo, Neagu, and Özden investigates the empirical basis for these popular perceptions. It addresses three related questions: How widespread is unskilled employment among educated immigrants in the United States? Does the incidence differ with the immigrants’ country of origin? Can any differences be explained by observable attributes of the country of origin?

Using U.S. census data, the authors demonstrate striking differences in the occupational attainment of immigrants with similar educational backgrounds but different countries of origin. Even after controlling for age, experience, and education level, they find that highly educated immigrants from certain countries are less likely to obtain skilled jobs. For example, a hypothetical 34-year-old Indian college graduate who arrived in 1994 has a 69 percent probability of obtaining a skilled job, while for a Mexican immigrant of identical age, experience, and education the probability is only 24 percent.

Much of this country-level variation can be explained by certain country attributes. Some of these affect the *quality* of human capital accumulated at home, such as spending on tertiary education and the use of English as a medium of education. Others lead to a *selection* effect—variation in the abilities of migrants because they come from different sections of the skill distribution of their home countries—and include GDP per capita, distance to the United States, and the open-

ness of U.S. immigration policies to residents of the country. For example, a large share of immigrants from some countries (such as Mexico) are admitted through family preferences, visa lotteries, and political asylum, while more immigrants from other countries (such as India) have to rely on employment preferences. Military conflict in the home country can have both a quality effect, because it weakens institutions that create human capital, and a selection effect, because it lowers the threshold quality of immigrants.

The results have implications for policy. In many developing countries today, public and private resources are being devoted to providing university and professional education to those who may end up in jobs (domestically and abroad) that make little use of their education. Gaining a better sense of their destiny should help individuals and their countries improve their allocation of resources for education.

Developing countries face a dilemma in setting education standards. A standard for tertiary education that is locally appropriate (but low relative to developed country standards) reduces the likelihood of skilled migration—yet increases the likelihood that those who migrate will be trapped in unskilled jobs. But a standard that is inappropriately high for domestic needs might increase the probability of skilled emigration—though improve the labor market placement of educated migrants.

One solution might be to move away from a uniform national standard—that is, to set one standard at a level suited for foreign markets and another at a level more appropriate and cost-effective for domestic needs. If brain drain is a concern, a country could direct most public funding toward institutions that apply the second standard, while private sources fund the education of potential migrants. At the same time, “export quality” institutions could be liberated from the need to be locally

appropriate. They could even target specific export markets. One successful example: the nursing schools in the Philippines that use an American curriculum to train their students for the U.S. market.

In some regulated professions nonrecognition of foreign qualifications and licenses may be a barrier to entry. Denial of recognition may be legitimate when home country qualifications are inadequate. But in some cases the burdensome requalification requirements imposed on foreigners reflect the protectionist capture of regulatory processes by domestic vested interests. The authors’ results suggest that individuals educated in some countries are better equipped to overcome these barriers, mainly because of greater compatibility of education and professional standards. In any case, more needs to be done, and one possible venue is the services and Mode 4 negotiations at the World Trade Organization.

There are also implications for the design of immigration policies in destination countries. For example, a simple “points based” system might not be the ideal mechanism for choosing skilled migrants, since it would assign similar points to nominally identical degrees received in countries with considerable differences in the quality of human capital. The system might operate more effectively if it gave more points to degrees earned in countries with higher-quality education. Information on migrants’ employment history in their home country or evidence of an offer of skilled employment in the destination country (as in the U.S. H-1B program) would also be effective in identifying relevant skill levels.

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Aaditya Mattoo, Ileana Cristina Neagu, and Çağlar Özden. Forthcoming. “Brain Waste? Educated Immigrants in the U.S. Labor Market.” *Journal of Development Economics*.

# Inefficient Lobbying, Populism, and Oligarchy

● Filipe R. Campante and  
Francisco H. G. Ferreira

## Lobbying is likely to create inefficiencies that favor less productive groups at the expense of more productive ones

Does lobbying—using private resources to influence public policy—cause inefficiency?

Across the world private groups routinely lobby governments in pursuit of favorable treatment: trade protection, regulatory benefits, lower taxes, or preferred public expenditures. Lobbying is sometimes illegal—through corrupting elected politicians—but legal forms abound in almost all countries.

Does all this (costly) activity simply redistribute resources from a given pie, or are there aggregate efficiency losses resulting from lobbying that reduce the overall size of the pie? Clearly, if the lobby transfers to government agents are seen as a deadweight loss, lobbying is inefficient by definition. But government employees and politicians are part of society too, so perhaps their gains should not be treated as social losses. Lobbying transfers to politicians can be viewed as undesirable, but that does not make them necessarily inefficient.

