

World Bank Research *Digest*

VOLUME 7 ★ NUMBER 2 ★ WINTER 2013

Cities: Planning, Coordinating, and Financing for a Better Future

Policy makers can harness rapid urbanization to build productive, inclusive, and sustainable cities. A new report shows how

Developing countries must prepare to house an additional 2.7 billion people between now and 2050, as people move in unprecedented numbers from rural areas to pursue their hopes and aspirations in cities. Surging populations will place intense pressure on basic services and urban infrastructure at a time when cities in developing countries still lack the resources and institutions to provide all new arrivals with access to jobs, housing, and basic services. And so migrants often settle in slums and areas vulnerable to the effects of climate change to be close to jobs and opportunities.

Yet this need not happen; policy makers can in fact harness rapid urbanization to build productive, inclusive, and sustainable cities. A new World Bank report, *Planning, Connecting, and Financing Cities—Now: Priorities for City Leaders*, shows how. The report builds on a three-year effort to develop a bedrock of credible facts and analysis from countries as diverse in their urban experiences as Uganda, China, India, and the Republic of Korea. The report also provides a framework that can help mayors and other policy makers uncover the impediments to urbanization and identify the policy options for “building cities right” that are most politically, technically, and fiscally feasible.

The framework is shaped around three main dimensions of urban

development: planning, connecting, financing—terms that policy makers use on a daily basis:

- *Planning*—The top priority is planning for land management, which matters for countries and cities at all stages of urban growth. To attract private investment, and enable provision of affordable housing and basic services, policy makers need to strengthen land use planning and coordinate it with infrastructure, transport, and natural hazard risk.
- *Connecting*—Cities need to connect people with jobs and schools, and businesses with markets. The appropriate infrastructure will depend on the speed and magnitude of urban growth. It requires careful analysis that identifies short- and medium-term priorities, and needs to be coordinated with how land is used in cities.

- *Financing*—Financing rapid urban growth is challenging. But financing can become possible and more reliable through taxes that come with increased economic growth—and through the ability of policy makers to leverage land markets and approach local-currency debt markets.

What are the specific tasks under planning, connecting, and financing that policy makers should focus on? Value, coordinate, and leverage are the marching orders that can help sharpen the effectiveness of planning, connecting, and financing (figure 1).

The underlying diagnostic review starts by assessing a country’s or region’s spatial transformation: how the urban economy is evolving, how

IN THIS ISSUE

Cities: Planning, Coordinating, and Financing for a Better Future ... page 1

A new report lays out a framework aimed at helping city leaders identify the most feasible policy options for “building cities right”

Measuring Inequality of Opportunity ... page 2

Two new measures make it possible to compare inequality of opportunity across countries. What do they show?

Breaking Out of the Middle-Income Trap ... page 3

How to sustain economic growth over the long term? A sound education system is almost always key

Real-Time Macro Monitoring and Fiscal Policy ... page 4

Estimates of an economy’s output may be frequently revised. What are the implications for fiscal policy planning?

Bank Regulation and Supervision: A Crisis Update ... page 5

Analysis of new data finds that the regulatory responses to the global financial crisis have been quite slow

How Does Nationalizing Water Services Affect Quality? ... page 6

Should ownership of water suppliers be public or private? Evidence from Uruguay suggests that may be the wrong question

What Drives Investments under the Clean Development Mechanism? ... page 7

Do relative abatement costs determine project choices under the Clean Development Mechanism? Perhaps only in part

(continued on page 8)

Measuring Inequality of Opportunity

International comparisons of inequality of opportunity are now possible—but different indices tell very different stories

Public interest in inequality has boomed in recent years, as income disparities rose in some of the world's largest economies. Some of this interest arises from the perception that not only wages or household incomes have been growing apart. Along with inequality in outcomes, inequality of opportunity has also been growing, hampering fairness and economic dynamism.

Most of the empirical literature on the relationship between inequality of opportunity, income inequality, and economic growth has used measures of economic mobility—chiefly the intergenerational earnings elasticity—as a proxy for inequality of opportunity. In large part this is because until recently there was little agreement on how—or indeed whether—inequality of opportunity could be measured directly.

