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## Public sector management

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2363. Would Collective Action Clauses Raise Borrowing Costs? An Update and Additional Results

Barry Eichengreen and Ashoka Mody (June 2000)

Collective action clauses raise borrowing costs for low-rated borrowers and lower them for high-rated borrowers. This result holds for all developing country bonds and also for the subset of sovereign bond issuers.

It is easy to say that the International Monetary Fund should not resort to financial rescue for countries in crisis; this is hard to do when there is no alternative. That is where collective action clauses come in.

Collective action clauses are designed to facilitate debt restructuring by the principals — borrowers and lenders — with minimal intervention by international financial institutions.

Despite much discussion of this option, there has been little action. Issuers of bonds fear that collective action clauses would raise borrowing costs.

Eichengreen and Mody update earlier findings about the impact of collective action clauses on borrowing costs. It has been argued that only in the past year or so have investors focused on the presence of these provisions and that, given the international financial institutions' newfound resolve to "bail in" investors, they now regard these clauses with trepidation.

Extending their data to 1999, Eichengreen and Mody find no evidence of such changes but rather the same pattern as before: Collective action clauses raise the costs of borrowing for low-rated issuers but reduce them for issuers with good credit ratings.

Their results hold both for the full set of bonds and for bonds issued only by sovereigns.

They argue that these results should reassure those who regard collective action clauses as an important element in the campaign to strengthen international financial architecture.

This paper — a product of the Development Prospects Group — is part of a larger effort in the group to analyze international capital flows. The study was funded by the Bank's Research Support Budget under the research project "Pricing of Bonds and Bank Loans in the Market for Developing Country Debt." Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Syndella Kpundeh, room MC2-325, telephone 202-473-9591, fax 202-522-2578, email address skpundeh@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at eichengr@econ.berkeley.edu or amody@worldbank.org. (16 pages)

2364. Perverse Effects of a Ratings-Related Capital Adequacy System

Patrick Honohan (June 2000)

Allowing banks to hold less capital against loans to borrowers who have received a favorable rating by an approved rating agency may result in a rating system that neither reveals risk information about borrowers nor protects the deposit insurance fund. Part of the problem is the very idea of basing portfolio risk evaluation on the sum of individual loan risks, but there are also important incentive issues.

It has recently been proposed that banks be allowed to hold less capital against loans to borrowers who have received a favorable rating by an approved rating agency. But a plausible model of rating-agency behavior shows that this strategy could have perverse results, actually increasing the risk of deposit insurance outlays.

First, there is an issue of signaling, with low-ability borrowers possibly altering their behavior to secure a lower capital requirement for their borrowing.

Second, establishing a regulatory cutoff may actually reduce the amount of risk information made available by raters.

Besides, the credibility of rating agencies may not be damaged by neglect of the risk of unusual systemic shocks, although deposit insurers greatest outlays come chiefly at times of systemic crisis. And using agencies' individual ratings is unlikely to be an effective early-warning system for the risk of systemic failure, so use of the ratings could lull policymakers into a false sense of security.

It is important to harness market information to improve bank safety (for example, by increasing the role of large, well-informed, but uninsured claimants), but this particular approach could be counterproductive. Relying on ratings could induce borrowers to increase their exposure to systemic risk even if they reduce exposure to specific risk.

This paper — a product of Finance, Development Research Group — is part of a larger effort in the group to examine the effects of financial sector regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-8526, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at phonohan@worldbank.org. (14 pages)

2365. Leading Indicator Project: Lithuania

Stephen S. Everhart and Robert Duval-Hernandez (June 2000)

A method for forecasting growth cycles in economic activity (measured as total industrial production), as applied to Lithuania.

Everhart and Duval-Hernandez present a method for forecasting growth cycles in economic activity, measured as total industrial production.

They construct a series which they aggregate into a composite leading indicator to predict the path of the economy in Lithuania.

The cycle is the result of the economy's deviations from its long-term trend. A contractionary phase means a decline in the growth rate of the economy, not necessarily an absolute decline in economic activity.

The indicator they select for economic activity is usually the Index of Industrial Production, plus a group of variables that, when filtered and adjusted, becomes the composite leading indicator that forecasts the reference series. Variables include economically and statistically significant financial, monetary, real sector, and business survey data.

They base selection of the components of the leading indicator on the forecast efficiency and economic significance of the
series. Once selected, the relevant variables are aggregated into a single composite leading indicator, which forecasts the detrended Index of Industrial Production.

They apply the Hodrick-Prescott filter method for detrending the series. This is a smoothing technique that decomposes seasonally adjusted series into cyclical and trend components. One advantage of the Hodrick-Prescott filter is that it provides a reasonable estimate of a series' long-term trend.

The OECD uses a system of leading indicators to predict growth cycles in the economies of its member countries. These exercises have been very effective in their forecasting ability and accuracy — but for the technique to work it is essential to have an adequate statistical system that provides many economic variables in a precise and timely manner, preferably monthly. The authors extend the OECD technique and present an application to a country of the former Soviet Union.


2366. Fiscal Constraints, Collection Costs, and Trade Policies

Keiko Kubota (June 2000)

Empirical evidence supports the hypothesis that when tariffs and export taxes are important sources of revenue for developing countries, and when those countries have narrow tax bases and high tax rates, trade liberalization will come about when the governments diversify their revenue sources through efficiency-enhancing, revenue-increasing tax reform.

That free trade allows economies in an ideal world to achieve the greatest possible welfare is one of the few undisputed propositions in economics. In reality, however, free trade is rare.

Kubota argues that many developing countries intervene in trade at least partly to raise revenues and that episodes of trade liberalization are often linked to tax reform.

She proposes a formal model to explain why developing countries rely disproportionately on tariffs for government revenues, when tax reforms are expected, and under what conditions trade liberalization will take place.

The model uses the simple concept of the fixed costs involved in tax collection. When fiscal needs are limited and the infrastructure to monitor, administer, and collect taxes is not well-developed, it is optimal for governments to rely on a handful of easy-to-collect taxes, which generally includes trade taxes.

When fiscal needs expand, the excess burden on the tax base grows rapidly, and tax reform becomes necessary. Tax reforms reduce reliance on the existing tax base, often allowing the statutory tax rate to be lowered. This is a form of trade liberalization when it involves the trade sector.

Kubota defines trade liberalization in a somewhat unconventional way: only reductions in the rates at which the trade sector is taxed are considered trade liberalization. Tarification of quotas, normally considered a form of trade liberalization, is treated as tax reform (expanding the tax base).

Kubota tests this hypothesis empirically, first through three historic case studies (Bolivia, Jamaica, and Morocco) and then through systematic econometric analysis. She constructs a set of panel data for 38 developing countries for 1980-92, using the statutory tariff rates published by UNCTAD.

She uses empirical tests to isolate the cause of trade liberalization. The results support her hypothesis: tariff rates are positively related to fiscal shocks and negatively associated with episodes of tax reform.

This paper — a product of Trade, Development Research Group — is part of a larger effort in the group to investigate the role of trade taxes in government revenues in developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at kkubota@worldbank.org. (33 pages)

2367. Gender, Poverty, and Nonfarm Employment in Ghana and Uganda

Constance Newman and Sudharshan Canagarajah (June 2000)

For women in Ghana and Uganda, nonfarm activities play an important role in yielding the lowest — and the most rapidly declining — rural poverty rates. In both countries rural poverty declined fastest for female heads of household engaged in nonfarm work (which tended to be a secondary activity). But patterns vary between the two countries.

Newman and Canagarajah provide evidence that women's nonfarm activities help reduce poverty in two economically and culturally different countries, Ghana and Uganda.

In both countries rural poverty rates were lowest — and fell most rapidly — for female heads of household engaged in nonfarm activities.

Participation in nonfarm activities increased more rapidly for women, especially married women and female heads of household, than for men.

Women were more likely than men to combine agriculture and nonfarm activities. In Ghana it was nonfarm activities (for which income data are available) that provided the highest average incomes and the highest shares of income.

Bivariate probit analysis of participation shows that in Uganda female heads of household and in Ghana women in general are significantly more likely than men to participate in nonfarm activities and less likely to participate in agriculture.

This paper — a joint product of Rural Development, Development Research Group, and the Social Protection Team, Human Development Network — is part
of a larger effort in the Bank to discuss
gender, employment, and poverty link-
ages. Copies of the paper are available free
from the World Bank, 1818 H Street NW,
Washington, DC 20433. Please contact
Melvina Clarke, room G8-118, telephone
202-473-1752, fax 202-522-3252, email
address mclarke@worldbank.org. Policy
Research Working Papers are also posted
on the Web at www.worldbank.org/re-
search/workingspapers. The authors may
be contacted at cnewmanl@worldbank.
org or scanagarajah@worldbank.org. (50
pages)

2368. Seeds of Corruption:
Do Market Institutions Matter?

Harry G. Broadman and Francesca Recanatini
(June 2000)

Economists in the field of industrial orga-
nization, antitrust, and regulation have long
recognized certain factors as potent
determinants of opportunistic behavior,
corruption, and "capture" of government
officials. Only now are these relationships
becoming conventional wisdom among
specialists in economies in transition.

Ten years into the transition, corruption
is so pervasive that it could jeopardize the
best-intentioned reform efforts. Broadman
and Recanatini present an analytical
framework for examining the role market
institutions play in rent-seeking and illicit
behavior. Using recently available data on
the incidence of corruption and on insti-
tutional development, they provide pre-
liminary evidence on the link between the
development of market institutions and
incentives for corruption.

Virtually all of the indicators they ex-
amine appear to be important, but three
are statistically significant:

• The intensity of barriers to the entry
  of new business.
• The effectiveness of the legal system.
• The efficacy and competitiveness
  of services provided by infrastructure
  monopolies.

The main lesson emerging from their
analysis: a well established system of
market institutions - clear and transpar-
ent rules, fully functioning checks and
balances (including strong enforcement
mechanisms), and a robust competitive
environment - reduces opportunities for
rent-seeking and hence incentives for
corruption.

Both the design and effective implementa-
tion of such measures are important if
a market system is to be effective. It is not
enough, for example, to enact first-rate
laws if they are not enforced.

The local political economy greatly af-
teffects whether a given policy reform will
curtail corruption. Especially important
are the following factors in the political
economy:

• The credibility of the government's
  commitment to carrying out announced
  reforms.
• The degree to which government
  officials are captured by the entities they
  regulate or oversee.
• The stability of the government itself.
• The political power of entrenched
  vested interests.

Economists in the field of industrial
organization, antitrust, and regulation
have long recognized these factors as
potent determinants of opportunistic
behavior, corruption, and "capture" of
government officials. Only now are
they becoming conventional wisdom
among specialists in economies in transition.

This paper - a product of the Poverty
Reduction and Economic Management
Sector Unit, Europe and Central Asia
Region - is part of a larger effort in the
region to analyze the determinants of
corruption and develop remedies. Copies
of the paper are available free from the
World Bank, 1818 H Street NW, Washing-
ton, DC 20433. Please contact Sandra
Craig, room H4-166, telephone 202-473-
3160, fax 202-522-2753, email address
scrata@worldbank.org. Policy Research
Working Papers are also posted on the
Web at www.worldbank.org/research/
workingpapers. The authors may be con-
tacted at hbroadman@worldbank.org or
freccatini@worldbank.org. (31 pages)

2369. How the Proposed Basel
Guidelines on Rating-Agency
Assessments Would Affect
Developing Countries

Giovanni Ferri, Li-Gang Liu,
and Giovanni Majnoni
(June 2000)

The Basel Committee has proposed link-
ing capital asset requirements for banks
to the banks' private sector ratings. Doing
so would reduce the capital requirements
for banks that lend prudently in high-in-
come countries; the same incentives would
not apply in developing countries.

Using historical data on sovereign and
individual borrowers, Ferri, Liu, and
Majnoni assess the potential impact on
non-high-income countries of linking capi-
tal asset requirements for banks to private
sector ratings, as the Basel Committee has
proposed.

They show that linking banks' capital
asset requirements to external ratings
would have undesirable effects for develop-
ing countries.

First, ratings of banks and corporations
in developing countries are less common,
so capital asset requirements would be
practically insensitive to improvements in
the quality of assets — widening the gap
between banks of equal financial strength
in higher- and lower-income countries.

Second, bank and corporate ratings in
developing countries (unlike their coun-
trymates in high-income countries) are
strongly linked to the sovereign ratings for
the country — and appear to be strongly
related (asymmetrically) to changes in the
sovereign ratings. A sovereign downgrad-
ing would bring greater changes in capi-
tal allocations than an upgrading, and
would call for larger capital requirements
at the very time access to capital markets
was more difficult.

Under the new guidelines, capital re-quirements in developing countries would
thus be exposed to the cyclical swings asso-
ciated with the revision of sovereign
ratings in recent crises.

Ultimately, linking banks' capital asset
requirements to private sector ratings
would reduce the credit available to non-
high-income countries and make it more
costly, limiting economic activity. Bank
capital needs in developing countries
would be more volatile than those in high-
income countries.

These findings suggest that the Basel
Committee should reassess the role it pro-
poses assigning to external ratings, to
minimize the detrimental impact of the
regulatory use of such ratings on develop-
ing countries.

This paper - a product of the Financial
Sector Strategy and Policy Department —
is part of a larger effort in the depart-
ment to study the impact of financial regula-
tion on economic development. Copies of
the paper are available free from the World
Bank, 1818 H Street NW, Washington, DC
20433. Please contact Elena Mekhova,
room MC9-622, telephone 202-458-5984,
This paper — a product of the Mexico Country Department and Poverty Reduction and Economic Management Sector Unit, Latin America and the Caribbean Region — is part of a larger effort in the region to understand the subnational underpinnings of sustainable, national economic framework. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room 14-142, telephone 202-458-5155, fax 202-522-2093, email address mgeller@worldbank.org, Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at mgiugale@worldbank.org, akorobow@worldbank.org, or swebb@worldbank.org. (15 pages)

2371. Shock Persistence and the Choice of Foreign Exchange Regime: An Empirical Note from Mexico

Marcelo Giugale and Adam Korobow (July 2000)

Empirical econometric evidence shows that Mexico’s simulated output recovery after a negative external shock was faster (a third as long) when the country’s policymakers let the nominal foreign exchange rate float than when they fixed it, and much faster than in other developing countries that kept nominal foreign exchange rates constant, especially those that resorted to currency board arrangements to support that constancy.

The academic and policy debate about optimal foreign exchange rate regimes for emerging economies has focused more on the theoretical costs and benefits of possible regimes than on their actual performance.

Giugale and Korobow report on what can be called exchange-rate-regime-dependent differential shock persistence—that is, the time output takes to return to its trend after a negative shock—in a sample of countries representing various points on the spectrum of nominal foreign exchange flexibility.

They find strong evidence that Mexico’s simulated output recovery after a negative external shock was faster (a third as long) when the country’s policymakers let the nominal foreign exchange rate float than when they fixed it, and much faster than in other developing countries that kept nominal foreign exchange rates constant, especially those that resorted to currency board arrangements to support that constancy.

These results are insufficient to guide the choice of regime (they lack general equilibrium value and are based on a limited sample of countries), but they highlight an important practical consideration in making that choice: How long it takes for output to adjust after negative shocks is sensitive to the level of rigidity of the foreign exchange regime. This factor may be critical when the social costs of those adjustments are not negligible.

This paper—a product of the Mexico Country Department, Latin America and the Caribbean Region—is part of a larger effort in the region to understand policy options open to developing countries for handling macroeconomic volatility in a globalized economy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room 14-142, telephone 202-458-5155, fax 202-522-2093, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at mgiugale@worldbank.org, or swebb@worldbank.org. (15 pages)

2372. Financial Openness, Democracy, and Redistributive Policy

Mansoor Dailami (June 2000)

What explains the spread of both democracy and financial openness at this time in history, given the constraining impact of financial market integration on national policy autonomy? International policy coordination is part of the answer, but not all. Also important is the presence of cost-effective redistributive schemes that provide insurance against the risk of financial instability.

The debate about the relationship between democratic forms of government and the free movement of capital across borders dates to the 18th century. It has regained prominence as capital on a massive scale has become increasingly mobile
and as free economies experience continuous pressure from rapidly changing technology, market integration, changing consumer preferences, and intensified competition.

These changes imply greater uncertainty about citizens' future income positions, which could prompt them to seek insurance through the marketplace or through constitutionally arranged income redistribution.

As more countries move toward democracy, the availability of such insurance mechanisms to citizens is key if political pressure for capital controls is to be averted and if public support for an open, liberal international financial order is to be maintained.

Dailami briefly reviews how today's international financial system evolved from one of mostly closed capital accounts immediately after World War II to today's enormous, largely free-flowing market.

Drawing on insights from the literature on public choice and constitutional political economy, Dailami develops an analytical framework for a welfare cost-benefit analysis of financial openness to international capital flows. The main welfare benefits of financial openness derive from greater economic efficiency and increased opportunities for risk diversification. The welfare costs relate to the cost of insurance used as a mechanism for coping with the risks of financial volatility. These insurance costs are the economic losses associated with redistribution, including moral hazard, rent-seeking, and rent-avoidance.

A cross-sectional analysis of a large sample of developed and developing countries shows the positive correlation between democracy (as defined by political and civil liberty) and financial openness. More rigorous econometric investigation using logit analysis and controlling for level of income also shows that redistributive social policies are key in determining the likelihood that countries can successfully combine an openness to international capital mobility with democratic forms of government.

This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a broader research effort on "The Quality of Growth." Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact William Nedrow, room J3-283, telephone 202-473-1585, fax 202-334-8350, email address wnedrow@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at mdailami@worldbank.org. (31 pages)

2373. Reciprocity across Modes of Supply in the World Trade Organization: A Negotiating Formula

Aaditya Mattoo and Marcelo Olarreaga (June 2000)

If negotiations on trade in services at the World Trade Organization are to advance liberalization beyond levels undertaken unilaterally and lead to more balanced outcomes, reciprocity must play a greater role in negotiations. This may be facilitated by the use of negotiating rules that establish credible links across sectors and modes of delivery.