In fact, a central result in the economics literature on lobbying is precisely that, under a set of assumptions about how lobbying takes place, the outcome is Pareto efficient. In other words, lobbying may redistribute resources among agents in society, but it does not cause an aggregate loss. While influential, this result has also been met with some surprise. After all, lobbying is seen as a more distortionary form of political action than voting, and electoral outcomes have been shown to be generally prone to inefficiency.

Against this background a new article by Campante and Ferreira makes three contributions. First, it shows that the Pareto efficiency of truthful equilibria in lobbying games applies to a production economy only if there are perfect commitment mechanisms. If capital markets are imperfect or if contract enforcement problems exist, lobbying will in general lead to an inefficient allocation of resources.

The intuition is simple: in a truthful equilibrium private agents offer contributions that return to the government agent the full value of the policy actions they are lobbying for. This enables the government to appropriate all the surplus generated by policy. It therefore chooses the policy that maximizes social surplus.

But this requires that private groups are able (as well as willing) to transfer the full surplus. What if they are credit constrained and can make the transfer only after production takes place? If people cannot credibly commit to contributions that exhaust their gains from a particular policy, the government no longer has an incentive to maximize the full surplus, and the Pareto-efficiency result breaks down.

Second, the article characterizes the nature of the inefficiency generated by lobbying. The article shows that the outcome of lobbying under imperfect commitment is not only almost always inefficient; it is also biased against the most productive group. This follows from specialization in accordance with comparative advantage: those who are most productive tend, on the margin, to allocate more resources to private capital and fewer to political contributions. The reverse is true for those who are less productive.

The prediction is a world in which declining sectors spend more resources on lobbying than vibrant emerging sectors, which tend to channel funds toward productive investment. Lobbying would thus

be expected from such groups as farmers in Europe, steel employers and workers in the United States, and computer makers in Brazil, but not from farmers or steel producers in Brazil or computer makers in the United States.

Finally, the article considers the implications of this more nuanced understanding of lobbying for the distribution of wealth. While many papers have suggested that lobbying always favors the rich, this article shows that the distributive bias of lobbying depends on why the rich are rich. If they are rich because they inherited their wealth (and wealth and productivity are independent, and the rich have an advantage in politics), lobbying is generally pro-rich.

Alternatively, if the rich are rich because they are more productive, lobbying may distort the composition of public spending against them. On the margin there will be “too much” spending on welfare and on bad public schools and too little on goods valued by the rich (such as security and universities). Such a “populist equilibrium” may be

reversed, however, if the rich are better able than the poor to organize themselves.

The upshot is that the reassuring theoretical result that lobbying is efficient is valid only in highly restrictive situations. In general, the existence of lobbying is most likely to create economic inefficiencies—a result with implications for the design of political systems, including governance and campaign finance reforms in developing countries. Those inefficiencies are likely to favor less economically productive groups (such as lagging sectors or regions) at the expense of more productive ones.

*Declining sectors will spend more on lobbying than vibrant emerging sectors*

Filipe R. Campante and Francisco H. G. Ferreira. 2007. “Inefficient Lobbying, Populism, and Oligarchy.” *Journal of Public Economics* 91: 993–1021.

# Weaponomics: The Global Market for Assault Rifles

● Phillip Killicoat

## Prices for assault rifles suggest contagion effects of conflicts in neighboring countries—and reflect the arms flows feeding African battles

Small arms cause an estimated 200,000–400,000 deaths each year—and assault rifles in civil conflict about 10,000 of these. Despite the global prevalence of small arms, reliable information on the market for such weapons has been extremely limited. In 1999 the Swiss Small Arms Survey project began to compile data on production, stockpiles, transfers, and government policies. But until recently the survey lacked price data—crucial in understanding the flows of these weapons and gaining insight into policies for their control.

A recent study by Killicoat established a database of prices, observed in 117 countries from 1986 to 2005, for Kalashnikov assault rifles—or AK-47s (from *Avtomat Kalashnikova* 1947, the original model). Through preliminary analysis of those data, the study shows that conflict in neighboring countries is closely associated with large and significant declines in domestic AK-47 prices. By contrast, better governance is closely related to higher AK-47 prices, suggesting the importance of government effectiveness in restricting small arms traffic. Most strikingly, prices in Africa are dramatically lower than those elsewhere, a stark reflection of the ubiquity of AK-47s across the continent.