But in the past decade or so a number of indices to measure inequality of opportunity directly have been proposed, in two broad groups. Both sets of indices begin with a choice: the analyst must decide which income determinants individuals should *not* be held accountable for. Those characteristics, or circumstances, are used to partition

the population into *types*: groups of people with identical predetermined circumstances. After that, the two approaches diverge. *Ex ante measures* attribute a value to the opportunity set of each type and compute the inequality among those values. *Ex post measures* compare incomes in given quantiles of the income distributions (for example, the 17th percentile) across types, then aggregate the inequality over all quantiles.

Although both approaches have been used, only two indices—both in the *ex ante* family—have been applied to enough countries to permit reasonably meaningful international comparisons. One is the Inequality of Economic Opportunity index (IEO), which estimates the (lower bound) share of income inequality that can be attributed to differences in people's predetermined circumstances (such as race, gender, and family background). The valuation of the opportunity set facing each type is given by its observed mean income, and the inequality measure is computed with population weights. Computed for 41 countries, the index ranges from 2 percent of total inequality (Norway) to 34 percent (Guatemala).

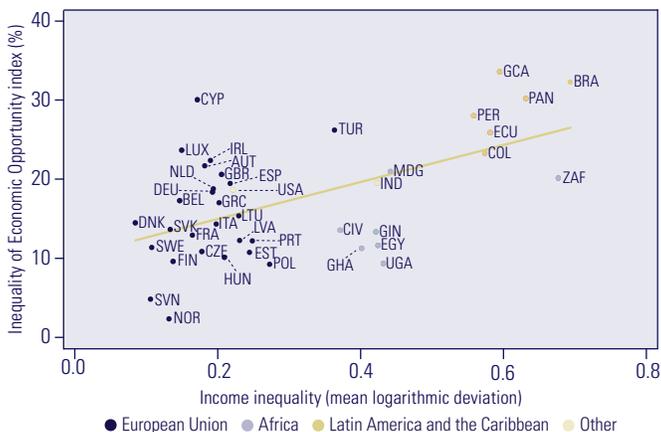
The second, the Human Opportunity Index (HOI), is an index of children's access to basic services, penalized by unequal opportunities in that access. Here, the valuation of each type's opportunity set is given by its

average access rate to a particular service, say, sanitation. The HOI is built as the product of a mean (access rate) and 1 minus an inequality index (the dissimilarity index, used as a measure of inequality of opportunity). Like the IEO, the HOI must lie between 0 and 100 percent. Computed for 39 countries, the HOI ranges from 10 percent (Niger) to 91 percent (Chile).

Although the two country samples are neither representative of the world as a whole nor fully comparable to each other, it is nevertheless clear that the two indices measure quite different things. The IEO is positively correlated with income inequality (figure 1) and negatively with intergenerational mobility, both in incomes and in years of schooling. It has an inverse U-shaped association with income per capita, reminiscent of the Kuznets curve. The HOI, on the other hand, is highly correlated with the Human Development Index. Its internal measure of inequality of opportunity—the dissimilarity index—yields very different country rankings than the IEO.

While related, the indices differ in at least two big ways. First, the HOI is a “welfare” or “development” index that *contains* a measure of inequality of opportunity, while the IEO is an inequality of opportunity measure, pure and simple. Second, they evaluate the opportunity set of each type in different spaces—incomes in one case and access to basic services in the other. The two indices are more likely to be useful complements than substitutes, so long as users understand what each one really captures.

Figure 1. Inequality of Opportunity and Income Inequality



Note: Correlation coefficient = 0.5230 (0.0004).

Paolo Brunori, Francisco H. G. Ferreira, and Vito Peragine. 2013. “Inequality of Opportunity, Income Inequality and Economic Mobility: Some International Comparisons.” Policy Research Working Paper 6304, World Bank, Washington, DC.

Breaking Out of the Middle-Income Trap

What have Malaysia and Thailand done in their education systems to support innovation-led growth—and what remains to be done?