Negotiations on trade in services at the World Trade Organization (WTO) have so far produced little liberalization beyond levels countries have undertaken unilaterally. One reason: limited application of the traditional negotiating principle of reciprocity.

In particular, participants have failed to exploit the scope of the services agreement (GATS) for the exchange of market-access "concessions" across different modes of supply—cross-border delivery and the movement of capital and workers. Using the Heckscher-Ohlin-Vanek framework, Mattoo and Olarreaga propose a negotiating formula that generalizes the fundamental WTO principle of reciprocity to include alternative modes of delivery.

Adoption of this formula as a basis for negotiations could bring greater commitments to liberalization on all modes of delivery, producing substantial gains in global welfare and more balanced outcomes.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to improve trade policy in goods and services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at amattoo@worldbank.org or molarreaga@worldbank.org. (18 pages)

2374. Should Credit Be Given for Autonomous Liberalization in Multilateral Trade Negotiations?

Aaditya Mattoo and Marcelo Olarreaga (June 2000)

As each new round of multilateral trade negotiations approaches, there is a demand for a negotiating rule that would give credit for previous unilateral liberalization. The feasibility and desirability of such a rule depend on when it is instituted.

As each new round of multilateral trade negotiations approaches, there is a demand for a negotiating rule that would give credit for autonomous (unilateral) liberalization. Mattoo and Olarreaga show that the feasibility and desirability of such a rule depend on when it is instituted.

A credit rule established at the beginning of a round of negotiations has a primarily distributional effect, favoring those who have already undertaken liberalization. Implementing such a rule would depend on the generosity of those who have not liberalized.

The authors propose instead establishing a credit rule at the end of a round of negotiations, which creates an ex ante assurance that any unilateral liberalization will receive credit in the next round. Such a rule would help induce or enhance liberalization in some countries between negotiating rounds by reducing the gains from retaining protection as negotiating currency.

More strikingly, it could also lead to deeper levels of multilateral liberalization and induce other countries to go further than they would in the absence of a rule.

Most important, such an ex ante rule would not rely on altruism to be generally acceptable.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to improve trade policy in goods and services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at amattoo@worldbank.org or molarreaga@worldbank.org. (18 pages)
Policymakers addressing the impact of inequality on growth should be more concerned about households' access to assets — and to the opportunities associated with them — than about the distribution of income. Asset inequality — but not income inequality — has a relatively great negative impact on growth and also reduces the effectiveness of educational interventions.

With the recent resurgence of interest in equity, inequality, and growth, the possibility of a negative relationship between inequality and economic growth has received renewed interest in the literature. Faced with the prospect that high levels of inequality may persist and give rise to poverty traps, policymakers are paying more attention to the distributional implications of macroeconomic policies. Because high levels of inequality may hurt overall growth, policymakers are exploring measures to promote growth and equity at the same time.

How the consequences of inequality are analyzed, along with the possible cures, depends partly on how inequality is measured. Deininger and Olinto use assets (land) rather than income — and a GMM estimator — to examine the robustness of the relationship between inequality and growth that has been observed in the cross-sectional literature but has been drawn into question by recent studies using panel techniques.

They find evidence that asset inequality — but not income inequality — has a relatively large negative impact on growth.

They also find that a highly unequal distribution of assets reduces the effectiveness of educational interventions.

This means that policymakers should be more concerned about households' access to assets, and to the opportunities associated with them, than about the distribution of income.

Long-term growth might be improved by measures to prevent large jumps in asset inequality — possibly irreversible asset loss because of exogenous shocks — and by policies to facilitate asset accumulation by the poor.

This paper — a product of Rural Development, Development Research Group — is part of a larger effort in the group to examine the determinants and impact of inequality. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Fernandez, room MC3-508, telephone 202-473-3766, fax 202-522-1151, email address mfernandez2@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at kdeininger@worldbank.org or pointo@worldbank.org. (32 pages)

2376. The Effect of Early Childhood Development Programs on Women's Labor Force Participation and Older Children's Schooling in Kenya

Michael M. Lokshin, Elena Glinskaya, and Marito Garcia

(June 2000)

Economic incentives have a powerful effect on the work behavior of women with children in Kenya. In addition to increasing the future productivity of children, government subsidies of low-cost early childhood development programs would increase the number of mothers who work, thus increasing the incomes of poor households and lifting some families out of poverty. They would also increase older girls' enrollment in school, by releasing them from child care responsibilities.

About 20,000 early childhood development centers provided day care for and prepared for primary school more than 1 million children aged three to seven (roughly 20 percent of children in that age group) in Kenya in 1995. The number of child care facilities reached 23,690 by the end of 1999.

Lokshin, Glinskaya, and Garcia analyze the effect of child care costs on households' behavior in Kenya. For households with children aged three to seven, they model household demand for mothers' participation in paid work, the participation in paid work of other household members, household demand for schooling, and household demand for child care. They find that:

- A high cost for child care discourages households from using formal child care facilities and has a negative effect on mothers' participation in market work.
- The cost of child care and the level of mothers' wages affect older children's school enrollment, but these factors affect boys' and girls' schooling differently. An increase in mothers' wages increases boys' enrollment but depresses girls' enrollment.
- Higher child care costs have no significant effect on boys' schooling but significantly decrease the number of girls in school.

This paper — a joint product of Poverty and Human Resources, Development Research Group; Poverty Reduction and Economic Management Sector Unit, South Asia Region; and Human Development 1, Africa Technical Families — is part of a larger effort in the Bank to study the role of gender in the context of the household, institutions, and society. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-632, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at mlokshin@worldbank.org, eglinskaya@worldbank.org, or mgarcia1@worldbank.org. (35 pages)

2377. Reforming the Water Supply in Abidjan, Côte d'Ivoire: Mild Reform in a Turbulent Environment

Claude Ménard and George Clarke

(June 2000)

The success of Abidjan's water sector is attributable to the government's consistent support for private sector participation in the sector and to the institutions that have guaranteed the private operator's property rights. Strong institutions with adequate human capital allow the government to supervise the private operator and monitor the contractual arrangement well, at least by regional standards.

Compared with other urban water systems in West Africa, the water supply
system in Abidjan performs very well. Documenting the recent history of that system, Ménard and Clarke try to answer three questions: What motivated reform in a system that was already performing well? How and why did the reform affect sector performance, and what additional changes might improve performance further? And what explains the relatively strong performance of Abidjan’s water system? Is the success attributable primarily to an efficient contractual arrangement or more generally to Côte d’Ivoire’s institutional environment?

In a region plagued by political instability, Ivorian political institutions were remarkably stable for close to 40 years. In part, the success of the Ivorian model is the result of these institutions’ stability and credibility.

The single-party system in place at the time of reform might suggest that there were few restraints in place to prevent the government from behaving opportunistically. But several features of the institutional environment protected against such opportunism. Because of this, and because reform was based on a system already performing well, the contractual arrangement with a private operator proved exceptionally capable of adjusting even in the face of dramatic changes in the external environment.

Institutional environments are not as favorable in other countries in the region, so similar contractual arrangements might be less successful elsewhere.

Reform in Côte d’Ivoire was motivated primarily by a macroeconomic crisis, which reduced the resources available for public investment. Without either a sector crisis or a realignment of political forces, the will for reform was weak. Consequently, opportunities for improvement were missed and some problems remain.

Among other ways in which the system could be improved: Splitting the water system into autonomous subsystems for different cities, and allowing bidding for investment contracts, would increase the chances of competition for investment, which does not currently exist.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to promote competition and private sector development. The study was funded by the Bank’s Research Support Budget under the research project “Institutions, Politics, and Contracts: Private Sector Participation in Urban Water Supply” (RPO 681-87). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-603, telephone 202-473-7898, fax 202-522-1154, email address halacovich@worldbank.org.

Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at adjankov@worldbank.org or caroline.l.freund@frb.gov. (28 pages)

2378. Disintegration and Trade Flows: Evidence from the Former Soviet Union

Simeon Djankov and Caroline Freund (June 2000)

This study of trade flows among and between nine Russian regions and 14 republics of the former Soviet Union shows a bias toward domestic trade in the reform period that is primarily the result of tariffs. In addition, old linkages—such as infrastructure, business networks, and production and consumption chains—have limited the reorientation of trade.

Djankov and Freund study the effects of trade barriers and the persistence of past linkages on trade flows in the former Soviet Union.

Estimating a gravity equation on trade among and between nine Russian regions and 14 former Soviet republics, they find that Russian regions traded 60 percent more with each other than with republics in the reform period (1994–96). By contrast, the Russian regions did not trade significantly more with each other than with republics in the prereform period (1987–90).

The results suggest that the bias toward domestic trade in the reform period is primarily the result of tariffs. In addition, past linkages—such as infrastructure, business networks, and production and consumption chains—have limited the reorientation of trade.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to promote economic liberalization. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-624, telephone 202-473-7989, fax 202-522-2031, email address hvol @worldbank.org. Policy Research Work-
ing increased market access are dim, as the failed Seattle negotiations might appear to suggest. India must credibly test negotiating pessimism by showing its willingness to open its markets in return for improved access to foreign markets. Success is not certain, but India’s chances are improved if it aligns itself with countries pressing for sound policies of open trade.


2380. Trade Policies for Electronic Commerce
Aaditya Mattoo and Ludger Schuknecht
(June 2000)

Members of the World Trade Organization have decided provisionally to exempt electronic delivery of products from customs duties. There is growing support for the decision to be made permanent. Is this desirable?

Some countries in the World Trade Organization initially opposed WTO’s decision to exempt electronic delivery of products from customs duties, out of concern for the revenue consequences. Others supported the decision as a means of securing open trading conditions.

Mattoo and Schuknecht argue that neither the inhibitions nor the enthusiasm are fully justified.

First, even if all delivery of digitizable media products moved online—an unlikely prospect—the revenue loss for most countries would be small.

More important, however, the prohibition of customs duties does not ensure continued open access for electronically delivered products and may even prompt recourse to inferior instruments of protection. Barrier-free electronic commerce would be more effectively secured by deepening and widening the limited cross-border trade commitments under the General Agreement on Trade in Services (GATS) and by clarifying and strengthening certain GATS disciplines.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to improve trade policy for goods and services. It is part of a larger project on trade in services supported in part by the United Kingdom’s Department for International Development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address tabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Aaditya Mattoo may be contacted at amattoo@worldbank.org. (27 pages)

2381. Savings and the Terms of Trade under Borrowing Constraints
Pierre-Richard Agénor and Joshua Aizenman
(June 2000)

When households face the possibility of borrowing constraints in bad times, favorable movements in the permanent component of the terms of trade may lead to higher rates of private savings.

Agénor and Aizenman examine the extent to which permanent terms-of-trade shocks have an asymmetric effect on private savings.

Using a simple three-period model, they show that if households expect to face binding constraints on borrowing in bad states of nature (when the economy is in a long trough rather than a sharp peak), savings rates will respond asymmetrically to favorable movements in the permanent component of the terms of trade—in contrast with the predictions of conventional consumption-smoothing models.

They test for asymmetric effects of terms-of-trade disturbances using an econometric model that controls for various standard determinants of private savings. The results—based on panel data for nonoil commodity exporters of Sub-Saharan Africa for 1980–96 (a group of countries for which movements in the terms of trade have traditionally represented a key source of macroeconomic shocks)—indicate that increases in the permanent component of the terms of trade (measured using three alternative filtering techniques) indeed tend to be associated with higher rates of private savings.

This paper is a product of Economic Policy and Poverty Reduction, World Bank Institute. Copies of the paper are available free from the World Bank, 1818 H Street, NW, Washington, DC 20433. Please contact Tanya Loftus, room J4-282, telephone 202-473-6317, fax 202-675-9810, email address tloftus@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Pierre-Richard Agénor may be contacted at pagenor@worldbank.org. (38 pages)

2382. Impediments to the Development and Efficiency of Financial Intermediation in Brazil
Thorsten Beck
(June 2000)

To improve on the low level and low efficiency of Brazil’s financial intermediation (and hence economic growth), Brazil needs reforms leading to a more efficient judicial sector, better enforcement of contracts, stronger rights for creditors, stronger accounting standards and practices, and a legal and regulatory framework that facilitates the exchange of information about borrowers.

Reforms to improve both the level and the efficiency of financial intermediation in Brazil should be high on Brazilian policymakers’ agendas, because of the financial sector’s importance to economic growth.

This means that Brazil must also improve the legal and regulatory environment in which its financial institutions operate. Brazil is weak in important components of such an environment: the rights of secured and unsecured creditors, the enforcement of contracts, and the sharing of credit information among intermediaries.

Recent reforms, such as the extension of alienação fiduciaria to housing, the introduction of cédula de crédito bancario, the legal separation of principal and in-
with better legal protection for outside investors—including strong creditor and shareholder rights and strong contract enforcement mechanisms.

Financial development also stimulates the establishment of new firms, which is consistent with the Schumpeterian view of creative destruction.

Financial development matters. That the financial system is bank-based or market-based offers little additional information.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to better understand the link between financial development and economic growth, with application to Brazil. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Elena Mekhova, room MC9-622, telephone 202-458-5984, fax 202-522-2031, email address emekhova@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at tbeck@worldbank.org or rlevine@csom.umn.edu. (43 pages)

2384. Are Cost Models Useful for Telecoms Regulators in Developing Countries?

Daniel A. Benitez, Antonio Estache, D. Mark Kennet, and Christian A. Ruzzier (July 2000)

As developing countries build up their capacity to regulate privatized infrastructure monopolies, cost models are likely to prove increasingly important in determining the efficient cost of providing a service to a certain area or type of customer. But cost models require reliable information, which is often scarce in developing countries. Census data and the location of wire services together may help provide the minimum information a regulator needs to implement a cost proxy model, a promising regulatory tool for assessing the efficient cost of providing a utility service.

Worldwide privatization of the telecommunications industry and the introduction of competition in the sector, together with the ever-increasing rate of technological advance in telecommunications, raise new and critical challenges for regulation.

For matters of pricing, universal service obligations, and the like, one question to be answered is this: What is the efficient cost of providing the service to a certain area or type of customer?

As developing countries build up their capacity to regulate their privatized infrastructure monopolies, cost models are likely to prove increasingly important in answering this question. Cost models deliver a number of benefits to a regulator willing to apply them, but they also ask for something in advance: information.

Without information, the question cannot be answered.

Benitez, Estache, Kennet, and Ruzzier introduce cost models and establish their applicability when different degrees of information are available to the regulator. They do so by running a cost model with different sets of actual data from Argentina’s second largest city and comparing the results.

Reliable, detailed information is generally scarce in developing countries. The authors establish the minimum information requirements for a regulator implementing a cost proxy model approach, showing that this data constraint need not be that binding.

This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Antonio Estache may be contacted at aestache@worldbank.org. (22 pages)

2385. The Rise, the Fall, and ... the Emerging Recovery of Project Finance in Transport

Antonio Estache and John Strong (July 2000)

Many transport projects undertaken during the boom period of the 1990s came to a crashing halt in 1997, and conditions in emerging markets worsened in 1998 and 1999. Many projects failed, victim of everything from overoptimistic forecasts to excessive debt to an inability to refinance bridge loans. As available financing dried
Recent developments in emerging financial markets have dramatically changed the appetite for (and terms of) transport infrastructure projects. As a result of defaults in Asia and Russia and devaluations in Asia, Brazil, and Russia, political and currency and exchange risk premia have increased dramatically. Given large needs for sovereign debt financing, infrastructure project finance will be seeking guarantees at the same time as governments are issuing primary securities. Large portfolio outflows in emerging market funds mean that the sources of both equity and debt capital that became available in the mid-1990s are drying up for all but the most creditworthy projects.

Moreover, real economic effects from financial events have consequences in the transport sector, since transport is a derived demand. Any decline in real economic activity is felt quickly in traffic levels and revenues. Currency devaluations that help spur exports may generate higher volumes for seaports and air cargo activity. These effects vary by sector, especially over the medium to longer term. Declines in real economic activity make matters especially difficult for toll roads, as drivers shift to free alternatives and reduce the number of trips taken.

What does all this mean for project finance in transport? Risks have increased. Debt finance costs more. The available tenor of debt instruments has shortened and more equity is required for projects. The sources and availability of equity finance have changed. Project finance efforts have shifted from new projects to the privatization, rehabilitation, and expansion of existing facilities. And a “superclass” of sponsors, bankers, and investors has emerged.

Failures and mistakes in project finance deals in the 1990s were sharp and persistent. But much has been learned about sound project economics, conservative financial structures, comprehensive sensitivity analysis, the effects of macroeconomic factors, and the need for proper incentives and sound institutional and regulatory arrangements.

This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at aestache@worldbank.org or jstrong@worldbank.org. (31 pages)

2386. Regulators and the Poor: Lessons from the United Kingdom

Richard Green
(July 2000)

The United Kingdom generally fights poverty directly—through the government’s benefit system—and not through utilities. But British regulators have taken certain measures that help utility consumers (mostly, but not always, poor consumers). Other countries may be able to copy some of their techniques.

Green studies a number of ways in which British regulators have helped poorer consumers. British Telecommunications offers a lower user tariff and a very cheap service with most outgoing calls barred, to attract customers who could not afford the full service. The gas regulator has taken action to reduce price differentials between customers who pay in cash (mostly, but not always, poor customers) and those who pay with bank transfers (mostly, but not always, better off customers). The electricity industry faces a series of rules and codes of practice governing its dealings with domestic consumers. Some of these schemes will help all consumers; others are aimed at, but not exclusive to, the poor.

One challenge facing utilities in some countries is that of expanding their networks to reach millions of unserved (mostly poor) customers. The United Kingdom achieved nearly universal service in geographical terms while the utilities were state-owned. The utilities were serving some customers who were already profitable and were simply required to serve others, who might not be. It might be possible to grant a concession, or privatize a new company, on a similar basis of “bundling” social obligations with opportunities for profit, but it will be important to ensure that obligations are performed properly. U.K. regulators have been fairly successful at protecting existing customers; other countries may be able to copy some of their techniques.