AK-47s are in the arsenals of more than 80 countries and in practically every theater of insurgency or guerrilla combat. This pervasiveness may be explained in large part by their simplicity. Initially designed for use by glove-wearing Soviet soldiers in arctic conditions, the AK-47 is so simple it is operated by child soldiers in the African desert. As a Soviet invention, the AK-47 was not subject to patent and so could be freely copied, and large caches were distributed to

regimes and rebels sympathetic to the Soviet Union.

The AK-47 has dominated the market for assault rifles for the past half century. Since its technology does not differ significantly from the original, the prices observed across time and countries mainly reflect market conditions, not changes in the rifle. The study therefore uses AK-47s to represent small arms flows.

Theory suggests that four factors drive prices in the small arms market: on the demand side, income and motivation, and on the supply side, regulation and supply costs. Drawing on the new database, a model of the small arms market finds that regulation and supply costs are significant determinants of price. Indicators of government effectiveness—proxies for barriers to weapons trade within and between countries—are consistently significant in determining price. Surprisingly, the collapse of the Soviet Union has a smaller impact than might be expected. The significance of the military expenditures of neighboring countries suggests that regional weapons trade is at least as important in pricing as global trade.

Weapons demand across the African continent has changed over time as local tensions have risen and receded. But without fail, AK-47 prices in Africa have been hugely and significantly lower than those elsewhere. Even controlling for income, government effectiveness, war legacy, and supply cost variables, being located in an African country makes purchasing an assault rifle on average more than \$200 cheaper than the global average. The study posits that because African borders are porous and effective trade barriers negligible, arms supply nearly meets demand and prices converge.

Countries whose neighbors have higher military spending face significantly lower weapons prices domestically. Thus mutual disarmament, where feasible, may reduce weapons supply through at least one channel. Economic development and greater

government effectiveness reduce proneness to civil war directly—and also indirectly, by raising the effective barriers to illicit trade in small arms.

Research in this area is nascent, and this study raises a range of additional questions: Does the availability of small arms (as proxied by price) affect the probability of civil war? Does it lead to longer war? Does it result in more battle deaths? If collection of the price data continues, and further analyses incorporate quantities supplied and demanded, much stronger evidence on policy options to prevent, reduce, and end civil conflict is likely to emerge.

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*Phillip Killicoat. 2007. "Weaponomics: The Global Market for Assault Rifles." Policy Research Working Paper 4202. World Bank, Washington, D.C. This paper is part of a series on Post-conflict Transitions.*

## FOCUS Macroeconomic Volatility and Development

*(continued from page 2)*

and access to the advantages of integration, is currently unfeasible for developing countries. They have therefore relied excessively on self-insurance as a compromise solution between the extremes of isolation and no protection, and have started to accumulate massive foreign reserves. Although this may be a sensible temporary solution, the focus for the future should be on developing hedging instruments. There are hopeful signs that some of these instruments—linked, for example, to world financial indicators—are becoming available to developing countries.

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*Norman Loayza and Claudio E. Raddatz. Forthcoming. "The Structural Determinants of External Vulnerability." World Bank Economic Review.*

*Norman Loayza, Romain Rancière, Luis Servén, and Jaume Ventura. Forthcoming. "Macroeconomic Volatility and Welfare in Developing Countries." World Bank Economic Review.*

*Claudio E. Raddatz. Forthcoming. "Are External Shocks Responsible for the Instability of Output in Low-Income Countries?" Journal of Development Economics*

# Exit and Exclusion as Routes to Informality

● Guillermo E. Perry, William F. Maloney, Omar S. Arias, Pablo Fajnzylber, Andrew D. Mason, and Jaime Saavedra-Chanduvi

## Many workers, finding no benefit to interacting with the state, opt voluntarily into informality

Informality is a way of life in Latin America and the Caribbean—indeed, in much of the developing world. In most countries of the region, many workers are not covered by labor protections, the microenterprises found on every street corner often are not registered with authorities and comply only partially with other regulations, and tax evasion is the norm among rich and poor alike.

These features of the Latin American landscape are not new. But the striking increase in their incidence in some countries in the 1990s has given new life to the debate about what high levels of informality tell us about how economies are functioning—and about what we can do to overcome that informality.

A new report by a World Bank team, *Informality: Exit and Exclusion*, explores the richly varied informal sector from a range of perspectives—from the protection of workers and the productivity of firms to the determinants of tax evasion. Much informality has to do with exclusion—with citizens being left outside formal institutions. But exit also plays an important part: many workers, firms, and families, dissatisfied with the performance of the state or simply finding no benefit to interacting with it, opt voluntarily into informality.