Sustaining economic growth over the long term presents a great challenge for many countries. Countries tend to lose momentum in making the transition from middle- to high-income status. Indeed, of 101 middle-income economies in 1960, only 15 had become high income by 2010. Some analysts have opined that countries may risk falling into a “middle-income trap.”

Many factors determine which countries boost themselves from middle- to high-income status, such as sustained good governance that protects a sound investment climate. But a sound education system is almost always a vital ingredient. (A possible exception might be in resource-dependent countries.) Education can help spur innovations that enable a middle-income country to continue increasing productivity growth. A good education system is fundamental for equipping workers with marketable skills.

Investments in improving education should be aligned with the needs of an evolving economy. For example, the Republic of Korea phased in its public investments by focusing initially on basic education. As its skill needs progressed—first to more technical and then to managerial and creative domains—it turned its attention to strengthening secondary education and achieving world-class tertiary education.

What are the challenges for the fast-growing economies of East Asia as they strive to replicate such outcomes? In a recent paper Jimenez, Nguyen, and Patrinos examine two middle-income countries on the verge of becoming high income, Malaysia and Thailand. Their aim is to understand what has been done in the two countries’ education systems to support innovation-led growth—and what remains to be done next.

Malaysia and Thailand have successfully provided schooling access to children and young adults, particularly at primary levels—both achieved universal primary school enrollment in the 1980s. But quality remains an issue. Students in both countries score achievement levels well below international and OECD averages. Malaysian and Thai students on average score 1.2–1.5 standard deviations below Korean students in mathematics. Almost half of 15-year-old Thai students fail to achieve the level of functional literacy in the OECD’s Programme for International Student Assessment (PISA) results. Moreover, quality has deteriorated over time. For students in both countries, mean math scores from the Trends in International Mathematics and Science Study (TIMSS) declined between 1999 and 2007. For Thai students, reading performance in the PISA results has decreased since 2000; though there was a slight increase between 2006 and 2009, it was not enough to return to 2000 levels.

Improving quality requires reforms of the education system within each country’s economic and political context. Importing education policies from a country that successfully transitioned to high-income status, such as Korea, is unlikely to work, since Malaysia and Thailand have different economic structures than Korea did at a similar stage of its development. Based on their assessment, the authors suggest that the aim of education policies in the two countries should be to provide universally available, quality education by prioritizing budgets to focus on basic education before expanding higher levels of schooling; providing appropriate incentives and rewards to teachers; permitting school autonomy and ensuring accountability for results; and investing in early childhood development. Consideration could also be given to implementing

income-contingent loan financing schemes to expand higher education.

Each country has already taken some steps in these directions. For example, Thailand created its National Education Plan (2002–16) to promote a balance in educational development between economic competitiveness and cultural self-reliance. The government is committed to ensuring minimum quality standards for basic education for all and established a fast track for high-achieving students. The Office for National Education Standards and Quality Assessment is strengthening its capacity to monitor school quality assessments, to raise community awareness on school quality and management, and to propose actions for nonperforming schools. In addition, the Office of Basic Education Commission seeks to offer schools greater autonomy while empowering and motivating them to develop their own measures to improve students’ performance.

Malaysia has also recently taken some initiatives to address the quality of education, including the release of the National Education Blueprint and the Education National Key Result Areas. The future challenges are to implement them well and adjust them in accordance with evolving needs.

Education can help spur innovations that enable a middle-income country to continue increasing productivity growth

Emmanuel Jimenez, Vy Nguyen, and Harry Anthony Patrinos. 2012. “Stuck in the Middle? Human Capital Development and Economic Growth in Malaysia and Thailand.” *Policy Research Working Paper 6283*, World Bank, Washington, DC.

Real-Time Macro Monitoring and Fiscal Policy

Budgetary planning and fiscal surveillance are necessarily based on real-time estimates of output. When these are inaccurate, governments will miss fiscal targets and fiscal surveillance becomes less reliable

For budgetary planning and fiscal surveillance, it is imperative to correctly project and estimate the overall fiscal balance and the structural balance. The overall fiscal balance drives public debt dynamics and is therefore the main reference indicator in assessing fiscal sustainability. And the structural balance is key in fiscal surveillance because it separates the effect on the budget of temporary changes in the economic environment from the effect of discretionary policies.