This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at r.j.green@econ.hull.ac.uk. (18 pages)

2387. The Long and Winding Path to Private Financing and Regulation of Toll Roads

Antonio Estache, Manuel Romero, and John Strong
(July 2000)

This guide to the issues at stake when toll roads are privatized answers many questions that privatization teams and regulators should be asking—providing useful information to project specialists, many of whom are now learning how much they did not know when they started.

Road transport has long been the dominant form of transport for freight and passenger movement throughout the world. Because most road projects require investments with long amortization periods and because many projects do not generate enough demand to become self-financing through some type of user fee or toll, the road sector remains in the hands of the public sector to a much greater extent than other transport activities.

But governments throughout the world, including those of many poor African and South Asian countries, are commercializing their operations to cut costs, improve user orientation, and increase sector-specific revenue.

There seems to be demand for toll roads in specific settings, but the problems met
by many of this “first generation” of road concessions—from Mexico to Thailand—have given toll projects a bad reputation. Many mistakes were made, and tolling is obviously not the best solution for every road. Most of the alternatives aim at improving efficiency (lowering costs). But there are many ways of getting the private sector involved in toll roads, thus reducing public sector financing requirements for the sector. Understanding the context in which toll roads are viable is essential both for their initial success and for effective long-run regulation.

Estache, Romero, and Strong provide a broad overview of issues at stake from the viewpoint of both privatization teams and regulators responsible for supervising contractual commitments of private operators and the government, to each other and to users. This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchetet@worldbank.org.

2388. The Role of Special and Differential Treatment for Developing Countries in GATT and the World Trade Organization

Constantine Michalopoulos
(July 2000)

Weaknesses in the institutional capacity of many developing countries provide a rationale for continuing special and differential treatment under the World Trade Organization (WTO), but the benefits should be targeted only to low-income developing countries and those that need help becoming integrated with the international trading system. An effective system of graduation should be put in place for higher-income developing countries.

Michalopoulos analyzes how changes in thinking about the role trade plays in economic development have been reflected in provisions affecting developing countries in the GATT and the WTO. He focuses on the provisions calling for the special and differential treatment of developing countries.

The WTO’s special and differential treatment has been extended to include measures of technical assistance and extended transition periods to enable countries to meet their commitments in new areas agreed on in the Uruguay Round of negotiations.

At the same time, many WTO provisions encourage industrial countries to give developing countries preferential treatment through a variety of measures, none of them legally enforceable.

Michalopoulos concludes that weaknesses in the institutional capacity of many developing countries provide a conceptual basis for continuing special and differential treatment in the WTO, but that the benefits should be targeted only to low-income developing countries and those that need help becoming integrated with the international trading system. In addition, an effective system of graduation should be put in place for higher-income developing countries.

Developing countries find it politically easier to argue that all should be treated the same, except for least developed countries, although their capacities and need for assistance differ vastly. Industrial countries are expected to provide special and differential treatment, but in practice their commitments on market access, preferential treatment, and technical assistance are not enforceable. Leaving it up to the industrial countries to decide which developing countries get preferential treatment invites extraneous considerations in determining who gets how much special treatment. Unless higher-income developing countries accept some type of graduated differentiation in their treatment (beyond that granted the least developed countries), there is little prospect of implementing meaningful, legally enforceable special and differential treatment favoring all developing countries under the WTO.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to identify the issues and challenges for better integration of developing countries into the world trading system. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433.

Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at cmichalopoulos@worldbank.org.

2389. Vietnam: On the Road to Labor-Intensive Growth?

Patrick Belser
(July 2000)

Between 1993 and 1997, Vietnam was one of the fastest growing economies, with GDP increasing almost 9 percent a year and the industrial sector expanding roughly 13 percent a year. But did employment also grow at a fast pace? And is Vietnam due for labor-intensive growth?

Since Vietnam’s adoption of the doi moi or renovation policy in 1986, the country has been undergoing the transition from central planning to a socialist market-oriented economy. This has translated into strong economic growth, led by the industrial sector, which expanded more than 13 percent a year from 1993 to 1997. Vietnamese policymakers are concerned, however, that employment growth has lagged.

To address this concern, Belser compares new employment data from the Vietnam Living Standards Survey (VLSS 2), completed in 1997–98, with data from the first household survey undertaken in 1992–93. He shows that in 1993–97, industrial employment grew an average of about 4 percent a year, which is low compared with industrial GDP growth. This slower growth was attributable to the capital-intensive, import-substituting nature of the state sector and foreign investment, which dominate industry.

The more labor-intensive, export-oriented domestic private sector is still small, although growing quickly.

In the future, growth promises to become more labor-intensive. Before the Asian crisis there were signs of an emerging export-oriented sector. Using previous statistical analysis (Wood and Mayer 1998) as well as factor content calculations, Belser estimates that given Vietnam’s endowment of natural and hu-
man resources, Vietnam could triple its manufacturing exports and create about 1.6 million manufacturing jobs in export sectors in the near future.

After examining Vietnam’s labor regulations, Belser concludes that there is no need for basic reform of the labor market. At current levels, minimum wages and nonwage regulations (even if better enforced) are unlikely to inhibit development of the private sector or hurt export competitiveness.

But a restrictive interpretation of the Labor Code’s provisions on terminating employment could hurt foreign investment, reduce the speed of reform in the state sector, and slow the reallocation of resources to the domestic private sector.


2390. The Social Rate of Return on Infrastructure Investments

David Canning and Esra Bennathan
(July 2000)

Large potential benefits of infrastructure may elude identification and measurement by conventional cost-benefit analysis. Canning and Bennathan estimate social rates of return to paved roads and electricity-generating capacity, relative to the return on general capital, by examining the effect on aggregate output and comparing that effect with the costs of construction.

They find that both types of infrastructure capital are highly complementary with other physical capital and human capital, but have rapidly diminishing returns if increased in isolation. The complementarities on the one hand, and diminishing returns on the other, point to the existence of an optimal mix of capital inputs, making it very easy for a country to have too much—or too little—infrastructure. For policy purposes, Canning and Bennathan compare the rate of return for investing in infrastructure with the estimated rate of return to capital.

The strong complementarity between physical and human capital, and the lower prices of investment goods in industrial economies, means that the rate of return to capital as a whole is just as high in rich countries as in the poorest countries but is highest in the middle-income (per capita) countries.

In most countries the rates of return to both electricity-generating capacity and paved roads are on a par with, or lower than, rates of return on other forms of capital. But in a few countries there is evidence of acute shortages of electricity-generating capacity and paved roads and, therefore, excess returns to infrastructure investment.

Excess returns are evidence of suboptimal investment that, in the case of paved roads, appears to follow a period of sustained economic growth during which road-building stocks have lagged behind investments in other types of capital. This effect is accentuated by the fact that the relative costs of road construction are lower in middle-income countries than in poorer and richer countries.

As a rule, a tendency to infrastructure shortages—signaled by higher social rates of return to paved roads or electricity-generating capacity than to other forms of capital—is symptomatic of certain income classes of developing countries: electricity capacity in the poorest, paved roads in the middle-income group.

To the extent that such high rates of return are not detected by microeconomic cost-benefit analysis, they suggest macroeconomic externalities associated with infrastructure.

This paper—a product of Public Economics, Development Research Group, and the Infrastructure Group, Private Sector Development and Infrastructure—is part of a larger effort in the Bank to study the impact of public expenditures and the growth effects of physical infrastructure. The study was funded by the Bank’s Research Support Budget under the research project “Infrastructure and Growth: A Multi-Country Panel Study” (RPO 680-89). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-470-6798, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/papers. The authors may be contacted at dcanning@qub.ac.uk or ebennathan@worldbank.org. (48 pages)

2391. Are the Poor Protected from Budget Cuts? Theory and Evidence for Argentina

Martin Ravallion
(July 2000)

Time-series data for Argentina suggest that action to support propoor social spending is warranted at times of fiscal contraction. Social spending in general—and social spending targeted to the poor in particular—took a heavy hit at times of fiscal austerity.

Adjustment programs often emphasize protecting social spending—especially propoor spending—from cuts. Yet the incidence of fiscal contraction—and hence the case for action to protect social spending on the poor at a time of overall fiscal austerity—is an empirical question, which Ravallion addresses using data from Argentina.

Aggregate budget cuts in Argentina in the 1980s and 1990s typically brought proportionately greater cuts in social spending. “Nonsocial” spending was protected. But proportionate cuts for types of social spending that matter more to the poor were about the same as the cuts for those that tend to favor the nonpoor. Absolute cuts were in fact greater for “social insurance” that matters more to the nonpoor.

But spending on targeted social assistance and employment programs was more vulnerable to aggregate spending cuts than were more universal social services. Social spending was clearly exposed to fiscal contraction, but this was somewhat less true of propoor spending on things that also benefited the nonpoor.
So fine targeting may be a mixed blessing for the poor, bringing greater vulnerability to cuts, possibly when help is most needed. There is a strong case for action to protect poor social spending at such times.

An externally financed workfare scheme in Argentina was far better targeted than other social spending but still had to ensure that a small but relatively well-protected share of the benefits went to the nonpoor.

The program was clearly subject to the same political economy constraints that influenced the incidence of past fiscal contractions in Argentina. The program expanded into poor areas when the budget increased but retreated from poor areas when the program was cut. It was the program's disbursements to nonpoor areas that were protected. Still, given the low wage rate offered, the direct benefits from the program were still likely to have favored the poor, even after the cuts.

This paper—a product of Poverty and Human Resources, Development Research Group—is part of a larger effort in the group to better understand the incidence of social spending. The study was funded by the Bank’s Research Support Budget under the research project “Policies for Poor Areas” (RFO 681-39). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC4-773, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at mrvallion@worldbank.org. (36 pages)

2392. What Factors Appear to Drive Private Capital Flows to Developing Countries? And How Does Official Lending Respond?

Dipak Dasgupta and Dilip Ratha
(July 2000)

Private portfolio flows to a country tend to rise in response to an increase in the current account deficit, a rise in foreign direct investment flows, higher per capita income, and growth performance. The most important determinant of official lending to a developing country seems to be the external current account balance or a change in international reserves in the country.

Dasgupta and Ratha study what drives private capital flows to developing countries as well as the apparent response of official lending for the years 1978–97. Econometric results reveal that non–foreign direct investment portfolio flows to a country tended to rise in response to

- An increase in the current account deficit.
- A rise in foreign direct investment flows.
- Higher per capita income.
- Growth performance.

Once those variables were accounted for, private flows did not seem to be influenced by location and regional factors. In addition, private capital flows (whether foreign direct investment or not) seem to respond positively (with a one-year lag) to World Bank lending commitments.

By far the most important determinant of official lending to a developing country seems to be the external current account balance or a change in international reserves in the country.

Official flows—including World Bank lending—appear to have played a stabilizing (or countercyclical) role in response to the volatility of private capital flows and fluctuations in commodity prices and GDP growth. (The stabilizing effect is weak, as official flows are only one-tenth of total long-term flows.)

This paper—a joint product of the Social and Economic Development Group, Middle East and North Africa, and the Development Prospects Group—is part of a larger effort in the Bank to understand the determinants of private capital flows and the response of official flows. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sarah Crow, room MC2-353, telephone 202-473-0763, fax 202-522-2578, email address scrow@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at ddasgupta@worldbank.org or dratha@worldbank.org. (23 pages)

2393. Will the Euro Trigger More Monetary Unions in Africa?

Patrick Honohan and Philip R. Lane
(July 2000)

The arrival of the euro widens the options for a common peg for African cur-

rencies but need not shift the balance of advantages in favor of adopting several common currency arrangements in Africa.

Honohan and Lane analyze the prospects for greater monetary integration in Africa in the wake of the European Monetary Union. They argue that the structural characteristics of African economies are quite different from those of European economies, but that much can be gained from monetary cooperation— as an external agency of restraint and for promoting stability in the financial sector.

But one should not expect too much from such arrangements. There is little evidence of contagious attacks on African currencies requiring the coordination of exchange rate policies. And economies of scale in the prudential regulation of financial systems could be achieved through international cooperation without the need for a common currency. The same is true of enhanced risk-pooling through the financial system.

The European Monetary Union has only a marginal impact on the net benefits of monetary cooperation, but the euro would be a natural anchor for any African monetary union—especially if the United Kingdom and the sterling were to join the European Monetary Union.

Indeed, the most likely route to new monetary cooperation in Africa is through a common peg to the euro.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to explore the economics of small financial systems. This study was prepared in the UNU/WIDER project on EMU: Impact on Europe and the World, and was funded by the Yrjö Jahnsson Foundation and the Ministry for Foreign Affairs of Finland. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Patrick Honohan may be contacted at phonohan@worldbank.org. (26 pages)
2394. Tax Evasion, Corruption, and the Remuneration of Heterogeneous Inspectors

Waly Wane
(July 2000)

In an economy where corruption is pervasive, how should tax inspectors be compensated?

Wane develops a general model for addressing the question of how to compensate tax inspectors in an economy where corruption is pervasive—a model that considers the existence of strategic transmission of information.

Most of the literature on corruption assumes that the taxpayer and the tax inspector jointly decide on the income to report, which also determines the size of the bribe. In contrast, Wane's model considers the more realistic case in which the taxpayer unilaterally chooses the income to report. The tax inspector cannot change the report and is faced with a binary choice: either he negotiates the bribe on the basis of the income report or he denies the tax evader and therefore renounces the bribe.

In his model, the optimal compensation scheme must take into account the strategic interaction between taxpayers and tax inspectors:

- Pure "tax farming" (paying tax inspectors a share of their tax collections) is optimal only when all tax inspectors are corruptible.
- When there are both honest and corruptible inspectors, the optimal compensation scheme lies between pure tax farming and a pure wage scheme.
- Paradoxically, when inspectors are hired beforehand, it may be optimal to offer contracts that attract corruptible inspectors but not honest ones.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to understand how the existence of corruption affects the remuneration schemes tax administrations should offer their inspectors. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7658, fax 202-522-1154, email address haladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at wwan@worldbank.org. (35 pages)

2395. Decentralizing the Provision of Health Services: An Incomplete Contracts Approach

William Jack
(July 2000)

How should central and local governments allocate authority for the planning, financing, and delivery of health services?

Jack studies the allocation—between a central government and a local authority—of responsibility for planning, financing, and operations for the delivery of health services, in the context of an incomplete contracts model. In this model, inputs are required of both the central government and local authorities but they are unable to write down and commit to, a complete and binding contract describing the actions both should take.

The model is meant to capture the trade-off between central and local authority in decisions about both financing and the provision of services. Each party provides a specific input—for example, the central government establishes a drug procurement system while the local authority designs and implements an incentive scheme to get doctors to carry out their responsibilities appropriately. The responsibility for delivery of services is identified with the ownership of essential infrastructure, such as the clinic or hospital.

Jack finds that to maximize the joint surplus of the two public bodies:

- Ownership of the facility should be given to the party that has the most values the well-being of local residents. (This way, if ex post bargaining breaks down, each still enjoys some benefits from the other's actions.)
- Financing authority and responsibility for delivering services should be negatively correlated. Generally it is optimal to allocate tax authority to the party that values the residents' well-being less—in other words, separate spending responsibility (ownership) from financing authority. A heavier financing burden (access to a small and inefficient tax base) has the same incentive effect as asset ownership: It increases the return to effort.
- If transferring ownership of the physical asset is costly (because the party that builds the asset has an inherent advantage in operating it—that is, there is some human capital embodiment), it may be optimal for the party with the higher construction costs to have planning authority.

- Somewhat paradoxically, the greater the costs of transferring assets from one party to the other, the more likely that ownership of the facilities and their provision should be separated.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to study incentives and institutional design in the provision of social services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7688, fax 202-522-1154, email address haladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at wjack@worldbank.org. (25 pages)

2396. Aid Dependence and the Quality of Governance: A Cross-Country Empirical Analysis

Stephen Knack
(July 2000)

Do higher levels of aid erode the very quality of governance poor countries need for sustained and rapid income growth?

Good governance—in the form of institutions that establish predictable, impartial, and consistently enforced rules for investors—is crucial for the sustained and rapid growth of per capita incomes in poor countries. Aid dependence can undermine institutional quality by weakening accountability, encouraging rent seeking and corruption, fomenting conflict over control of aid funds, siphoning off scarce talent from the bureaucracy, and alleviating pressures to reform inefficient policies and institutions.

Knack's analyses of cross-country data provide evidence that higher aid levels erode the quality of governance, as measured by indexes of bureaucratic quality, corruption, and the rule of law. This negative relationship strengthens when instruments for aid are used to correct for potential reverse causality. It is robust to changes in the sample and to several alternative forms of estimation.
Recent studies have concluded that aid’s impact on economic growth and infant mortality is conditional on policy and institutional gaps. Knack’s results indicate that the size of the institutional gap itself increases with aid levels.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to identify the determinants of good governance and institutions conducive to long-run economic development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC5-422, telephone 202-473-8526, fax 202-522-1155, email address psintim@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at sknack@worldbank.org. (37 pages)

2397. Verifying Exchange Rate Regimes

Jeffrey Frankel, Eduardo Fajnzylber, Sergio Schmukler, and Luis Servén (July 2000)

One reason intermediate exchange rate regimes have fallen out of favor is that they are not transparent or easy to verify. A simple peg or a simple float may be easier for market participants to verify than a more complicated intermediate regime.

Credibility and transparency are at the core of the current debate about exchange rate regimes. The steady growth in the magnitude and variability of international capital flows has complicated the question of whether to use floating, fixed, or intermediate exchange rate regimes.

Emerging market economies are abandoning basket pegs, crawling pegs, bands, adjustable pegs, and various combinations of these.

One of several reasons intermediate regimes have fallen out of favor is that they are not transparent; it is very difficult to verify them. Verifiability is a concrete example of the principle of “transparency” so often invoked in discussions of the new international financial architecture but so seldom made precise. A simple peg or a simple float may be easier for market participants to verify than a more complicated intermediate regime.

Frankel, Fajnzylber, Schmukler, and Servén investigate how difficult it is for investors to verify from observable data whether the authorities are in fact following the exchange rate regime they claim to be following.