The gross flows of workers between the formal and informal sectors often mimic search behavior found in the job-to-job flows in the United States: they are procyclical and broadly sym-

metric. This suggests that entry into the informal sector is often voluntary, a finding confirmed by novel survey data on sectoral choice decisions.

Broadly, informal workers form two clearly distinct groups. The informal self-employed (including owners of microenterprises) are largely voluntary, older workers, while the informal wage earners tend to be young workers searching for better jobs, either formal salaried jobs or self-employment. But the report also finds much heterogeneity within these groups and across countries.

*Much informality has to do with exclusion. But exit also plays an important part*

Informal micro firms exhibit dynamics similar to those of small firms in the industrial world. The small steady-state firm size often means little demand for services associated with formalization (such as support programs for micro and small firms and access to financial and judicial services).

Measures to lower the costs of formality therefore yield effects that, while positive, are often modest. A more holistic approach is recommended, one that would also improve the benefits of formality and increase the opportunity cost of remaining informal. Firm-level analysis identifies several plausible channels through which informality may affect overall productivity, but cross-country panel analysis is unable to identify robust aggregate impacts on growth.

Poorly designed social security systems, and alternative free services for the informal, create both a push and a pull toward the informal sector. The report speculates on the link between informality and the soundness of the “social contract”—a shorthand for how citizens of the region relate to the state and to one another. It suggests that high informality indicates serious

institutional failures that lead to, and are reinforced by, generalized social norms of noncompliance with regulations and tax obligations.

Unsurprisingly, the report’s analysis gives rise to recommendations spanning the policy agenda. Since the high level of informality in developing countries is due largely to the low opportunity cost of opening a micro business, the gamut of measures to increase formal sector productivity—improving the business climate, fostering innovation, and the like—and improve workers’ skills is important.

Labor market reform continues to be key, since part of the growth in the share of workers not covered by labor protections in Latin America in the 1990s appears to be due to the increased burden of labor costs and restrictions in several countries. But reform also needs to extend to remedying the poor design of the social protection system, which creates incentives favoring informality.

More generally, shifting the cost-benefit analysis of workers toward engaging with the institutions of the state—both by increasing the benefits of formality and by improving monitoring—is critical to reducing their often voluntary entry into informality. The experiments in reducing the costs of registering businesses and simplifying and reducing taxes for small firms have led to a modest formalization of existing businesses, though with potentially important impacts on these firms. Progress in this area therefore continues to be important and should be complemented with policies that could enhance the access to and quality of services associated with formalization.

All these reforms need to take place in a context of improving the efficiency and fairness of the state, which is often perceived as ineffective and serving only the needs of elites. In the long run this is the only way to change social norms of noncompliance and reduce the “culture of informality.”

Guillermo E. Perry, William F. Maloney, Omar S. Arias, Pablo Fajnzylber, Andrew D. Mason, and Jaime Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. Washington, D.C.: World Bank.

# Will Markets Direct Investments under the Kyoto Protocol?

● Donald F. Larson and Gunnar Breustedt

## Political aims and cultural ties may influence the placement of emission reduction projects under the Kyoto Protocol

Governments alone cannot finance enough investment to significantly reduce greenhouse gas emissions; private participation is essential. Under the Kyoto Protocol private investments in emission reduction can count toward a country's reduction obligations. And those investments can occur in partner countries where costs and emissions are low. But a new study by Larson and Breustedt suggests that political objectives and cultural ties influence the placement of emission reduction projects. If so, the lowest-cost projects may not be approved, and greenhouse abatement costs under the Kyoto Protocol are likely to be higher than predicted.

Costs have played an important part in negotiating implementation of the Kyoto Protocol. While developed countries produce by far the greatest share of emissions, they also face higher costs of abatement. To obtain the greatest reduction in global emissions, "flexibility mechanisms" allow a country nearing its domestic emissions limit to get credit for reducing emissions in any of 36 developing and transition economies. Investors would be motivated by lower costs in developing countries, host countries would benefit from greater investment, and global abatement costs would be substantially lowered.

Given the complexity of the issues involved, treaty participants agreed to launch pilot projects before treaty ratification. The first of these bilateral projects, referred to as "activities implemented jointly" (AIJ), began in 1992. Data are available on the projects approved in the first 10 years, allowing examination of the outcomes of investor application and national approval processes.

How much do AIJ investments differ from those that would have occurred

without the government approval process? Qualitative studies of such processes found that they often include panels with representatives from several government agencies, suggesting that they are likely to be subject to agency mandates and objectives. That literature indicates that abatement cost was just one of several factors affecting approval of AIJ projects.