However, fundamental data uncertainty, resulting in frequent output data revisions, may impede budgetary planning and fiscal surveillance. As new and better information becomes available, GDP figures are revised, so that real-time GDP figures rarely correspond to final GDP figures. In some cases output revisions are so large that governments do not know whether their country is in a recession or not, or whether growth is positive or negative.

Conceptually, there are several channels through which output revisions translate into revisions of real-time estimates of the overall and structural balances—that is, estimates made shortly before or even during the fiscal year to which they refer. First, changes in output automatically induce changes in the volume of public spending and revenue. Even if spending and revenue output elasticities are known with complete certainty, inaccurate real-time output growth estimates therefore mean that it is impossible to correctly estimate fiscal revenue and expenditure streams. Second, fiscal indicators are often reported as shares of GDP. As output revisions occur, the denominator of these ratios changes

as well. Third, decomposing the overall balance into the cyclical and structural balance requires estimates of the output gap (defined as the deviation of actual from potential output, as a percentage of potential output), and these too are subject to revision.

Inaccurate real-time output data can therefore be a major concern for fiscal policy. When output data revisions trigger revisions of the overall balance, governments inevitably miss deficit or surplus targets. Depending on the nature of the output data revisions, fiscal policy either will be too tight or will result in unplanned increases in debt relative to GDP. In addition, fiscal surveillance becomes considerably more difficult and less reliable, especially when estimates of the structural balance turn out to be inaccurate.

In a new paper Ley and Misch use real-time and final output data as well as the discrepancy between the two to simulate the effects of output data revisions on revisions of the overall balance and the structural balance as well as on unplanned debt accumulation or reduction. The authors use a novel data set derived from the International Monetary Fund's World Economic Outlook database, consisting of real-time output growth and gap data for 1991–2007 and final output data from 2012 for 169 countries. These data allow the authors to obtain for every country and every year during 1991–2007 real-time and final estimates of output growth and of the output gap. These estimates, together with a few assumptions on structural parameters, then enable the authors to compute revisions of fiscal balances and to simulate unplanned changes in the stock of public debt.

Under conservative assumptions, the authors' simulation results suggest that revisions of the overall balance and the structural balance may be substantial and significantly larger than 1 percent of GDP in more than 20 percent of the cases. Chances are similar that as a result of the revisions of the overall balance during a 10-year

period, the debt stock may decline or increase by more than 3 percent of GDP.

The advantage of this type of simulation exercise is that it makes it possible to evaluate the effects of one particular and potentially important cause of fiscal revisions and “switch off” all other factors that may play a role, in particular, strategic and political considerations. World Economic Outlook data are particularly suitable for the purposes of this exercise, because they are less likely to be subject to political interference and are available and comparable for a large number of countries (though governments of more advanced countries are more likely to use higher-frequency data from national sources for fiscal policy).

These features of the data make it possible to obtain credible measures of government ability (in contrast to government willingness) to correctly project fiscal balances. Thanks to the large number of country-year observations, the authors are able to draw general conclusions for different country groups. The results have important policy implications. For example, the results suggest that countries may deviate from fiscal plans even if governments are benevolent and want to stick to fiscal targets—important in the context of multilateral fiscal surveillance. The results also provide guidance on safety margins for fiscal contingency planning.

Eduardo Ley and Florian Misch. 2013. “Real-Time Macro Monitoring and Fiscal Policy.” *Policy Research Working Paper 6303*, World Bank, Washington, DC.

Bank Regulation and Supervision: A Crisis Update

Much room remains for further improvements in bank regulation and supervision as well as in incentives to monitor risk-taking

Bank regulation and supervision became the subject of vigorous debates during the global financial crisis. Many observers pointed out regulatory and supervisory weaknesses in the run-up to the crisis, and there were many policy discussions on the subject. But the discussions focused largely on a small number of major, mostly high-income, economies. And despite the many debates on the global regulatory framework, there has been a surprising lack of consistent and up-to-date information on the national regulatory and supervisory approaches pursued in countries around the world during the crisis. This lack of information led to important gaps in the understanding of what works in regulation and supervision and what does not.