Of the various intermediate regimes, they focus on basket pegs with bands. Statistically, it can take a surprisingly long span of data for an econometrician or investor to verify whether such a regime is actually in operation.

The authors find that verification becomes more difficult as the regime’s bands widen or more currencies enter the basket peg.

At the other extreme, they also analyze regimes described as free floating and find that in some cases the observed exchange rate data do validate the announced regime.

This paper—a joint product of Macro- economics and Growth, Development Research Group, and the Regional Studies Program, Latin America and the Caribbean Region—is part of a larger effort in the Bank to understand alternative currency regimes. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at jeffrey_franke@harvard.edu, sfajnzyl @ucla.edu, sschmukler@worldbank.org, or lserven@worldbank.org. (64 pages)

2398. Determinants of Current Account Deficits in Developing Countries

César Calderón, Alberto Chong, and Norman Loayza (July 2000)

In developing countries, increases in current account deficits tend to be associated with a rise in domestic output growth and shocks that increase the terms of trade and cause the real exchange rate to appreciate. Higher savings rates, higher growth rates in industrial economies, and higher international interest rates tend to have the opposite effect.

Calderón, Chong, and Loayza examine the empirical links between current account deficits and a broad set of economic variables proposed in the literature.

To accomplish this, they complement and extend previous research by using a large, consistent set of macroeconomic data on public and private domestic savings, external savings, and national income variables; focusing on developing economies by drawing on a panel data set for 44 developing countries and annual information for the period 1966–95; adopting a reduced-form approach rather than holding to a particular structural model; distinguishing between within-country and cross-country effects; and employing a class of estimators that controls for the problems of simultaneity and reverse causation.

Among their findings:

- Current account deficits in developing countries are moderately persistent.
- A rise in domestic output growth generates a larger current account deficit.
- Increases in savings rates have a positive effect on the current account.
- Shocks that increase the terms of trade or cause the real exchange rate to appreciate are linked with higher current account deficits.
- Either higher growth rates in industrial economies or higher international interest rates reduce the current account deficit in developing economies.

This paper—a product of the Regional Studies Program, Latin America and the Caribbean Region—is part of an effort in the region to understand the determinants of external sustainability. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hazel Vargas, room 347, telephone 202-473-8456, fax 202-522-2119, email address hvargas @worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at ccalderon@troi. cc.rochester.edu, aachong@worldbank.org, or nloayza@condor.bcentral.cl. (37 pages)

2399. Managers, Investors, and Crises: Mutual Fund Strategies in Emerging Markets

Graciela Kaminsky, Richard Lyons, and Sergio Schmukler (July 2000)

This study of an important class of investors—U.S. mutual funds—finds that mutual funds do engage in momentum trad-
ing (buying winners and selling losers). They also engage in contagion trading strategies (selling assets from one country when asset prices fall in another).

Kaminsky, Lyons, and Schumukler address the trading strategies of mutual funds in emerging markets. The data set they develop permits analyses of these strategies at the level of individual portfolios.

A methodologically novel feature of their analysis: they disentangle the behavior of fund managers from that of investors.

For both managers and investors, they strongly reject the null hypothesis of no momentum trading. Funds’ momentum trading is positive: they systematically buy winners and sell losers.

Contemporaneous momentum trading (buying current winners and selling current losers) is stronger during crises, and stronger for fund investors than for fund managers.

Lagged momentum trading (buying past winners and selling past losers) is stronger during noncrises, and stronger for fund managers.

Investors also engage in contagion trading—selling assets from one country when asset prices fall in another.

These findings are based on data about mutual funds that represent only 10 percent of the market capitalization in the countries considered. Were it a larger share of the market, finding counterparties for their trades (the investors who buy when they sell and sell when they buy) would be difficult—and the premise that funds respond to contemporaneous returns rather than causing them would become tenuous.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand capital flows to developing countries. The study was funded by the Bank’s Research Support Budget under the research project “Mutual Fund Investment in Developing Countries.”


2400. Child Care and Women’s Labor Force Participation in Romania

Monica Fong and Michael Lokshin (July 2000)

In Romania both the maternal decision to take a job and the decision to use out-of-home care are sensitive to the price of child care as well as to the potential market wage of the mother. A decrease in the price of child care can increase the number of mothers in the labor force and thus reduce poverty in some households.

Fong and Lokshin model the household demand for child care, the mother’s participation in the labor force, and her working hours in Romania. Their model estimates the effects of the price of child care, the mother’s wage, and household income on household behavior relating to child care and mothers working outside the home. They find that:

- Both the maternal decision to take a job and the decision to use out-of-home care are sensitive to the price of child care. A decrease in the price of child care can increase the number of mothers who work and thus reduce poverty in some households.

- The potential market wage of the mother has a significant positive effect on the decision to purchase market care and the decision to engage in paid employment.

- The level of household nonwage income has little effect on maternal employment and the demand for child care.

In addition to facilitating women’s work, kindergartens and crèches appear to provide educational and social benefits for children. Close to half the children in these facilities have mothers who do not work.

Further research is needed to assess the cost and nature of these benefits and to determine the appropriate roles for the private and public sectors in providing, financing, and regulating such services for working and nonworking mothers.

This paper—a product of Poverty and Human Resources, Development Research Group—is part of a larger effort in the group to understand the role of gender in the context of the household, institutions, and society. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-632, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingspapers. Michael Lokshin may be contacted at mllokshin@worldbank.org. (36 pages)

2401. Telecom Traffic and Investment in Developing Countries: The Effects of International Settlement Rate Reductions

Scott J. Wallsten (July 2000)

In 1997 the U.S. Federal Communications Commission ordered sharp reductions in international settlement rates (bilaterally negotiated rates for telecom traffic between pairs of countries) for telecom traffic between the United States and the rest of the world. Even the very poorest countries, with the least developed telecommunications networks, must slash rates for traffic to the United States by 2003. Will this, by reducing telecom revenues in developing countries, reduce investments in those countries’ telecom sectors?

Developing countries, which received about $35 billion in net settlement payments from U.S. telecom carriers between 1985 and 1998, were upset by the FCC’s decision to slash rates, because lower rates mean lower payments. They claim that the payments help finance telecom investment, and that the FCC’s decision will therefore harm their telecom sectors.

Wallsten uses a panel data set for 178 countries from 1985 to 1998 to test how changes in settlement rates affect telecom traffic and investment. He finds that rates are significantly negatively correlated with traffic, with the greatest effects in the poorest countries.

In other words, reduced settlement rates spur telecom traffic from developing countries to the United States.

And while there is a statistically significant correlation between settlement payments and telecom revenues in developing countries, he finds no correlation between the payments and the number of telephone mainlines or imports of telecommunications equipment. In short, there is no evidence that the payments are invested in telecom networks.
This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to examine the effects of privatization and liberalization in infrastructure in the developing world. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Assogbe, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address psintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at wallsten@stanford.edu. (25 pages)

2402. Debt Management in Brazil: Evaluation of the Real Plan and Challenges Ahead

Afonso S. Bevilaqua and Márcio G. P. Garcia
(July 2000)

In 1994–98, Brazil’s domestic debt grew very rapidly while remaining short in maturity. The main policy recommendations for managing this domestic debt situation: maintain a tighter fiscal stance and consider the use of inflation-linked bonds.

Brazil’s domestic debt has posed two challenges to policymakers: it has grown very fast and, despite progress, remains extremely short in maturity.

Bevilaqua and Garcia analyze Brazil’s experience with domestic public debt management, searching for policy prescriptions for the next few years.

After briefly reviewing the recent history of the country’s domestic debt, they decompose the large rise in federal bonded debt in 1995–98, searching for its macroeconomic causes. The main explanations: extremely high interest payments (caused by Brazil’s weak fiscal stance and quasi-fixed exchange rate regime) and the accumulation of assets (especially obligations of Brazil’s states). Simulations of the net debt path for the near future underscore the importance of a tighter fiscal stance to prevent the debt-to-GDP ratio from growing further.

The authors’ main policy advice is to foster and rely more on inflation-linked bonds—the least harmful way to lengthen debt maturity.

This paper—a product of the Brazilian Country Office, Latin America and the Caribbean Region—is part of a larger effort in the region to assist in better management of Brazil’s domestic debt. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Suman Sintim-Aboagye, room MC3-422, telephone 202-473-8526, fax 202-522-1155, email address ssintimaboagye@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. (49 pages)


Paul Collier and David Dollar
(July 2000)

Poverty in the developing world will decline by roughly half by 2015 if current growth trends and policies persist. But a disproportionate share of poverty reduction will occur in East and South Asia, poverty will decline only slightly in Sub-Saharan Africa, and it will increase in Eastern Europe and Central Asia. What can be done to change this picture?

More effective development aid could greatly improve poverty reduction in the areas where poverty reduction is expected to lag: Sub-Saharan Africa, Eastern Europe, and Central Asia.

Even more potent would be significant policy reform in the countries themselves.

Collier and Dollar develop a model of efficient aid in which the total volume of aid is endogenous. In particular, aid flows respond to policy improvements that create a better environment for poverty reduction and effective use of aid.

They use the model to investigate scenarios—of policy reform, of more efficient aid, and of greater volumes of aid—that point the way to how the world could cut poverty in half in every major region.

The fact that aid increases the benefits of reform suggests that a high level of aid to strong reformers may increase the likelihood of sustained good policy (an idea ratified in several recent case studies of low-income reformers).

Collier and Dollar find that the world is not operating on the efficiency frontier. With the same level of concern, much more poverty reduction could be achieved by allocating aid on the basis of how poor countries are as well as on the basis of the quality of their policies.

Global poverty reduction requires a partnership in which “third world” countries and governments improve economic policy while “first world” citizens and governments show concern about poverty and translate that concern into effective assistance.

This paper—a product of the Development Research Group—is part of a larger effort in the group to study aid effectiveness. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address ekhine@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at pcollier@worldbank.org or ddollar@worldbank.org. (50 pages)

2404. The Distribution of Mexico’s Public Spending on Education

Gladys Lopez-Acevedo and Angel Salinas
(July 2000)

Public spending on tertiary education in Mexico is strongly regressive, benefiting mainly the nonpoor in urban areas. To give the poor a chance at higher education, student loan programs or means-tested financial aid and scholarship programs (though rarely devoid of subsidy) are preferable to free education services, because loan and aid programs target the students who suffer from the financial market’s failure to provide long-term loans for higher education.

Research shows that education has played a crucial role in raising levels of earnings and that returns to education in Mexico have increased, particularly in higher education and in the upper tail of the conditional earnings distribution.

Lopez-Acevedo and Salinas examine patterns of public spending on education in the face of further increases in earnings inequality.

They analyze the incidence of benefits using two sets of data: data on unit costs per student by state and by education level, and data on surveys on household income and spending. Among their findings:
• Nationally, the poorest income groups get most of the national and state subsidy for primary education. At higher education levels the poor get progressively smaller subsidies.

• For all Mexico, government spending on primary education is very progressive. In lower secondary education it is neutral. And in upper secondary education it benefits mainly the middle and upper classes. Tertiary education is strongly regressive, benefiting mainly the richest deciles and mainly in urban areas.

• But those government patterns vary by region. In the central region average total spending is more uniformly distributed than the national pattern. In the northern region the subsidy is progressive. Primary education is neutral and higher levels of instruction are moderately regressive. In the central region primary schooling is very progressive, while lower secondary schooling is almost neutral. Upper secondary and tertiary instruction strongly benefit the richest income deciles. In the southern region education (primary and lower secondary) education is very progressive, upper secondary education is neutral, and tertiary education is highly regressive. In Mexico City all levels of education except primary are strongly regressive.

Lopez-Acevedo and Salinas show that public spending at the tertiary level is more regressive than household spending. So much of public spending on tertiary education favors nonpoor families in urban areas that to reallocate the spending so that poor students have a chance to participate would require developing credit markets for higher education. The government's role should be to help overcome market failures in the financial sector, which limit the availability of long-term financing for higher education. These failures can be corrected through student loan programs or means-tested financial aid and scholarship programs. Such programs are rarely devoid of subsidy but are preferable to the direct, cost-free provision of services because the subsidy is targeted more closely to the source of market failure.

This paper—a product of the Economic Policy Sector Unit and the Mexico Country Office, Latin America and the Caribbean Region—is part of a strategy to reduce poverty and inequality in Mexico. The study was part of the research project “Earnings Inequality after Mexico's Economic Reforms.” Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room 14-142, telephone 202-458-5155, fax 202-522-2093, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at gacevedo@worldbank.org or asalinas@worldbank.org. (14 pages)

2405. Marginal Willingness to Pay for Education and the Determinants of Enrollment in Mexico

Gladys Lopez-Acevedo and Angel Salinas (July 2000)

The best way to increase school enrollment in Mexico is to successfully target public spending on education to poor households. Currently, nonpoor households in urban areas get much of the subsidy benefit from the government provision of education services.

Standard benefit-incidence analysis assumes that the subsidy and quality of education services are the same for all income deciles. This strong assumption tends to minimize the distributional inequity at various education levels.

Using a new approach emphasizing marginal willingness to pay for education, Lopez-Acevedo and Salinas analyze the impact of public spending on the education spending behavior of the average household.

They address several questions: What would an average household with a given set of characteristics be willing to spend on an individual child with given traits if subsidized public education facilities were unavailable? What would the household have saved by sending the child to public school rather than private school? How great are these savings for various income groups? What are the determinants of enrollment by income group and by location? How do individuals' education expenditures affect enrollment patterns?

Among their findings:

• The nonpoor households in urban areas get much of the subsidy, or "savings," from government provision of education services.

• The wealthy value private education more than the poor do.

• Differences in school quality are greater at the primary level.

In other words, wealthy households get the lion's share of benefits from public spending on education.

Household school enrollment and transition to the next level of schooling depend heavily on the cost of schooling, how far the head of the household went in school, the per capita household income, and the housing facilities or services. But the government's effort also affects the probability of enrollment and transition.

The probability of enrollment is much higher for the 40 percent of higher-income households in urban areas than it is for the 40 percent of lower-income households in rural areas.

The best way to increase school enrollment is to successfully target public spending on education to poor households.

This paper—a product of the Economic Policy Sector Unit and the Mexico Country Office, Latin America and the Caribbean Region—is part of a strategy to reduce poverty and inequality in Mexico. The study was part of the research project "Earnings Inequality after Mexico's Economic Reforms." Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room 14-142, telephone 202-458-5155, fax 202-522-2093, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at gacevedo@worldbank.org or asalinas@worldbank.org. (22 pages)

2406. How Mexico's Financial Crisis Affected Income Distribution

Gladys Lopez-Acevedo and Angel Salinas (July 2000)

After Mexico's financial crisis in 1994, the distribution of income and labor earnings improved. But financial income and rising labor earnings in higher-income brackets are growing sources of inequality in Mexico.

After Mexico's financial crisis in 1994, the distribution of income and labor earnings improved. Did inequality increase during the recession, as one would expect, since the rich have more ways to protect their assets than the poor do? After all, labor is
In principle, one could argue that the richest deciles experienced severe capital losses because of the crisis in 1994–96, and were hurt proportionately more than the poor. But the fact doesn’t support this hypothesis. As a share of total income, both monetary income (other than wages and salaries) and financial income increased during that period, especially in urban areas.

Financial income is a growing source of inequality in Mexico.

Mexico’s economy had a strong performance in 1997. The aggregate growth rate was about 7 percent, real investment grew 24 percent and exports 17 percent, industrial production increased 9.7 percent, and growth in civil construction (which makes intensive use of less skilled labor) was close to 11 percent. Given those figures, it is not surprising that the distribution of reform, performance in 1997. The aggregate growth rate increased during that period, especially in varied, often complex, ways, in urban areas.

The good news is that many measures have been taken to improve the chances that will benefit from reform.

What is amazing is the extent to which governments and their advisors—sometimes including multilateral organizations—fail to measure, anticipate, and monitor how the privatization of utilities actually affects the poor.

Many questions must still be answered before good general guidelines can be drawn, but Estache, Gomez-Lobo, and Leipziger offer many suggestions about how social, regulatory, and privatization policy can increase the benefits of utility reform for poor households.

The good news is that many measures can be taken to improve the chances that poor households will benefit from reform. Chief among these is promoting competition, where possible.

Essentially what is needed is political commitment to doing the right thing. If policy is weak before privatization, it is going to be weak after privatization as well. Privatization is not a substitute for responsible policy on redistribution.

This paper—a product of the Economic Policy Sector Unit and Mexico Country Office, Latin America and the Caribbean Region—is part of the Bank’s study of earnings inequality after Mexico’s economic and educational reforms. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room 14-142, telephone 202-448-5155, fax 202-522-2093, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at aesthetic@worldbank.org, agomezlobo@worldbank.org, or dlipziger@worldbank.org. (33 pages)
bridge gaps in trust when it comes to creating money and intermediating funds.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study the links between financial sector and economic development and improve financial sector policy reforms. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hazel Vargas, room 18-138, telephone 202-473-7871, fax 202-522-2119, email address hvargas@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at bbossone@worldbank.org. (60 pages)

2409. How Did the World’s Poorest Fare in the 1990s?

Shaohua Chen and Martin Ravallion (August 2000)

Between 1987 and 1998, the incidence of poverty fell in Asia and the Middle East and North Africa, changed little in Latin America and Sub-Saharan Africa, and rose in Eastern Europe and Central Asia. Too little economic growth in the poorest countries and persistent inequalities (in income and other measures) are the main reasons for the disappointing rate of poverty reduction.

Drawing on data from 265 national sample surveys spanning 83 countries, Chen and Ravallion find that there was a net decrease in the total incidence of consumption poverty between 1987 and 1998. But it was not enough to reduce the total number of poor people, by various definitions.

The incidence of poverty fell in Asia and the Middle East and North Africa, changed little in Latin America and Sub-Saharan Africa, and rose in Eastern Europe and Central Asia.

The two main proximate causes of the disappointing rate of poverty reduction: too little economic growth in many of the poorest countries, and persistent inequalities (in both income and other essential measures) that kept the poor from participating in the growth that did occur.