Building on those precedents, the study models investor decisions and government approval in the AIJ system. In the model the investor's choice of host country is influenced by the investment climate and various governance attributes of host countries and by investor and host countries' commitment to climate change. For the government approval process, the authors assume that some of the national policy objectives that influence bilateral aid also affect approval of AIJ host countries.

If this is true, many aid recipient countries also should be host to AIJ projects. To compare the aid and AIJ approval processes, the authors model donor country aid as a product of several recipient country characteristics—need, size, democratic institutions, civil order, and bureaucratic efficiency—and two variables that reflect the investor country's desire to influence that partner.

The data and different versions of the model are consistent with the hypothesis that donor countries prefer projects that help achieve policy objectives also pursued through bilateral aid. All but 5 of the 147 AIJ projects involved investor and recipient countries that also were partners in bilateral aid. And the analysis shows a strong and significant association between bilateral aid flows and AIJ investments, both in models that consider whether a donor-host pair had any AIJ projects and in those that count the number of joint projects.

This finding of such a clear and strong association suggests that earlier predictions of the effects of the Kyoto Protocol may be optimistic. To

minimize abatement costs and thus maximize emission reduction, objective criteria are needed for project approval that guarantee quality but omit political objectives. Theories of political economy would suggest, perhaps somewhat more realistically, that country preferences be explicitly stated to allow potential investors to accurately account for them.

Another interpretation of the results is that preferences of approving agencies reflect deeper bilateral relationships, or cultural ties that could also influence investor choice. Said differently, deep-seated cultural ties may influence bilateral policy more generally, including aid decisions and AIJ approvals. Such ties may also be important for bilateral investments such as those under the AIJ program, since studies of bilateral ties related to language, culture, and history indicate lower transaction costs where bilateral interactions are frequent and long-lasting.

For these reasons the analysis may be observing the results of private and public decisions: private investors responding to lower transaction costs and risks and public agents responding to established sociopolitical ties and preferences. If this is so, the hurdles to bilateral financing are higher and greater effort is required to find open and transparent ways to contain transaction costs.

With the approval processes, panels, and channels with host countries established, countries may be inclined to retain the institutions built during the pilot phase. Under the Kyoto Protocol, Clean Development Mechanisms rather than the AIJ will be implemented, and binding regulatory constraints will govern them in some countries. Nonetheless, the study suggests that countries need to consider the effects of the AIJ institutions on both costs and abatement in deciding on new mechanisms and approval processes.

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Donald F. Larson and Gunnar Breustedt. 2007. "Will Markets Direct Investments under the Kyoto Protocol?" *Policy Research Working Paper* 4131. World Bank, Washington, D.C.

(continued from page 1)

100 million, thanks to a decline of 150 million in the rural poor.

Latin America has had the fastest urbanization of poverty, and now the majority of the region's poor live in urban areas. By contrast, less than 10 percent of East Asia's poor live in urban areas. This is due mainly to China, where absolute poverty is overwhelmingly rural.

Is this urbanization of poverty in most developing countries good or bad news? To some observers it is the unwelcome forebear of new poverty problems, with urban slums blossoming in congested cities. To others, urbanization is a positive force for development, as the economy gradually shifts out of agriculture to more remunerative activities.

Across countries and over time, as the urban share of the total population rises, the overall (urban and rural) poverty rate tends to fall. (Of course there are exceptions to this generalization, but the overall pattern is clear.) This effect is transmit-

ted largely through higher economic growth associated with more rapid urbanization rather than through redistribution. Indeed, this new evidence suggests that urbanization has generally done more to reduce rural poverty than urban poverty. Urbanization in the developing world appears to be having a compositional effect on the urban population that slows urban poverty reduction—even as poverty falls in rural areas and for the population as a whole.

New urban problems are emerging in poor and rapidly urbanizing countries. But the experiences of countries over time are generally consistent with the view that a rising share of the population living in urban areas plays a positive role in overall poverty reduction.

Martin Ravallion, Shaohua Chen, and Prem Sangraula. 2007. "New Evidence on the Urbanization of Global Poverty." *Policy Research Working Paper 4199*. World Bank, Washington, D.C.

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**Table 1. Urban and Rural "\$1 a Day" Poverty Measures for 1993 and 2002**

Year	Number of poor (millions)			Share below poverty line (percent)			Urban share of the poor (percent)
	Urban	Rural	Total	Urban	Rural	Total	
1993	242	1,038	1,280	13.8	36.6	28.0	18.9
2002	291	890	1,181	13.2	29.7	22.7	24.6

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