With the publication of the World Bank's 2011–12 Bank Regulation and Supervision Survey, these gaps are now being filled. The data set, released together with the World Bank's *Global Financial Development Report 2013*, is the first to provide comprehensive data on regulation and supervision after the onset of the global financial crisis. It is an updated and expanded version of earlier surveys released in 2001, 2003, and 2007. This fourth iteration makes publicly available detailed data for 143 jurisdictions, covering everything from rules for entry into banking to deposit protection schemes, accounting and information disclosures, rules on capital and liquidity, and tools for dealing with problem institutions.

A recent paper by Čihák, Demirgüç-Kunt, Martínez Pería, and Mohseni-Cheraghrou uses the Bank Regulation and Supervision Survey data to explore differences between countries that were in the epicenter of the global financial crisis and those that managed to avoid a direct impact from the crisis. Based on a series of statistical

tests, the authors find that crisis countries had significantly weaker regulatory and supervisory frameworks than did countries that avoided a direct impact. The main differences are in four areas.

First, crisis countries tended to have significantly less stringent definitions of capital, and they gave banks more discretion in how they calculated capital requirements. Banks in crisis countries were allowed to use more complex approaches to measuring capital requirements, and they had lower actual capital ratios. These results are in line with the notion that overly complex regulations are difficult to monitor and enforce and ultimately contribute to financial instability.

Second, the analysis reveals that banks in crisis countries faced fewer activity restrictions. They were much less restricted from engaging in non-bank activities such as insurance, investment banking, and real estate. While this finding does not necessarily indicate that lack of restrictions is behind the crisis, it is consistent with the notion that weak incentives to monitor and greater risk-taking opportunities can be a dangerous combination.

Third, crisis countries were less likely to have in place nonperforming loan and provisioning requirements and were more lax in the treatment of bad loans and loan losses. In addition, regulators in crisis countries were less able to force corrective actions (such as recapitalization and suspension of bonuses) in distressed banks.

Fourth, crisis countries had stronger information disclosure requirements, but the incentives for the private sector to actually monitor banks' risks were relatively weaker. This is an important point: simply requiring banks to disclose their financial information does not help much if banks' counterparts lack strong incentives to use that information.

The authors also examine which

aspects of regulation and supervision changed the most rapidly during the crisis. They find that capital ratios increased, primarily among noncrisis countries. In addition, deposit insurance schemes became more generous, and many countries introduced reforms in areas of bank governance and bank resolution.

More generally, however, the main finding from the analysis is that the regulatory responses to the crisis have been quite slow and change has been gradual at best in most areas. The crisis did not trigger a major and sudden change in national regulatory and supervisory frameworks

around the world. This reflects both the complexity of the issues at hand and the political economy of financial reforms. While some of the measures adopted during the crisis (such as improvements in resolution regimes in some countries) are encouraging, others (such as extension of blanket guarantees and increased coverage of deposit insurance schemes) are less so. The results suggest substantial room for further improvements in regulation and supervision as well as in private incentives to monitor risk-taking.

Despite the vigorous policy debates, actual changes in bank regulation and supervision have been gradual at best

Martin Čihák, Asli Demirgüç-Kunt, Maria Soledad Martínez Pería, and Amin Mohseni-Cheraghrou. 2012. "Bank Regulation and Supervision around the World: A Crisis Update." Policy Research Working Paper 6286, World Bank, Washington, DC.

How Does Nationalizing Water Services Affect Quality?

A backlash to privatization in Uruguay's water sector led to nationalization. What were the effects on service quality?

Many publicly owned water monopolies have been characterized by poor performance and corruption, hampering the extension of services to those lacking them. More than one billion people in developing countries are without access to clean and safe water, and 40 percent of the world's population is without access to safe and clean sanitation services. A solution promoted by many international financial institutions in the 1990s was the privatization of water services. During that decade water services were privatized in many countries in Eastern Europe and Latin America and some in Asia and Sub-Saharan Africa.