This paper—a product of Poverty and Human Resources, Development Research Group—is part of a larger effort in the group to monitor progress against poverty in the developing world. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at schen@worldbank.org or mravallion@worldbank.org. (33 pages)

2410. Is Functional Literacy a Prerequisite for Entering the Labor Market? An Analysis of Determinants of Adult Literacy and Earnings in Ghana

Niels-Hugo Blunch and Dorte Verner (August 2000)

The policy implications of this study of the determinants of literacy and earnings in Ghana: Basic education and literacy programs should target girls and poorer households, especially in rural areas.

Blunch and Verner analyze the determinants of literacy and earnings in Ghana. They link literacy and earnings with various other factors, including age, gender, family educational background, distance to school, and income.

Literacy and age are negatively correlated, suggesting that efforts to strengthen the supply and quality of basic education programs in recent years have succeeded in raising literacy rates. Parents' education is positively associated with literacy. Distance to the nearest primary school, residence in a rural area, and poverty are negatively associated with literacy.

Functional literacy appears to be a prerequisite for entering the labor market, which may partly explain the lack of returns to education other than middle school and technical and professional training.

The policy implications of this study: Basic education and literacy programs should target girls and poorer households, especially in rural areas.

This paper is a joint product of Human Development 3, Africa Technical Families, and Economic Policy Sector Unit, Latin America and the Caribbean Region. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hazel Vargas, room 18-138, telephone 202-473-7871, fax 202-522-2119, email address hvargas@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at bbossone@worldbank.org. (60 pages)

2411. Natural Openness and Good Government

Shang-Jin Wei (August 2000)

A "naturally more open economy"—as determined by its size and geography—devotes more resources to building good institutions and displays less corruption.

Wei offers a possibly new interpretation of the connection between openness and good governance, with a conceptual model and some empirical evidence.

Assuming that corruption and bad governance reduce international trade and investment more than domestic trade and investment, a "naturally more open economy"—as determined by its size and geography—would devote more resources to building good institutions and would display less corruption in equilibrium.

How is "natural openness" defined? By size, geography, and language. France would be more naturally open than Argentina because Argentina is more remote. Ability to speak English facilitates international trade. A country with a long coast tends to be more open than a landlocked country.

In the data, "naturally more open economies" do show less corruption even after their level of development is taken into account. "Residual openness"—which could include trade policies—is not important once "natural openness" is accounted for. Moreover, "naturally more open economies" also tend to pay civil servants salaries that are more competitive with those of their private sector counterparts.

One implication of this research is that globalization may affect governance: as globalization deepens, the "natural openness" of all countries increases. This raises the opportunity cost of tolerating a given level of corruption and could provide new impetus for countries to fight corruption.
These patterns are consistent with the conceptual model. This paper—a product of Public Economics, Development Group—is part of a larger effort in the group to study the determinants of corruption and governance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at swel@worldbank.org. (29 pages)

2412. Urbanization without Growth: A Not-So-Uncommon Phenomenon

Marianne Fay and Charlotte Opal (August 2000)

Sustained economic growth is always accompanied by urbanization. But in Africa urbanization occurred without growth. Was Africa's urbanization process distorted, or is urbanization not always accompanied by sustained growth?

To find out why African countries' experience with urbanization and sustained growth appeared to differ from that of other countries, Fay and Opal investigated the determinants of urbanization across countries over 40 years. Rather than studying individuals' decisions to migrate, they relied on macroeconomic data and cross-country comparisons. A central hypothesis of their study: that individuals move (with varying degrees of ease) in response to economic incentives and opportunities. If location incentives are distorted, so is growth.

The authors find that urbanization levels are closely correlated with levels of income. But urbanization continues even during periods of negative growth, carried by its own momentum, largely a function of the level of urbanization. From that viewpoint, Africa's urbanization without growth is not a puzzle.

Factors other than income that help predict differences in levels of urbanization across countries include:

- Ethnic tensions.
- Civil disturbances.
- In addition, the relationship between economic incentives and urbanization is weaker in countries with fewer civil or political liberties.

Factors other than initial urbanization level that help explain the speed of urbanization include:

- The sector from which income growth is derived.
- Ethnic tensions.
- Civil disturbances and democracy (these two slow the pace of urbanization if all else is constant).
- Rural-urban wage differentials, whether they represent an urban bias or simply lower productivity in agriculture relative to other sectors.

The weak relationship that this study shows between urbanization and traditionally accepted migration factors suggests that in Africa economists are overlooking part of the urbanization story. The fact that the informal sector appears to provide a significant source of income for urban migrants, coupled with the overlap between rural and urban activities, may shed light on the nature of urbanization in Africa.

This paper—a product of the Urban Development and Transportation Division, Private Sector and Infrastructure Vice Presidency—is part of a larger effort in the Bank to develop its urban economics and strategy work program. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Awatif Abuzeid, room F4K-332, telephone 202-473-3548, email address aabuzeid@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Marianne Fay may be contacted at mfay@worldbank.org. (31 pages)

2413. Foreign Direct Investment in Services and the Domestic Market for Expertise

James Markusen, Thomas F. Rutherford, and David Tarr (August 2000)

How important to welfare and growth in developing countries are restraints on foreign providers of producer services? Limiting such services not only may limit growth but may hurt some of the very people—domestic skilled workers in such service sectors—that restraints are designed to protect.

A growing body of evidence suggests that the close availability of diverse business services is important for economic growth. Producer services such as managerial and engineering consulting can provide specialized knowledge to help domestic firms develop at lower unit cost.

But these intermediate services are often nontraded, or costly to trade, which may be one reason that cities and industrial complexes form and economic performance differs across regions.

Because services are costly to trade, foreign services are best transferred through foreign direct investment. This has important implications for public policy. Policies that affect foreign direct investment differ considerably from those that affect trade in goods.

Markusen, Rutherford, and Tarr develop a model of services, results from which show that:

- Liberalizing restraints on inward foreign direct investment has a powerful positive impact on the income and welfare of the importing country. The impact is much stronger than in traditional competitive models of trade in goods.
- Policies to protect domestic skilled labor against competition from imported services can have the perverse effect of lowering returns to domestic skilled labor—because while imported services economize on the use of domestic skilled labor (compared with domestic service industries), the positive effects on scale and productivity in the downstream industry can be powerful enough that the real wages of domestic skilled labor rise after the liberalization of foreign direct investment in service industries.

In other words, domestic skilled labor and foreign direct investment are partial-equilibrium substitutes in the model but are typically general-equilibrium complements.

- The increase in the variety of imported services leads to increased total factor productivity in downstream industries, but the relative impact on downstream industries depends on how intensively they use intermediate services. The differential in effects on productivity in the production of final goods can be strong enough that permitting foreign direct investment can actually affect whether a
good is exported rather than being imported.

Policymakers should be aware that protection of a domestic service industry affects different constituencies differently. Although domestic capital owners may be adversely affected by foreign direct investment, domestic skilled workers in the industry are likely to see demand for their skills—and their real wages—rise. Moreover, downstream industries that use the service unambiguously benefit from foreign direct investment and their expansion can be surprisingly strong.

An earlier version of this paper—a product of Trade, Development Research Group—was presented at the Second Annual Conference on Global Economic Analysis in June 1999. The study was funded by the Bank’s Research Support Budget under the research project “Preparing for the World Trade Organization 2000 Negotiations” (RPO 683-54). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-6896, fax 202-522-1159, email address itabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at agnes.yaptenco@worldbank.org, thomas.rutherford@colorado.edu, or dtarr@worldbank.org. (45 pages)

2414. Pension Reform and Capital Market Development “Feasibility” and “Impact” Preconditions

Dimitri Vittas
(August 2000)

Private pension funds are neither necessary nor sufficient for capital market development. But if they are subject to conducive regulations, adopt optimizing policies, and operate in a pluralistic structure, they can have a large impact on capital market modernization and development once they reach a critical mass.

The link between pension reform and capital market development has become a perennial question, raised every time the potential benefits and preconditions of pension reform are discussed. Vittas asks two questions. First, what are the basic “feasibility” preconditions for the successful launch of a pension reform program? And second, what are the necessary “impact” preconditions for the realization of the potential benefits of funded pension plans for capital market development?

His main conclusion is that the feasibility preconditions are not as demanding as is sometimes assumed. In contrast, the impact preconditions are more onerous. The most important feasibility precondition is a strong and lasting commitment of the authorities to maintaining macroeconomic and financial stability, fostering a small core of solvent and efficient banks and insurance companies, and creating an effective regulatory and supervisory agency. Opening the domestic banking and insurance markets to foreign participation can easily fulfill the second requirement. The main impact preconditions include the attainment of critical mass; the adoption of conducive regulations, especially on pension fund investments; the pursuit of optimizing policies by the pension funds; and a prevalence of pluralistic structures.

Vittas also argues that pension funds are neither necessary nor sufficient for capital market development. Other forces, such as advances in technology, deregulation, privatization, foreign direct investment, and especially regional and global economic integration, may be equally important. But pension funds are critical players in “symbiotic” finance, the simultaneous and mutually reinforcing presence of many important elements of modern financial systems. They can support the development of factoring, leasing, and venture capital companies, all of which specialize in financing new and expanding small firms.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study the impact of institutional investing on capital markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-1823, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at dvittas@worldbank.org. (22 pages)

2415. Infrastructure Restructuring and Regulation: Building a Base for Sustainable Growth

Ian Alexander and Antonio Estache
(August 2000)

Reforms to make infrastructure services more competitive and to provide strong and independent economic regulation of natural monopolies create an environment more conducive to private sector participation in infrastructure investments, efficiency savings that can be passed on to consumers, and better provision of services.

The link between economic growth and better provision of infrastructure services may be unproven, but it is clear that reforms to make infrastructure services more competitive (where possible) and to provide strong and independent economic regulation of natural monopolies do create an environment more conducive to:

- Private sector participation in infrastructure investments.
- Companies trying to cut costs and pass the savings on to consumers.
- Better provision of services (through faster rollout of infrastructure, for example, and through innovative solutions for delivering services to customers who are not connected to an existing network).

It is important that policymakers make the right decisions when deciding how to restructure infrastructure. First they should review the evidence on the impact of various types of reform have had. Alexander and Estache provide an overview of the evidence from—and lessons learned in—Latin America, one of the first regions to undertake wholesale reform of its infrastructure service providers. Among their conclusions:

- The reform of utility and infrastructure industries is vital to economic growth.
- Apparently well-founded but wrong decisions can damage growth prospects.
- Reform should combine changes in industry structure, ownership, and (through effective regulatory behavior).

To minimize the risk of misconduct by infrastructure companies, the government should introduce:

- As much competition as possible (after evaluating all tradeoffs).
- Rules to limit (or eliminate) vertical and horizontal ownership, which makes it difficult to regulate company behavior.
• Rules to ensure that regulators get all the information they need, and that it is timely, consistent, and accurate.

This paper—a joint product of Private Participation in Infrastructure, Private Sector Development Department, and Governance, Regulation, and Finance, World Bank Institute—is based on background notes prepared for the International Development Research Centre/Trade and Industry Policy Secretariat/second pillars as well as supplementary World Bank Institute—based on back-income workers are not required to participate in the second pillar. The first and second pillars as well as supplementary benefits are admirably integrated.

Company pension plans are free to set terms and conditions in excess of these minimums, and most offer benefits exceeding obligatory levels. The second pillar has accumulated large financial resources, equivalent to 125 percent of GDP. Investment returns have historically been low, but a shift in asset allocation in favor of equities and international assets has increased reported returns in recent years.

The third (voluntary) pillar covers self-employed workers and others not covered by the second pillar. It plays a rather small role in the system.

Many of the positive features of the Swiss pension system are due to some grand original design but are instead the result of periodic revisions. In large part they reflect the collective common sense of the Swiss people in voting for stable and fiscally prudent social benefits. However, the Swiss system also has some weaknesses. As in many other countries, the public pillar faces a deteriorating system dependency ratio, due to demographic aging and a large increase in disability pensions. The second pillar is fragmented (more than 4,000 funds with affiliates), lacks transparency, and has achieved low investment returns.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study pension systems and assess the role of public and private as well as funded and unfunded pillars. Copies of the paper are available free from the World Bank, 1818 H Street, NW, Washington, DC 20433. Please contact Mina Salehi, room 19-240, telephone 202-473-7157, fax 202-522-3481, email address msalehi@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at ialexander@worldbank.org or aestacha@worldbank.org. (28 pages)

2417. The Indirect Approach

David Ellerman
(August 2000)

Aid and conditionalities are the "carrots and sticks" of the conventional direct approach to fostering economic development. Considering the outcomes of the conventional approach, it might be worthwhile to explore alternative indirect approaches that focus on enabling clients to act more autonomously, rather than try for fuller control of clients' actions with improved carrots and sticks.

Aid and conditionalities are the "carrots and sticks" of the conventional direct approach to fostering economic development. The economic theory of agency is the most sophisticated treatment of the direct carrots-and-sticks approach to influencing human behavior.

Considering the outcomes of the conventional approach, it might be worthwhile to explore alternative indirect approaches that focus on enabling clients to act more autonomously, rather than try for fuller control of clients' actions (or "agents' behaviors") with improved carrots and sticks.

Are there inherent limitations in the direct approach that will not be addressed with better crafted "agency contracts" or closer monitoring of the agents?

Ellerman traces the intellectual history of indirect approaches from Socrates to modern thinkers such as Wittgenstein, Gandhi, and McGregor.

One theme of his survey is that constructivist and active-learning pedagogies constitute an indirect approach in which the teacher does not directly transmit knowledge to the learner through training and instruction. These pedagogies—translated into social and economic development as learning writ large—form the basis for an alternative indirect approach to fostering development.

Actions have motives just as beliefs have grounds, concludes Ellerman. In the wide spectrum of human endeavor, there is only a fairly small "bandwidth" in which motives can be supplied by the carrots and sticks of the direct approach (including agency theory and market-driven activities as special cases of the direct approach to affecting behavior). Outside that spectrum, trying to use direct methods in a controlling manner contradicts the mo-
tives for actions (and the grounds for beliefs)—like trying to "buy love."

For higher activities, motives must come from within. Helpers can at best use an indirect approach to bring doers to the threshold; the doers have to do the rest, which makes the results their own.

This paper—a product of the Office of the Senior Vice President and Chief Economist, Development Economics—is part of a larger effort in the Bank to rethink the role of conditionalities in development assistance. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Bezawork Mekuria, room MC4-328, telephone 202-458-2756, fax 202-522-1158, email address bmekuria@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at dellemann@worldbank.org. (36 pages)

2418. Polarization, Politics, and Property Rights: Links between Inequality and Growth

Philip Keefer and Stephen Knack (August 2000)

One strand of research argues that polarized societies find it difficult to reach political consensus on appropriate responses to crises. Another strand focuses on redistribution, asking whether income inequality stifles growth by increasing political incentives to redistribute. Which is right?

Most efforts to trace the effects of income inequality on growth have focused on redistribution. However, empirical investigation has not substantiated either the positive association of income inequality with redistribution or the negative association of redistribution with economic growth.

Keefer and Knack analyze the effects of income inequality in the broader context of social polarization. They argue that social polarization, whether rooted in income inequality or in ethnic tension, makes large changes in current policies (including those guaranteeing the security of contract and property rights) more likely under a wide range of institutional arrangements. The resulting uncertainties in the policy and contractual environment hinder growth.

They find strong empirical support for both parts of this argument.

The policy implications of their argument are quite distinct from those of arguments that inequality reduces growth by increasing pressures for redistribution.

If redistributive policies per se were to blame for the low growth resulting from inequality, governments that seek to mitigate income inequality must inevitably confront a tradeoff between equity and growth.

If, on the other hand, the insecurity of property rights slows growth in unequal or otherwise polarized societies, governments that commit over the long run to particular redistributive policies incur less risk of slowing economic growth. Fiscal redistribution that reduces inequality may actually increase growth by reducing the risks of political uncertainty.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to understand the interplay of institutions and economic development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboa gye, room MC3-422, telephone 202-473-7644, fax 202-522-1155, email address psintimaboagyew@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at pkeefern@worldbank.org or sknack@worldbank.org. (37 pages)

2419. The Savings Collapse during the Transition in Eastern Europe

Cevdet Denizer and Holger C. Wolf (August 2000)

The transition economies of Eastern Europe almost uniformly experienced a precipitous plunge in savings rates—from levels above 30 percent of GDP to levels about half that—early in the transition, before rebounding slightly. Did savings collapse because involuntary savings were eliminated (when goods became available for purchase) or because of a change in equilibrium savings, reflecting the changed economic circumstances and long-term prospects?

Denizer and Wolf assess the presence and extent of involuntary savings by comparing the predicted savings rates of market economies with those of the pre-transition economies. On balance, predicted savings rates fell short of actual savings rates, especially for the former Soviet Union and the Baltics—providing some support for the notion of excessive pre-transition savings.

Comparing the savings behavior of market economies and transition economies, they found substantial similarities, except for a negative link between savings and GDP growth. As the fastest-growing transition economies are at the bottom of the adjustment-J-curve, the finding is consistent with consumption smoothing.

Finally, they explored whether differences in the extent of economic liberalization affected savings rates in the cross-section of transition economies. They found that liberalization is associated with lower savings, with a one-year lag. To the extent that liberalization is perceived as an indicator of likely future growth, this behavior is consistent with smoothing in the face of a J-curve change in output.

This paper—a product of the Poverty Reduction and Economic Management Sector Unit, Europe and Central Asia Region—is part of a larger effort in the region to understand the determinants of savings during the transition to a market economy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Irina Partola, room H4-346, telephone 202-473-5759, fax 202-522-2751, email address ipartola@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Cevdet Denizer may be contacted at cdanizer@worldbank.org. (13 pages)


Mary Shirley and Patrick Walsh (August 2000)

Disappointment with insider trading in Russia, with voucher privatization in the Czech Republic, and with the privatization of infrastructure in many developing countries has spawned new critiques of privatization. How do theory and empirical evidence answer the much-debated questions, Which is more important to performance, competition or private own-
ership? Are state enterprises more subject to welfare-reducing interventions by government than private firms are? Do state enterprises suffer more from problems of corporate governance?

At the heart of the debate about public versus private ownership lie three questions:

- Does competition matter more than ownership?
- Are state enterprises more subject to welfare-reducing interventions by government than private firms are?
- Do state enterprises suffer more from governance problems than private firms do?

Even if the answers to these questions favor private ownership, the question must still be asked: Do distortions in the process of privatization mean that privatized firms perform worse than state enterprises?

Shirley and Walsh's review found greater ambiguity about the merits of privatization and private ownership in the theoretical literature than in the empirical literature. Most cases, empirical research strongly favors private ownership in competitive markets over a state-owned counterfactual (although construction of the counterfactual is itself a problem). Theory's ambiguity about ownership in monopoly markets seems better justified.

Since the choice confronting governments is between state ownership and privatization rather than between privatization and optimality, theory has left a gap that empirical work has tried to fill. Further research is needed.

This paper—a product of Regulation and Competition Policy, Development Research Group—is part of a larger effort in the group to analyze the merits of privatization and the role of regulation and politics. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Zeny Kranzer, room MC3-439, telephone 202-473-8526, fax 202-522-1155, email address zkranzer@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Mary Shirley may be contacted at mshirley@worldbank.org (67 pages)

2421. Contractual Savings or Stock Market Development—Which Leads?

Mario Catalan, Gregorio Impavido, and Alberto R. Musalem
(August 2000)

This paper argues that contractual savings (assets of pension funds and life insurance companies) contribute to stock market development. And it provides international time-series evidence supporting a causal relationship between contractual savings and stock market development in many countries, particularly in those where capital markets were initially not deeply developed.

Catalan,Impavido, and Musalem study the relationship between the development of contractual savings (assets of pension funds and life insurance companies) and non-life insurance and the development of stock markets (market capitalization and value traded). Their contribution lies in providing time-series evidence on a hypothesis that is very popular—but had not been substantiated—among supporters of fully funded pension systems in which funds invest large shares of their portfolios in tradable securities (equities, bonds).

The literature is not clear on its assumption regarding causality between contractual savings and capital market development. A one-way or two-way relationship is assumed, usually interchangeably; the authors address the question of which leads empirically. They present the evidence, including descriptive statistics and the results of Granger causality tests, for OECD countries and such countries as Chile, Malaysia, Singapore, South Africa, and Thailand. They do not present a theoretical framework but do explain how the growth of the contractual savings sector is thought to promote financial development.

The authors find evidence in the data that causality between institutions and markets either does not exist or, if it exists, runs predominantly from institutions to markets. To a lesser extent, there is simultaneous causality between institutions and markets. Furthermore, there is limited evidence that causality runs only from markets to institutions (the only exception seems to be for non-life insurance in developing countries).

Results seem to support the idea that the development of institutional investors is likely to promote the growth of market capitalization more than that of value traded. In developing countries, there seems to be no causality from pension funds to growth in value traded, while there is causality from life and non-life insurance.

This paper—a product of the Financial Sector Development Department—is part of a larger effort in the department to study the effects of contractual savings on financial markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Braxton, room MC9-704, telephone 202-473-2720, fax 202-522-7105, email address pbraxton@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at mcatalan@ucla.edu, gimpavido@worldbank.org, or amusalem@worldbank.org (42 pages)

2422. Private Provision of a Public Good: Social Capital and Solid Waste Management in Dhaka, Bangladesh

Sheoli Pargal, Daniel Gilligan, and Mainul Huq
(August 2000)

Some neighborhoods in Dhaka have successfully organized an alternative to municipal trash collection and some have not.

What determines whether a neighborhood or community is likely to undertake collective action?

Pargal, Gilligan, and Huq try to identify the determinants of private, community-based provision of a public good—in this case, trash collection. Using survey data for Dhaka, Bangladesh, where some neighborhoods have successfully organized an alternative to the municipal trash collection service, they examine why some communities or neighborhoods display such initiative while others do not.

Their results show that social capital—trust, reciprocity, and sharing—is an important determinant of whether alternative systems arise in Dhaka. More generally, public-private partnerships or self-help schemes appear more likely to succeed in neighborhoods high in social capital.

Other measures of homogeneity of interests are also important. So, interest-
Finally, education levels are strongly
and robustly associated with the existence of
collective action for trash disposal.

How can policymakers encourage such
activity? The process through which com-
community residents start cooperating for the
common good is a function of the strength
of their relationships. Government at-
ttempts to initiate the process are there-
fore unlikely to boost social capital di-
rectly, but by lowering information and
transaction costs they may facilitate a
virtuous cycle of successful cooperation
and strengthening social ties.

This paper—a product of the Private
Sector Cluster, Latin America and the
Caribbean Region—is part of a larger ef-
fort in the region to examine the determin-
ants of private provision of public goods.
Copies of the paper are available free from
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Research Working Papers are also posted on
the Web at www.worldbank.org/research/
workingpapers. Daniel Gilligan may be
contacted at gilligan@arec.umd.edu. (32
pages)

2423. Financial Structure and
Economic Development: Firm,
Industry, and Country Evidence

Thorsten Beck, Asll Demirgüç-Kunt,
Ross Levine, and Vojašlav Maksimovic
(August 2000)

A country's level of financial development
and the legal environment in which financi-
al intermediaries and markets operate
actively influence economic development.
In countries whose financial sectors are
more fully developed and whose legal sys-
tems protect the rights of outside investors,
economies grow faster, industries depend-
ent on external finance expand more
quickly, new firms are created more eas-
ily, firms have more access to external fi-
nancing, and firms grow faster.

Beck, Demirgüç-Kunt, Levine, and
Maksimovic explore the relationship be-
tween financial structure—the degree to
which a financial system is market- or
bank-based—and economic development.

They use three methodologies:

- The cross-country approach uses
cross-country data to assess whether
economies grow faster with market- or
bank-based systems.
- The industry approach uses a coun-
try-industry panel to assess whether in-
dustries that depend heavily on external
financing grow faster in market- or bank-
based financial systems and whether fi-
nancial structure influences the rate at
which new firms are created.
- The firm-level approach uses firm-
level data across a broad selection of coun-
tries to test whether firms are more likely
grow beyond the rate predicted by in-
ternal resources and short-term borrow-
ings in market- or bank-based financial
systems.

The cross-country regressions, the in-
dustry panel estimations, and the firm-
level analyses provide remarkably consis-
tent conclusions:
- Financial structure is not an analyti-
cally useful way to distinguishing financial
systems.
- Financial structure does not help us
understand economic growth, industrial
expansion, or firm expansion.
- The results are inconsistent with both
market-based and bank-based views.

In other words, economies do not grow
faster, industries dependent on external
financing do not expand faster, new firms
are not created more easily, firms' access
to external finance is not greater, and
firms do not grow faster in either market-
or bank-based financial systems.

The authors find overwhelming evi-
dence that the overall level of financial
development and the legal environment
in which financial intermediaries and mar-
kets operate critically influence economic
development.

This paper is a product of Finance, De-
velopment Research Group. The study
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"Financial Structures and Economic De-
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paper are available free from the World
Bank, 1818 H Street NW, Washington, DC
20433. Please contact Kari Labrie, room
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Research Working Papers are also posted on the Web at
www.worldbank.org/research/
workingpapers. The authors may be
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ademirgcaknt@worldbank.org. (60
pages)

2424. Global Transmission
of Interest Rates: Monetary
Independence and the Currency
Regime

Jeffrey Frankel, Sergio Schmukler,
and Luis Servén
(August 2000)

Hikes in U.S. interest rates in 1999–2000
have started to spill over to other econo-
 mies’ interest rates, which in many coun-
tries have risen to reflect the higher U.S.
rates. Are countries with flexible exchange
rates better able to isolate their domestic
interest rates from this type of negative
international shock? Less and less so, as
economies become more integrated.

Frankel, Schmukler, and Servén empiri-
cally study the sensitivity of local inter-
est rates to international interest rates
and how that sensitivity is affected by a
country's choice of exchange rate regime.

To establish the empirical regularities,
they use a reduced-form empirical ap-
proach to compute both panel and single-
country estimates of interest rate sensi-
tivity for a large sample of developing
and industrial economies between 1970 and
1999.

When using the full sample, they find
that:
- Interest rates are typically lower in
economies with fixed exchange rates than
in those with flexible exchange rates.
- More rigid currency regimes tend to
exhibit higher transmission than more
flexible regimes.

In many cases in the 1990s, however,
the authors cannot reject full transmission
(a slope coefficient equal to 1), even for
several countries with floating regimes.
The data suggest an upward time trend
in the degree to which domestic interest
rates are sensitive to international capi-
tal movements and developing economies’
increased financial integration with the
rest of the world.

As a result, country-specific estimates
for the 1990s reveal few cases of less-than-
full transmission of international interest
rates to domestic rates, regardless of the
currency regime.

Country-specific results suggest that
only large industrial countries can (or
choose to) benefit from independent mon-
etary policy. During the 1990s, interest
rates in European countries were fully
sensitive to German interest rates but
insensitive to U.S. interest rates.
This paper—a joint product of Macroeconomics and Growth, Development Research Group, and the Chief Economist Unit, Latin America and the Caribbean Region—is part of a larger effort in the Bank to understand the functioning of alternative currency arrangements. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-347, telephone 202-473-7471, fax 202-522-3518, email address khine@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/workingpapers. The authors may be contacted at jeffrey-frankel@harvard.edu, tchumak@hss.hku.hk, kkhine@worldbank.org, or lserven@worldbank.org. (33 pages)
to present the results to policymakers in a format that leads to more informed choices about public sector reform.

To perform well, public officials must be confident enough about the future to be able to see a relationship between their efforts and an eventual outcome. Their expectations are shaped by their institutional environment. If the rules are not credible or are unlikely to be enforced, or if they expect policies to be contradicted or resources to flow unpredictably, results will be uncertain, so there is little point in working purposefully.

Manning, Mukherjee, and Gokcekus present an analytical framework used to design a series of surveys of public officials' views of their institutional environment and to analyze the information generated in 15 countries. They describe how survey results help map a public sector's strengths and weaknesses and offer an approach to identifying potential payoffs from reforms.

The framework emphasizes how heterogeneous incentives and institutional arrangements are within the public sector. It emphasizes how important it is for policymakers to base decisions on information (not generalizations) that suggests what is most likely to work, and where.

In building on the premise that public officials' actions—and hence their organizations' performance—depend on the institutional environment in which they find themselves, this framework avoids simplistic antigovernment positions but doesn't defend poor performance. Some public officials perform poorly and engage in rent seeking, but some selfless and determined public officials work hard under extremely difficult conditions. This framework offers an approach for understanding both bad and good performances and for presenting the results to policymakers in a format that leads to more informed choices about public sector reform.

Types of reforms discussed include strengthening the credibility of rules for evaluation, for record management, for training, and for recruitment; ensuring that staff support government policy; preventing political interference or micromanagement; assuring staff that they will be treated fairly; and making government policies consistent.

This paper—a product of the Poverty Reduction and Economic Management Network—is part of a larger effort in the network to develop practical strategies for the reform of public sector institutions. The surveys were funded by the World Bank-Netherlands Partnership Program. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Claudia Nolan, room MC4-562, telephone 202-473-0930, fax 202-522-7132, email address cnolan@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at nmanning@worldbank.org, rmukherjee@worldbank.org, or ogokcekus@worldbank.org. (65 pages)

2429. Corruption, Composition of Capital Flows, and Currency Crises

Shang-Jin Wei
(August 2000)

Corruption affects the composition of capital inflows in a way that may raise the likelihood of a currency crisis.
Crony capitalism and international creditors’ self-fulfilling expectations are often suggested as rival explanations for currency crises. A possible link between the two has not been explored.

Wei shows one channel through which crony capitalism can increase the chance of a currency/financial crisis by altering the composition of capital inflows.

Using data on bilateral foreign direct investment and bilateral bank loans, Wei finds clear evidence that in corrupt countries the composition of capital inflows is relatively light in foreign direct investment.

Earlier studies indicated that a country with a capital inflow structure is more likely to run into a currency crisis down the road (partly through international creditors’ self-fulfilling expectations).

Therefore, crony capitalism, through its effect on the composition of a country’s capital inflows, makes the country more vulnerable to currency crises brought about by self-fulfilling expectations. Corruption may also weaken domestic financial supervision, with a subsequent deterioration in the quality in banks’ and firms’ balance sheets.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to understand the connection between corruption and international capital flows. This study was supported in part by a grant from the OECD Development Center. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingspapers. The author may be contacted at swei@worldbank.org. (25 pages)

2430. Financial Structure and Bank Profitability

Astill Demirğuc-Kunt and Harry Huizinga (August 2000)

For countries with underdeveloped financial systems, a move toward a more developed financial system reduces bank margins and profitability. Controlling for both bank and market development, financial structure per se—the development of banks relative to that of markets—appears to have no independent effect on bank performance.

Countries differ in the extent to which their financial systems are bank-based or market-based. The financial systems of Germany and Japan, for example, are considered bank-based because banks play a leading role in mobilizing savings, allocating capital, overseeing investment decisions of corporate managers, and providing risk management vehicles. The systems of the United States and the United Kingdom are considered more market-based.

Using bank-level data for a large number of industrial and developing countries, Demirğuc-Kunt and Huizinga present evidence about the impact of financial development and structure on bank performance. They measure the relative importance of bank or market finance by the relative size of stock aggregates, by relative trading or transaction volumes, and by indicators of relative efficiency.

They show that in developing countries both banks and stock markets are less developed, but financial systems tend to be more bank-based. The richer the country, the more active are all financial intermediaries.

The greater the development of a country’s banks, the tougher is the competition, the greater is the efficiency, and the lower are the bank margins and profits.

The more underdeveloped the stock market, the greater are the bank profits. But financial structure per se does not have a significant, independent influence on bank margins and profits.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study financial structure and development. The study was funded by the Bank’s Research Support Budget under the research project “Financial Structure and Economic Development” (RPO 682-41). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-622-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingspapers. The authors may be contacted at ademirguckunt@worldbank.org or h.p.huizinga@kub.nl. (24 pages)

2431. Inside the Crisis: An Empirical Analysis of Banking Systems in Distress

Astill Demirguc-Kunt, Enrica Detragiache, and Poonam Gupta (August 2000)

Contemporary banking crises are not accompanied by declines in aggregate bank deposits, and credit does not fall relative to output, but the growth of both deposits and credit does slow down substantially. Output recovery begins the second year after the crisis and is not led by a resumption of credit growth. Instead, banks (including the stronger banks) reallocate their asset portfolio away from loans.

Much of the substantial literature on banking crises focuses on early warning indicators. Demirguc-Kunt, Detragiache, and Gupta look at what happens to the economy and the banking sector after a banking crisis breaks out.

Much of the theory of banking crises assigns a central role to depositor runs, with vulnerability to runs viewed as a basic characteristic of banks as financial intermediaries. But banking systems can be financially distressed even when depositors do not withdraw their deposits, if other bank creditors rush for the exit or if banks become insolvent.

Are contemporary banking crises characterized by large declines in deposits? The authors find that contemporary banking crises are not accompanied by declines in aggregate bank deposits, and credit does not fall relative to output, but the growth of both deposits and credit does slow down substantially. Output recovery begins the second year after the crisis and is not led by a resumption of credit growth. Instead, banks (including the stronger banks) reallocate their asset portfolio away from loans.

This suggests that protecting deposits during a banking crisis may not be enough to protect bank credit, as lack of usable collateral and poor borrower creditworthiness discourage banks from lending. However, protecting bank credit may not be a priority right after a crisis, as the real economy can rebound without it, at least while there is substantial underused capacity.

This paper—a joint product of Finance, Development Research Group, and the Research Department, International Monetary Fund—is part of a larger effort
to study banking crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20435. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at ademirguckunt@worldbank.org, edetrangiache@worldbank.org, or pgupta@mf.org. (36 pages)

2432. Funding Growth in Bank-Based and Market-Based Financial Systems: Evidence from Firm-Level Data

Aysl Demirgüç-Kunt and Vojislav Maksimovic (August 2000)

How the relative development of a country's stock market and banking system affects firms' growth is closely tied to how well developed the country's contracting environment is. How differences in the contracting environment affect the relative development of the stock market or banking system may have implications for which firms and which projects get financing.

Demirgüç-Kunt and Maksimovic investigate whether firms' access to external financing to fund growth differs between market-based and bank-based financial systems.

Using firm-level data for 40 countries, they compute the proportion of firms in each country that relies on external finance and examine how that proportion differs across financial systems. They find that the development of a country's legal system predicts access to external finance and that stock markets and the banking system have different effects on access to external markets. The development of securities markets is related more to the availability of long-term financing, whereas the development of the banking sector is related more to the availability of short-term financing.

They find no evidence, however, that firms' access to external financing is predicted by an index of the development of stock markets relative to the development of the banking system.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study financial structure and development. The study was funded by the Bank's Research Support Budget under the research project "Financial Structure and Economic Development" (RPO 682-41). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Aysl Demirgüç-Kunt may be contacted at ademirguckunt@worldbank.org. (36 pages)

2433. External Interventions and the Duration of Civil Wars

Ibrahim A. Elbadawi and Nicholas Sambanis (September 2000)

Previous studies have argued that longer civil wars have been caused by ethnically polarized societies, since rebel cohesion is easier and more lasting with polarization. This study shows that external interventions tend to reduce the cost of coordinating a rebellion (or of fighting a rebellion), thereby lengthening the duration of civil wars even in societies that are not ethnically polarized.

Elbadawi and Sambanis combine an empirical model of external intervention with a theoretical model of civil war duration. Their empirical model of intervention allows them to analyze civil war duration using "expected" rather than "actual" external intervention as an explanatory variable in the duration model.

Unlike previous studies, they find that external intervention is positively associated with the duration of civil war.

They distinguish partial third-party interventions that extend the length of war from multilateral "peace" operations, which have a mandate to restore peace without taking sides—and which typically take place at war's end, or at least when both sides have agreed to a cease-fire.