But the involvement of the private sector in the provision of water is controversial. It is even more so when foreign multinationals are involved, because of the perception among many people that water is an issue of national sovereignty. Moreover, the privatization of water services did not always deliver on its promises. Large price hikes by private firms and episodes of colored water coming out of the tap led to popular unrest and reversals of water privatization in many Latin American countries in the early 2000s.

Uruguay is one country where there was such a backlash. A 2004 amendment to its constitution declared water to be part of the public domain and made private provision of water illegal. This constitutional amendment led to the nationalization of all private water supply companies in Uruguay—for reasons no different from those observed in other Latin American countries over the past decade. A new paper by Borraz, González Pampillón, and Olarreaga analyzes the effects of this decision on access to sanitation networks and the quality of water.

The authors' analysis of Uruguay's private-public provision of water is the

first such study to focus on an episode of nationalization and not just privatization. Their study is also interesting because household access to piped sewerage networks is particularly low in Uruguay compared with countries at similar levels of development. So ownership may have a more important impact on access than in other countries.

The existing empirical evidence on the effect of privatization on water quality, access, and child mortality tends to suggest a positive impact. Sebastian Galiani, Paul Gertler, and Ernesto Schargrotsky provide convincing evidence that in Argentine municipalities where water services were privatized, the incidence of child mortality from water-related diseases declined significantly ("Water for Life: The Impact of the Privatization of Water Services on Child Mortality," *Journal of Political Economy* 113 [2005]: 83–120). They therefore provide indirect evidence of improvements in water quality and access.

The authors of the Uruguay study follow a similar empirical methodology. Using panel data around the nationalization episode, they identify differences in sanitation rates, water quality indicators, and water-related child mortality between regions that first privatized and later nationalized their water suppliers and those in which water suppliers were always under public ownership. To correct for unobservable differences, the authors use a differences-in-differences estimator as well as time- and region-varying control variables, such as rainfall, average household education, and average income per capita.

The results suggest that the nationalization of water services had a positive and statistically significant impact on access to the sanitation network, particularly among the poorest households. By contrast, the earlier privatization of water services had no impact on access to water services.

Nationalization also seems to have led to an improvement in water quality. Indeed, the impact of nationalization on the detection of abnormal

levels in microbiological and inorganic water tests is always negative and has a relatively large coefficient.

While it may be tempting to conclude from these results that the public sector can perform as well as or better than the private sector, this conclusion cannot be reached on the basis of the authors' empirical evidence. Indeed, the inclusion of cities that had always been served by public companies in the authors' control group makes it impossible to answer that question.

What the results do suggest is that the privatization of water companies had little impact on network access, confirming the public opinion that privatization failed to keep its promises. But the subsequent nationalization of water companies led to improvements in both network access and water quality relative to the performance of companies that had always been publicly owned. This goes against most of the existing evidence for developing countries, which generally shows that water privatization leads to a higher quality of service.

Thus in Uruguay public operators appear to have provided services of equal if not better quality than those previously provided by private firms. This seems to suggest that in the debate over provision of water or other natural monopoly services, the focus on whether ownership should be public or private may be misleading.

Fernando Borraz, Nicolás González Pampillón, and Marcelo Olarreaga. 2013. "Water Nationalization and Service Quality." *Policy Research Working Paper 6318*, World Bank, Washington, DC.

What Drives Investments under the Clean Development Mechanism?

In choosing projects under the Clean Development Mechanism, investors appear to be weighing more than the relative abatement costs

The Clean Development Mechanism (CDM) emerged late in the final stages of negotiations of the Kyoto Protocol. Arguably the least loved of the protocol's market mechanisms, the CDM is the single conduit through which industrial countries that had pledged to limit their greenhouse gas emissions could tap mitigation opportunities in developing countries that had not. While there was a consensus view among scientists and social scientists that mitigation opportunities in developing countries were abundant and that private sector capital would be needed to make use of them, many observers were deeply skeptical that the project-based CDM could deliver real and significant environmental benefits. Optimism and the potential advantages of the CDM drove the postconference rule-making forward, but skepticism and the technical challenges of safeguarding the environmental integrity of CDM projects slowed the process. Consequently, while the broad outlines of the program formed quickly, the details were left unfinished until the 2001 Marrakesh Accords.