In a future paper the authors will examine whether partial third-party interventions—whatever their effect on a war's duration—increase the risk of war's recurrence. If that proves true, then even if interventions reduce the length of civil war they may do so at the cost of further destabilizing the political system and sowing the seeds of future rebellion.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to study the economics of civil wars, crime, and violence. The study was funded by the Bank's Research Support Budget under the research project "The Economics of Political and Criminal Violence" (RPO 682-99). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at ielbadawi@worldbank.org or nsambanis@worldbank.org. (18 pages)

2434. Socioeconomic Inequalities in Child Malnutrition in the Developing World

Adam Wagstaff and Naoko Watanabe (September 2000)

Despite the development community's shift in emphasis toward the poor, malnutrition, like other dimensions of poor health, is concentrated among the worst off. Yet targets are still defined in terms of population averages. Consider, then, this information about malnutrition rates among different economic groups in 20 developing countries.

Among the conclusions Wagstaff and Watanabe reach about malnutrition rates among different economic groups:
  * Inequalities in malnutrition almost always disfavor the poor.
  * It's not just that the poor have higher rates of malnutrition. The rate of malnutrition declines continuously with rising living standards.
  * The tendency of poorer children to have higher rates of stunting and underweight is not due to chance or sampling variability. Inequalities in stunting and underweight, as measured by the concentration index, are statistically significant in almost all countries.
  * Inequalities in underweight tend to be larger than inequalities in stunting, which tend to be larger than inequalities in wasting.
In most cases, whatever the malnutrition indicator, differences in inequality between countries are not statistically significant.

Even if attention is restricted to the cross-country differences in inequality that are statistically significant, interesting conclusions emerge. Egypt and Vietnam have the most equal distributions of malnutrition, and Nicaragua, Peru, and, to a lesser extent, Morocco have highly unequal distributions.

Some countries (such as Egypt and Romania) do well in terms of both the average (the prevalence of malnutrition) and the distribution (equality). Others do badly on both counts. Peru, for example, has a higher average level of stunting than Egypt and higher poor-nonpoor inequality. But many countries do well on one count and badly on the other. Brazil, for example, has a far lower (less than 20 percent) stunting rate overall than Bangladesh (more than 50 percent) but has four times as much inequality (as measured by the concentration index).

Use of an achievement index that captures both the average level and the inequality of malnutrition leads to some interesting rank reversals in the country league table. With stunting, for example, focusing on the achievement index moves Egypt (a low-inequality country) from sixth position to fourth, higher than Brazil and Russia (two countries with high inequality).

This paper—a product of Poverty and Human Resources, Development Research Group, and the Health, Nutrition, and Population Team, Human Development Network—is part of a larger effort in the Bank to investigate the links between health and poverty. The study was funded by the Bank’s Research Support Budget under the research project “Inequalities of Child Health: Comparing the LSMS and DHS” (RPO 683-47). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Anna Marafen, room MC3-556, telephone 202-473-8009, fax 202-522-1153, email address amaranon@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Lant Pritchett may be contacted at lant_pritchett@harvard.edu. (36 pages)

2435. The Evolution of Poverty during the Crisis in Indonesia, 1996–99
Asep Suryahadi, Sudarno Sumarto, Yusuf Suharso, and Lant Pritchett
(September 2000)

The relative price of food increased considerably during Indonesia’s recent economic crisis, so the explicit (or implicit) choice of the weight given to the inflation rate for food prices dramatically affects calculations of the poverty rate.

Poverty is intrinsically a complex social construct, and even when it is narrowly defined by a deficit of consumption spending, many thorny issues arise in setting an appropriate “poverty line.”

Suryahadi, Sumarto, Suharso, and Pritchett limit themselves to examining how poverty—defined on a consistent, welfare-comparable basis—changed in Indonesia during a series of crises that began in August 1997. Using various data sets and studies, they develop a consistent series on poverty’s evolution from February 1996 to August 1999.

Specifically, they study the appropriate method for comparing changes in poverty between the February 1996 and February 1999 Susenas surveys.

To set a poverty line for 1999 that is conceptually comparable to that for 1996 involves a standard issue of price deflation: How much would it cost in 1999 to purchase a bundle of goods that would produce the same level of material welfare as the money spent at the poverty line in 1996?

Empirically, given major changes in the relative prices of food, the key issue is the weight given food prices in the price index.

Using different deflators produces a range of plausible estimates, but they produce two “base cases”: one working forward from 1996 and one working backward from 1999.

If one accepts the official figure of 11.34 percent for February 1996, poverty increased from the immediate pre-crisis rate of about 7–8 percent in the second half of 1997 to the post-crisis rate of about 18–20 percent by September 1998 and 18.9 percent in February 1999.

If one begins from the best estimate of the poverty rate in February 1999 (27.1 percent), poverty rose by 9.6 percentage points from 17.5 percent in February 1996. Since February 1999, poverty appears to have subsided considerably but—two years after the crisis started—is still substantially higher than it was immediately before the crisis.

This paper—a product of the Environment and Social Development Sector Unit, East Asia and Pacific Region—is part of a larger effort in the region to develop a national poverty strategy for Indonesia. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Lant Pritchett may be contacted at lant_pritchett@harvard.edu. (36 pages)

2436. Safety Nets and Safety Ropes: Who Benefited from Two Indonesian Crisis Programs—the “Poor” or the “Shocked?”
Sudarno Sumarto, Asep Suryahadi, and Lant Pritchett
(September 2000)

A study of two programs compares the “safety net” (which guarantees against a fall past an absolute level) with the “safety rope” (which guarantees against a fall of more than a given distance).

Imagine several mountain climbers, scaling a cliff face, who want protection from falling. One way to protect them would be to place a net at the bottom of the cliff to catch any climber just before he hits the ground. Another would be to provide a rope and a set of movable devices that can be attached to the cliff; as the climbers scale the cliff, they attach the rope at higher and higher levels so that if a climber falls, he falls only by the length of the rope.

In this paper, the “safety net” guarantees against a fall past an absolute level; the “safety rope” guarantees against a fall of more than a given distance. The safety net is concerned with an increase in poverty; the safety rope mitigates risk through social insurance or social protection.

Calculations of the benefit incidence and targeting effectiveness of safety net programs typically examine only the relationship between a household’s current...
expenditures and program participation. But in programs that respond to an economic shock or intend to mitigate household risk, it is not only the current level of expenditures that matters but also changes in expenditures.

Safety net programs may intend to benefit only the currently poor; programs to mitigate shocks (“safety rope” programs) may intend to provide transfers to those whose incomes have fallen, even if they have not fallen below an absolute poverty threshold.

Sumarto, Suryahadi, and Pritchett examine the targeting performance of two programs created to respond to the social impacts of Indonesia’s crisis.

They find strong evidence that one program, subsidized sales of rice targeted to the permanently poor, was only weakly related to the shock in consumption spending.

A job creation program was much more responsive to changes in spending.

A household that started in the third quintile in expenditures in 1997 and fell to the lowest quintile between 1997 and 1998 was four times as likely to have participated in the job creation program as a household starting in the third quintile in 1997 but experiencing a positive shock.

But the household experiencing a negative shock was only 50 percent more likely to have received subsidized rice than a household experiencing a positive shock.

This paper—a product of the Environment and Social Development Sector Unit, East Asia and Pacific Region—is part of a larger effort in the region to improve the efficacy of response to the social impacts of the Indonesian crisis. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433.

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This paper—a product of the Environment and Social Development Sector Unit, East Asia and Pacific Region—is part of a larger effort in the region to develop a national poverty reduction strategy for Indonesia. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-355, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Lant Pritchett may be contacted at lant.pritchett@harvard.edu. (44 pages)

2439. State-Community Synergies in Development: Laying the Basis for Collective Action

Monica Das Gupta, Helene Grandvoinnet, and Mattia Romani (September 2000)

Higher levels of the state can catalyze the development effectiveness of local administrations and communities, forming alliances with them and improving development outcomes while also gaining legitimacy and popular support. With creative political thinking it is possible to effect rapid change even in poor institutional settings.

If states would interact more synergistically with communities, they could tap local energies and resources for development—and help create a development-oriented society and polity in the process.

Das Gupta, Grandvoinnet, and Romani analyze experience in several countries to identify the actions required for state-community synergies in development. Two actions that seem especially important:

- Broadening the distribution of power within communities, to facilitate collective action and reduce the potential for local capture. In rural areas, much can be done by expanding access to credit, strengthening tenants' rights, and expanding non-crop sources of income.

- Creating state-community alliances to improve the effectiveness of local public sector institutions and the delivery of services. Case studies from East Asia and Latin America show that such alliances can effect rapid improvements in local institutions, benefiting not only communities but also politicians seeking support and legitimacy.

Local bureaucratic reform, combined with more egalitarian community social organizations, allows the creation of powerful coalitions and synergies for rapid, self-sustaining development. This model has been used to achieve outcomes ranging from better health care and drought relief to the generation of agrarian and industrial economic growth. In China and Taiwan, these state-community synergies helped produce not only for local consumption but for a rich export market.

From these strategies, joint Poverty Reduction Strategy Papers (PRSPs) will bring together the country's own priorities and Bank-Fund assistance to the country. In Uganda, such a strategy has existed for several years. Uganda was one of the first low-income countries to prepare a comprehensive national strategy for poverty reduction using a participatory approach. Indeed, its experience contributed substantially to the design of the PRSPs.

Mackinnon and Reinikka discuss the general characteristics of a poverty reduction action plan, drawing on Uganda's experience; discuss what is known about poverty in Uganda and identify shortcomings in the data; examine the macroeconomic and fiscal policies that were considered most important to poverty reduction during the participatory process; discuss the delivery of public services, especially those that directly affect the poor; and highlight problems associated with land issues, including problems with access to credit and financial services and with the security of productive assets.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to study public service delivery and poverty reduction strategies in low-income countries. The new approach features a more inclusive and participatory process for helping recipient countries develop poverty reduction strategies. From these strategies, joint Poverty Reduction Strategy Papers (PRSPs) will bring together the country's own priorities and Bank-Fund assistance to the country.
and to translate the results into poverty reduction strategies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7658, fax 202-522-1154, email address haladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at jwm1962@sol.com or rreinikka@worldbank.org. (55 pages)

2441. Controlling the Fiscal Costs of Banking Crises

Patrick Honohan and Daniela Klingebiel

(September 2000)

Certain measures add greatly to the fiscal cost of banking crises: unlimited deposit guarantees, open-ended liquidity support, repeated recapitalization, debtor bail-outs, and regulatory forbearance. The findings in this paper tilt the balance in favor of a strict rather than an accommodating approach to crisis resolution.

In recent decades, a majority of countries have experienced a systemic banking crisis requiring a major—and expensive—overhaul of their banking system. Not only do banking crises hit the budget with outlays that must be absorbed by higher taxes (or spending cuts), but they are costly in terms of forgone economic output.

Many different policy recommendations have been made for limiting the cost of crises, but there has been little systematic effort to see which recommendations work in practice. Honohan and Klingebiel try to quantify the extent to which fiscal outlays incurred in resolving banking distress can be attributed to crisis management measures of a particular kind adopted by the government in the early years of the crisis.

They find evidence that certain crisis management strategies appear to add greatly to fiscal costs: unlimited deposit guarantees, open-ended liquidity support, repeated recapitalization, debtor bail-outs, and regulatory forbearance.

Their findings clearly tilt the balance in favor of a strict rather than an accommodating approach to crisis resolution. At the very least, regulatory authorities who choose an accommodating or gradualist approach to an emerging crisis must be sure they have some other way to control risk-taking.

This paper—a product of Finance, Development Research Group, and Financial Sector Strategy and Policy Department—is part of a larger effort in the Bank to examine the effects of financial sector regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Agnes Yaptenco, room MC3-446, telephone 202-473-8526, fax 202-522-1155, email address ayaptenco@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at phonohan@worldbank.org or dklingebiel@worldbank.org. (35 pages)

2442. A Firm's-Eye View of Policy and Fiscal Reforms in Cameroon

Bernard Gauthier, Isidro Soloaga, and James Tybout

(September 2000)

In Cameroon, neither a major devaluation nor a major simplification of the tax structure systematically affected profit margins. But trade liberalization—substantial tariff reductions—clearly signaled change to manufacturers. And devaluation shifted relative prices dramatically in favor of exportable goods.

After decades of heavy trade restrictions, fiscal distortions, and currency overvaluation, Cameroon implemented important commercial and fiscal policy reforms. Almost simultaneously, a major CFA devaluation cut the international price of Cameroon's currency in half.

Gauthier, Soloaga, and Tybout examine the effects of these reforms on the incentive structure that manufacturing firms face. Did they create a coherent set of new signals? Was the net effect to stimulate the production of tradable goods? Was the dispersion of tax burdens lessened?

They address each of these questions using a cost function decomposition applied to detailed firm-level panel data. They observe that Cameroon's reforms appear to have sent clear new signals to manufacturers, as the effective rate of protection fell by between 80 and 120 percentage points.

Unlike trade liberalization, neither tax reforms nor the CFA devaluation had a major systematic effect on profit margins. But the CFA devaluation did twist relative prices dramatically in favor of exportable goods, so export-oriented firms exhibited rapid output growth.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to explore conceptual and practical issues in the trade policies of developing countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lili Tabada, room MC3-333, telephone 202-473-8896, fax 202-522-1155, email address ltabada@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at bernard.gauthier@hec.ca, isoloaga@worldbank.org, or jxt32@psu.edu. (35 pages)

2443. The Politics of Economic Policy Reform in Developing Countries

Richard H. Adams Jr.

(September 2000)

Various social groups may oppose economic reforms such as currency devaluation, privatization of state firms, and the elimination of consumer (food) subsidies because of doubts about the benefits of these reforms or because they believe that these reforms will harm their economic interests. Whether such opposition can stall reform depends on the aggregate political weight of the affected social groups.

Because of politics, some economic policy reforms are adopted and pursued in the developing world and others are delayed and resisted. Economic reform is inherently a political act: It changes the distribution of benefits in society, benefiting some social groups and hurting others. Social groups may oppose reform because of doubts about its benefits or because they know it will harm their economic interests.

Adams shows how three types of reform—currency devaluation, the privatization of state enterprises, and the elimination of consumer (food) subsidies—affect the utility of nine different social groups (including international financial institutions).

When governments try to privatize state-owned enterprises, for example,
more social groups with greater political weight are likely to be disadvantaged than helped. Urban workers, urban bureaucrats, urban students, and the urban poor are likely to "lose out" and will strongly oppose privatization. But the ruling elite and urban politicians are also likely to at least partly resist privatization, fearing that such reform will reduce their economic "rents." More social groups and power points thus oppose privatization than favor it, so this policy reform is likely to be delayed or not implemented at all.

However, social groups do not possess an absolute veto over economic reform, and policy reform can (and often does) occur despite the opposition of certain social groups. It depends on the aggregate political weight of the groups opposing reform. For example, as Adams shows, five social groups either wholly or partly oppose eliminating consumer (food) subsidies, but the combined weight of those groups is only roughly equal to the political weight of the four social groups—international financial institutions, the ruling elite, urban politicians, and urban capitalists—that favor this reform. Politically, consumer subsidies can be eliminated or reduced if the right kind of concern is shown for opposing social groups.

A decade of transition, fear of a levita-

than state is giving way to increased focus on oligarchs who "capture the state." In the capture economy, the policy and legal en-
vironment is shaped to the captor firm's huge advantage, at the expense of the rest of the enterprise sector. This has major implications for policy.

The main challenge of the transition has been to redefine how the state interacts with firms, but little attention has been paid to the flip side of the relationship: how firms influence the state—especially how they exert influence on and collude with public officials to extract advantages. Some firms in transition economies have been able to shape the rules of the game to their own advantage, at considerable social cost, creating what Hellman, Jones, and Kaufmann call a "capture economy" in many countries. In the capture economy, public officials and politicians privately sell underprovided public goods and a range of rent-generating advantages "a la carte" to individual firms.

The authors empirically investigate the dynamics of the capture economy on the basis of new firm-level data from the 1999 Business Environment and Enterprise Performance Survey (BEEPS), which permits the unbundling of corruption into meaningful and measurable components. They contrast state capture (firms shaping and affecting formulation of the rules of the game through private payments to public officials and politicians) with influence (doing the same without recourse to payments) and with administrative corruption ("petty" forms of bribery in connection with the implementation of laws, rules, and regulations). They develop economywide measures for these phenomena, which are then subject to empirical measurement utilizing the BEEPS data.

State capture, influence, and adminis-
trative corruption are all shown to have distinct causes and consequences. Large incumbent firms with formal ties to the state tend to inherit influence as a legacy of the past and tend to enjoy more secure property and contractual rights and higher growth rates. To compete against these influential incumbents, new en-
trants turn to state capture as a strategic choice—not as a substitute for innovation but to compensate for weaknesses in the legal and regulatory framework. When the state underprovides the public goods needed for entry and competition, "captor" firms purchase directly from the state such private benefits as secure property rights and removal of obstacles to im-
proved performance—but only in a capture economy.

Consistent with empirical findings in previous research on petty corruption, administrative corruption—unlike both capture and influence—is not associated with specific benefits for the firm.

The focus of reform should be shifted toward channeling firms' strategies in the direction of more legitimate forms of influence, involving societal "voice," transparency reform, political accountability, and economic competition. Where state capture has distorted reform to create (or preserve) monopolistic structures supported by powerful political interests, the challenge is particularly daunting.

This paper—a product of the Governance, Regulation, and Finance Division, World Bank Institute; the Public Sector Group, Europe and Central Asia Region; and the Office of the Chief Economist, European Bank of Reconstruction and Development—is part of an empirical project on governance in transition. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Diane Billups, room J3-131, telephone 202-473-5818, fax 202-522-8350, email address governancewbi@worldbank.org. For an electronic version of this paper and related research papers and governance data, visit www.worldbank/ wbi/governance/. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at jhellman@worldbank.org or dkaufmann@worldbank.org.
tend public services to rural populations. An explicit consumption subsidy for potable water (targeted to the poorest 20 percent of the population) currently benefits 17 percent of the population.

Cross-subsidies have been virtually eliminated in Chile, and existing subsidies are funded from the national budget. The elimination of cross-subsidies has facilitated competition in some services. Prices have fallen substantially in services that new operators have entered, showing that regulation is a poor substitute for competition.