Before its launch, much effort went into understanding how the CDM might perform and modeling its likely impact. Predictions about how much investment it would leverage and how much mitigation it would achieve ranged widely. But there was an accepted assumption that investments would be driven primarily by relative abatement costs—that is, the cost of reducing emissions by switching to alternative technologies or by trapping greenhouse gases in soils or plants. Indeed, most estimates of the mechanism's potential, including those used by the Intergovernmental Panel on Climate Change, were based on sets of abatement schedules that mapped the relationship between levels of

mitigation and the price of carbon. These were either built up from the bottom using firm data or estimated top down from country and sector characteristics.

In a recent paper Rahman, Larson, and Dinar examine this basic premise that relative abatement costs drive CDM investments. Using data from more than 6,000 CDM projects, they found significant variation in the costs of abatement by type and location of the projects. Surprisingly, however, they found little evidence that the per-unit costs of generating certified emission reductions were lower in the places where investments most often took place. Similarly, the types of projects that were more common and that attracted greater investment were not those associated with lower per-unit production costs. In addition to the aggregate analysis, the authors examined three countries—Brazil, China, and India, each of which hosts a large number of projects—and found that there too investments were not concentrated in projects with the lowest per-unit costs.

The authors offer several possible explanations. They speculate that the lowest-cost opportunities identified in the early analysis may have been fully exploited and that investors have therefore moved on to higher-cost alternatives. And they note the possibility that the methodology used to calculate project costs is incomplete and that improved data and methods might reverse the findings.

But the authors favor an alternative explanation based on the view that observable project costs and total project costs differ significantly. These differences arise in part because of differences in policy. The cost of doing business is higher in some countries than in others, and some countries have invested more heavily in the institutions that facilitate CDM projects. In addition, CDM projects are expected to deliver abatement in combination with safeguards that ensure that the projects' environmental benefits are real. Marketable credits are issued by the

CDM board only when an inspection and evaluation process is complete, and different types of projects come with different methodologies for verifying abatement claims. Differences in the costs of implementing the methodologies are captured in the cost data, but perceived differences in success rates among the methodologies are not.

In addition, the volume of credits earned for CDM projects often depends on underlying businesses that generate their own outputs and income streams. The secondary project output is most often electricity, but the pool of projects contains a diverse set of activities, including the treatment of potent industrial gases, by-products of manufacturing processes, and the management of organic runoff from starch factories. Consequently, a set of risks related to the underlying business can directly affect the outcome of planned abatement activities. In turn, these heterogeneous risks, which also go unmeasured in the cost data, affect how investors value the projects.

Taken together, there are good reasons to believe that the cost of abatement is an important but partial determinant of the value of a CDM project to investors, and the study supports this view. As the second commitment period of the Climate Change Treaty begins, it will be important for policy makers, responsible for shaping future agreements and the institutions that support carbon markets, to distinguish between transactions costs reflecting poor policies and weak institutions and hard-to-measure valuation differences rooted in project characteristics.

(continued from page 1)

Figure 1. Policy Framework for Urbanization

Planning	Connecting	Financing
<ul style="list-style-type: none"> Value the city's land by establishing systematic and transparent assessment Coordinate land management with infrastructure, natural resources, and hazard risk Leverage competitive markets alongside regulation to expand basic infrastructure 	<ul style="list-style-type: none"> Value the city's external and internal connections Coordinate among transport options and with land use Leverage investments that will generate the largest returns—individually and collectively 	<ul style="list-style-type: none"> Value and develop the city's creditworthiness Coordinate public and private finance using clear and consistent rules Leverage existing assets to develop new ones, linking both to land use planning

demand for the city is changing with economic development, what the pace of new arrivals is in the city, and how these new arrivals are finding places to live and commuting to their jobs. It then compares the city's observed patterns with benchmarks in other places or with past conditions. Such comparisons help reveal how policy distortions constrain urbanization and how investment shortfalls restrict the benefits from it.

The report uses examples from the seven countries where it carried out detailed urbanization reviews (Brazil, China, Colombia, India, Indonesia, Korea, and Vietnam). For example, coordinating public and private finance is recommended but requires clear rules. Ghana encouraged public-private partnerships in the urban water sector starting in 2002, but lack of transparency and accusations of corruption

very quickly led to their demise. Land use policies need to be aligned with infrastructure plans, such as for public transit. In Tunisia the national upgrading program reduced slum housing from 23 percent of the housing stock in 1975 to 2 percent in 1995.

Once the diagnostic review has identified the possible constraints and shortfalls, it proposes policy options. It aims to show how a city can harness economic and social benefits not just today but in the future, as economies grow, technologies change, and institutions are strengthened.

World Bank. 2013. Planning, Connecting, and Financing Cities—Now: Priorities for City Leaders. Washington, DC: World Bank. Report prepared by Somik V. Lall, with Om Prakash Agarwal, Michael Klein, Nancy Lozano Gracia, and Hyoung Gun Wang.

Recent Policy Research Working Papers

6335	Structural Change and Cross-Country Growth Empirics <i>Markus Eberhardt and Francis Teal</i>
6336	Political Reforms and Public Policy: Evidence from Agricultural and Food Policies <i>Alessandro Olper, Jan Falkowski, and Johan Swinnen</i>
6337	Intrahousehold Bargaining and Resource Allocation in Developing Countries <i>Cheryl Doss</i>
6338	Does Urbanization Affect Rural Poverty? Evidence from Indian Districts <i>Massimiliano Cali and Carlo Menon</i>
6339	Buying Votes vs. Supplying Public Services: Political Incentives to Under-Invest in Pro-Poor Policies <i>Stuti Khemani</i>
6342	Achieving Medium Term Expenditure Framework Reform: A Case Study of Korea <i>Jae-Young Choi and Nowook Park</i>
6343	How Subjective Beliefs about HIV Infection Affect Life-Cycle Fertility: Evidence from Rural Malawi <i>Gil Shapira</i>
6346	Is Foreign Aid Fungible? Evidence from the Education and Health Sectors <i>Nicolas Van de Sijpe</i>
6349	Service Sector Reform and Manufacturing Productivity: Evidence from Indonesia <i>Victor Duggan, Sjamsu Rahardja, and Gonzalo Varela</i>
6351	How Much International Variation in Child Height Can Sanitation Explain? <i>Dean Spears</i>
6352	Government Connections and Financial Constraints: Evidence from a Large Representative Sample of Chinese Firms <i>Robert Cull, Wei Li, Bo Sun, and Lixin Colin Xu</i>
6354	Productivity, Innovation and Growth in Sri Lanka: An Empirical Investigation <i>Mark A. Dutz and Stephen D. O'Connell</i>
6355	Vietnam's Evolving Poverty Map: Patterns and Implications for Policy <i>Peter Lanjouw, Marleen Marra, and Cuong Nguyen</i>

Working Papers can be downloaded at <http://econ.worldbank.org>. To download the *World Bank Research E-Newsletter*, go to Data & Research at <http://www.worldbank.org>

The World Bank Research Digest is a quarterly publication disseminating findings of World Bank research. The views and interpretations in the articles are those of the authors and do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

The Research Digest is financed by the Bank's Research Committee and managed by DECRS, the research support unit of the Development Economics Senior Vice Presidency (DEC). The Research Digest is not copyrighted and may be reproduced with appropriate source attribution.

Editorial Committee: Jean-Jacques Dethier (managing editor) and Asli Demirgüç-Kunt. Research assistance: Alexander Moore; editor: Alison Strong; production: Roula Yazigi. For information or free subscriptions, send email to research@worldbank.org or visit http://econ.worldbank.org/research_digest.



The World Bank
1818 H Street, NW
Washington, DC 20433, USA