The Chilean experience shows that it is possible to design direct subsidies (such as the one for drinking water) at relatively low cost to the state. Moreover, putting rural infrastructure projects out to public tender whenever possible has allowed substantial reductions in government spending.

Chile's experience also shows that it is possible to use subsidies that do not distort people's behavior—by making sure that they perceive the marginal cost of providing the service. In rural areas it is advisable to introduce consumption subsidies with an upper limit on the amount subsidized, so that when a family consumes more than the subsidized amount, it perceives at the margin the total cost of providing the service.

In rural zones where there is no infrastructure, investment needs to be subsidized. Users do not pay the long-run marginal cost, but it is important that the rates charged at least cover the short-term marginal cost. In other words, rural utility charges are required to cover the system's operating costs.

For those who argue that the poor would be better off with cash transfers (choosing their own consumption baskets), Serra outlines the arguments for subsidizing utilities, beyond the moral value of giving the poor access to public services considered basic for existence.

This paper—a product of Governance, Regulation, and Finance, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. (45 pages)

### 2446. Forecasting the Demand for Privatized Transport: What Economic Regulators Should Know, and Why

Lourdes Trujillo, Emile Quinet, and Antonio Estache
(September 2000)

This overview of issues that regulators should be aware of in demand forecasting discusses challenges that come with the decision to privatize transport, the perverse incentives introduced when privatization teams use strategic demand forecasts to evaluate assets, the most common problems with demand forecasting, the reasons that demand forecasting matters, and how to think about demand forecasting in the context of regulation.

Forecasting has long been a challenge and will remain so for the foreseeable future. But the analytical instruments and data processing capabilities available through the latest technology and software should allow much better forecasting than transport ministries or regulatory agencies typically observe.

Privatization brings new needs for demand forecasting. More attention is paid to risk under privatization than when investments are publicly financed. And regulators must be able to judge traffic studies done by operators and to learn what strategic behavior influenced these studies.

Many governments and regulators avoid good demand modeling out of lack of conviction that theory and models can do better than the "old hands" of the sector. This is dangerous when privatization changes the nature of business.

For projects amounting to investments of $100–200 million, a cost of $100,000–200,000 is not a reason to reject a reasonable modeling effort. And some private forecasting firms are willing to sell guarantees or insurance with their forecasts to cover significant gaps between forecasts and reality.

This paper—a product of the Governance, Regulation, and Finance Division, World Bank Institute—is part of a larger effort in the institute to increase understanding of infrastructure regulation. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Gabriela Chenet-Smith, room J3-147, telephone 202-473-6370, fax 202-676-9874, email address gchenet@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. (45 pages)

### 2447. Attrition in Longitudinal Household Survey Data: Some Tests for Three Developing-Country Samples

Harold Alderman, Jere R. Behrman, Hans-Peter Kohler, John A. Maluccio, and Susan Cotts Watkins
(September 2000)

Results from this study of the extent and implications of attrition for three longitudinal household surveys from Bolivia, Kenya, and South Africa suggest that multivariate estimates of behavioral relations may not be biased because of high attrition. This suggests that demographers and other social scientists can proceed with collecting longitudinal data to control for unobserved fixed factors and to capture dynamic relationships.

For capturing dynamic demographic relationships, longitudinal household data can have considerable advantages over more widely used cross-sectional data. But because the collection of longitudinal data may be difficult and expensive, analysts must assess the magnitudes of the problems specific to longitudinal but not to cross-sectional data.

One problem that concerns many analysts is that sample attrition may make the interpretation of estimates problematic. Such attrition may be especially severe where there is considerable migration between rural and urban areas. And attrition is likely to be selective on such characteristics as schooling, so high attrition is likely to bias estimates.

Alderman, Behrman, Kohler, Maluccio, and Watkins consider the extent and implications of attrition for three longitudinal household surveys from Bolivia, Kenya, and South Africa that report very high annual attrition rates between survey rounds.

Their estimates indicate that:

- The means for a number of critical outcome and family background variables differ significantly between those who are lost to follow-up and those who are re-interviewed.
A number of family background variables are significant predictors of attrition. Nevertheless, the coefficient estimates for standard family background variables in regressions and probit equations for the majority of outcome variables in all three data sets are not significantly affected by attrition.

So attrition is apparently not a general problem for obtaining consistent estimates of the coefficients of interest for most of these outcomes. These results, which are very similar to those for industrial countries, suggest that multivariate estimates of behavioral relations may not be associated with countries that are socially cohesive and governed by effective public institutions. This would support the collection of longitudinal data.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to evaluate the impact of Bank-funded investments. The study was funded by the Bank's Research Support Budget under the research project “Evaluation of the Impact of Investments in Early Childhood Development” (RPO 682-34). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Sader, room MC3-556, telephone 202-473-3902, fax 202-522-1153, email address psader@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at halderman@worldbank.org, jbehrman@econ.sas.upenn.edu, kohler@demogr.mpd.de, or swatkins@pop.upenn.edu. (39 pages)

2448. On “Good” Politicians and “Bad” Policies: Social Cohesion, Institutions, and Growth
Jo Ritzen, William Easterly, and Michael Woolcock (September 2000)

One of the primary reasons that otherwise good politicians enact bad policies in countries all over the world, but especially in low-income countries, is that they face significant constraints in their efforts to bring about reform. These constraints—the “room for maneuver”—are shaped by the degree of social cohesion in a country and the quality of its institutions.

Social cohesion—that is, the inclusiveness of a country’s communities—is essential for generating the trust needed to implement reforms. Citizens have to trust that the short-term losses that inevitably arise from reform will be more than offset by long-term gains. However, in countries divided along class and ethnic lines and with weak institutions, even the boldest, most civic-minded and well-informed politician (or interest group) will face severe constraints in bringing about policy reform.

Ritzen, Easterly, and Woolcock hypothesize that key development outcomes (particularly economic growth) are more likely to be associated with countries that are both socially cohesive and governed by effective public institutions. They test this hypothesis for the sample of countries with available data.

The authors develop a conceptual framework based on the idea of social cohesion, then review the evidence on which it is based. While several earlier studies have shown that differences in growth rates among developing countries are a result of weak rule of law, lack of democracy, and other institutional deficiencies, Ritzen, Easterly, and Woolcock focus on the social conditions that give rise to these deficiencies. They also seek to establish empirically a causal sequence from social divisions to weak institutions to slow growth.

The essence of their argument, supported by new econometric evidence, is that pro-development policies are comparatively rare in the developing world less because of the moral fiber of politicians (though that surely matters) than because good politicians typically lack the room for maneuver needed to make desired reforms. This lack of maneuverability is a product of insufficient social cohesion and weak institutions.

The authors also explore the determinants of social cohesion, focusing on historical accidents, initial conditions, and natural resource endowments.

Social cohesion should not be seen as a concern primarily of developing and transition economies. Indeed, it is as important in the United Kingdom as in Ukraine, in Canada as in Colombia, in the Netherlands as in Nigeria.

This paper—a joint product of the Office of the Vice President, Development Policy and Macroeconomics and Growth, Development Research Group—is part of a larger effort in the Bank to understand the role of social cohesion and institutions in development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Anne Joy Kibutu, room MC4-320, telephone 202-473-4047, fax 202-522-1158, email address akibutu@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at jritzen@worldbank.org, weasterly@worldbank.org, or mwoolcock@worldbank.org. (35 pages)

2449. Pricing Irrigation Water: A Literature Survey
Robert C. Johansson (September 2000)

Getting prices right and allocating water efficiently will become increasingly important as demand for food and water increases and as water scarcity becomes more of a problem. Pricing water efficiently will help meet the increasing demand, but what is the best way to make pricing more efficient?

As water scarcity and population pressures increase, more countries are adopting water pricing mechanisms as their primary means of regulating the consumption of irrigation water.

The way to allocate water efficiently is to "get the prices right," but how to accomplish this is open to debate. Water pricing methods are sensitive to the social, physical, institutional, and political setting. To assess the costs and benefits of a particular irrigation project, the pricing method must be tailored to local circumstances.

Johansson’s survey of the resource economics literature on irrigation services and pricing will be useful for developing comprehensive guidelines for water policy practitioners. He synthesizes accumulated knowledge about the implementation and performance of various water pricing methods used over the past two decades: volumetric pricing (marginal cost pricing), output and input pricing, per area pricing, tiered pricing, two-part tariffs, and water markets.

Theoretical and practical issues will become increasingly important as demand for food and water increases. Pricing water efficiently will help meet that demand, but what is the best way to make pricing more efficient?

Many argue that water markets offer a solution, but under what circumstances...
2450. Which Firms Do Foreigners Buy? Evidence from the Republic of Korea

Caroline Freund and Simeon Djankov
(September 2000)

Growth induces foreign investment, which tends to focus on high-value-added sectors, on larger and more profitable firms, on firms with low debt, and on firms that export a large share of output.

Using data on mergers and acquisitions involving Korean firms, Freund and Djankov identify which sectors and firms attracted foreign investment after the liberalization of investment activity at the end of 1997.

They find that domestic acquisitions are similar to foreign acquisitions by sector (of both the target and the acquiring firm), but that international transactions are larger than Korean transactions.

This suggests that consolidation is a two-stage process: Firms consolidate first domestically, then internationally.

The authors also find that foreign investment is focused on high-value-added sectors, on larger and more profitable firms, on firms with low debt, and on firms that export a large share of output. Their results suggest that growth induces foreign investment.

This paper—a product of the Financial Economics Unit, Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study the effect of financial liberalization. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rose Vo, room MC9-626, telephone 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at w w w . w o r l d b a n k . o r g / r e s e a r c h/ workingpapers. The author may be contacted at sdjankov@worldbank.org. (25 pages)

2451. Can There Be Growth with Equity? An Initial Assessment of Land Reform in South Africa

Klaus Deininger and Julian May
(September 2000)

South African experience with efforts to implement land reform thus far indicates that to realize the potential and help solve the problems rural areas face, the government's land reform program needs to get beneficiaries, non-governmental organizations, and the private sector more involved. Land reform should empower the poor, improve productivity, and create sustainable rural livelihoods, not just redistribute hectares of land.

Deininger and May use evidence from a survey of about 1,200 beneficiaries of South African land reform to assess the performance of the initial phase of the land reform program. They find that the program has not lived up to the quantitative goals set, but did successfully target the poor. It has led to a significant number of economically successful projects that already generate sustainable revenues. These projects have involved significantly larger shares of poor people than less viable projects, suggesting that increased access to productive assets could be an important path to poverty reduction.

Given the need to develop a diverse and less subsidy-dependent strategy for poverty reduction, suitably adapted land reform could play an important part in restructuring South Africa's rural sector.

Much of this potential has yet to be realized. The authors' analysis points toward clear lessons about program design:

- Increase beneficiary awareness and participation. Shift from a centralized, bureaucratic structure designed for land distribution toward seeing program components as part of an integrated vision of rural development. This would strengthen links to other parts of land reform (including tenure reform), make better use of local synergies (including infrastructure such as housing), and encourage rather than stifle local initiative and decentralized implementation mechanisms.

- Integrate land redistribution into a land policy framework that strengthens existing property rights, especially tenure security for residents of communal areas.

- Ensure transparency, accountability, and the participation of the private sector. These are essential for dispelling fears that land reform is just another means of political favoritism rather than an instrument to transform the rural sector, as is indeed supported by international evidence.

This paper—a product of Rural Development, Development Research Group, and the Bank's Research Support Budget under the research project "Guidelines for Pricing Irrigation Water Based on Efficiency, Implementation, and Equity Concerns." Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Melissa Williams, room MC5-724, telephone 202-885-7297, fax 202-522-3308, email address mwilliams4@worldbank.org. Policy Research Working Papers are also posted on the Web at w w w . w o r l d b a n k . o r g / r e s e a r c h/ workingpapers. The author may be contacted at johao081@tc.umn.edu. (80 pages)

2452. Trends in Private Sector Development in World Bank Education Projects

Shobhana Sosale
(September 2000)

The principle underlying trends in Bank education projects is that strengthening the private sector's role in noncompulsory education over time will release public resources for the compulsory (primary) level. The public and private sectors have complementary roles to play.
Emerging trends in education show the private sector to be playing an increasingly important role in financing and providing educational services in many countries. Private sector development has not arisen primarily through public policy design but has of course been affected by the design and limitations of public policy.

Sosale traces trends in private sector development in 11 of 70 World Bank education projects in 1995–97, asking two questions: What has been the rationale for Bank lending in education? And in countries where there is both privately financed and publicly financed and provided education, how has the Bank encouraged the private sector to thrive?

The 11 country samples reveal that the Bank’s interest in private sector development is basically in capacity-oriented privatization to absorb excess demand for education. This is crucial to the Bank’s general strategy for education lending: promoting access with equity, focusing on efficiency in resource allocation, promoting quality, and supporting capacity building. Absorbing excess demand tends to involve poorer families, usually much poorer than those that take advantage of other forms of privatized education.

The Bank emphasizes capacity-oriented privatization, especially of teacher training for primary and secondary schools, as well as institutional capacity building for tertiary and vocational education.

The underlying principle is that strengthening the private sector’s role in noncompulsory education over time will release public resources for the compulsory (primary) level. The private sector is emerging as a force governments, donors, and other technical assistance agencies cannot ignore.

Often the term private sector encompasses households’ out-of-pocket expenses rather than describing for-profit or not-for-profit (religious or otherwise) sectors. And lumpy investments, supporting both private and public education, are the norm.

This paper—a product of the Education Team, Human Development Network—is part of a larger effort in the network to synthesize and disseminate knowledge about private sector development in education. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Shobhana Sosale, room G8-057, telephone 202-473-6490, fax 202-522-5923, email address ssosale@worldbank.org.

Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. (49 pages)

2453. Designing Financial Safety Nets to Fit Country Circumstances

Edward J. Kane (September 2000)

Kane explains how differences in the informational and contracting environments of countries affect the optimal design of their financial safety nets and their optimal strategies for managing financial crises.

He explains how to design and operate safety nets at minimum cost to taxpayers and well-managed banks in countries whose informational and contracting technologies differ. His basic premise is that optimal regulation is not a one-size-fits-all proposition.

A country’s safety net should be transparent, deterrent to too much risk-taking, and accountable, but Kane shows large differences across countries in the transparency and deterrence banks afford their depositors, highlighting why the design of safety nets must allow for differences in the enforceability of private contracts.

The weaker a country’s informational, ethical, and corporate governance environment, the more a wholly governmental system of explicit deposit guarantees is apt to undermine bank safety and stability. How a country’s safety net evolves depends on the ability of the private and public sectors to value banks, discipline risk-taking, and resolve financial difficulties promptly. And political accountability is essential if the public part of these tasks is to evolve effectively and efficiently.

As a rule of thumb, safety-net managers should avoid either subsidizing or taxing bank risk-taking, says Kane. Even if analysts could formulate a beneficial tax or subsidy rule, it is unlikely that channeling the effect through a government-run deposit insurance system that fails to account publicly for the size of taxpayers’ stake could improve upon more straightforward arrangements.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to design financial safety nets for developing countries. The study was funded by the Bank’s Research Support Budget under the research project “Deposit Insurance” (RPO 682-90).

Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Kari Labrie, room MC3-456, telephone 202-473-1001, fax 202-522-1155, email address klabrie@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at edward.kane@bc.edu. (64 pages)

2454. Political Cycles in a Developing Economy: Effect of Elections in Indian States

Stuti Khemani (September 2000)

Empirical results from India suggest that politicians exert greater effort in managing public works during election years. Surprisingly, there is no evidence of a populist spending spree to sway voters just before elections.

Khemani studies the effect of state legislative assembly elections on the policies of state governments in 14 major states of India, from 1960 to 1994. She identifies the effect of the timing of elections using an instrument for the electoral cycle that distinguishes between constitutionally scheduled elections and midterm polls. She contrasts two levers of policy manipulation—fiscal policy and public service delivery—to distinguish between alternative models of political cycles. The predictions of three models are tested:

- Populist cycles to woo uninformed and myopic voters.
- Signaling models with asymmetric information.
- A moral hazard model with high discounting by political agents.

The empirical results for fiscal policy show that election years have a negative effect on some commodity taxes, a positive effect on investment spending, but no effect on deficits, primarily because consumption spending is reduced. With regard to public service delivery, elections have a positive and large effect on road construction by state public works departments. Strikingly, the fiscal effects are much smaller than the effect on roads.

Khemani argues that the pattern of evidence is inconsistent with the predictions of models of voter myopia and asym-
metric information. She explores an alternative moral hazard model in which the cycle is generated by high political discounting and career concerns persuade politicians to exert greater effort in election years on the management of public works.

This paper—a product of Public Economics, Development Research Group—is part of a larger effort in the group to understand the effect of political institutions on public policy. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC2-609, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at skhemani@worldbank.org. (52 pages)

2455. The Effects on Growth of Commodity Price Uncertainty and Shocks

Jan Dehn
(September 2000)

Commodity export dependency confers ex post shocks and ex ante uncertainty upon producing countries. What reduces growth is not the prospect of volatile world prices, but the actual realization of negative shocks.

Dehn estimates the effects on growth of commodity price shocks and uncertainty within an established empirical growth model. Ex post shocks and ex ante uncertainty have been treated in the empirical literature as if they were synonymous. But they are distinct concepts and it is both theoretically and empirically inappropriate to treat them as synonymous.

He shows that the interaction between policy and aid is robust to the inclusion of variables capturing commodity price movements. More important, his approach departs in three ways from earlier empirical studies of the subject:

- It imposes no priors on how commodity price movements affect growth, but compares and contrasts a range of competing shock and uncertainty specifications.
- Dehn resolves the disagreement about the long-run effect of positive shocks on growth, finding that positive shocks have no long-run impact on growth (that windfalls from trade shocks do not translate into sustainable increases in income).
- He shows that negative shocks have large, highly significant, and negative effects on growth, but that commodity price uncertainty does not affect growth.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to analyze the impact of commodity price risks on developing economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Panos Varangis, room MC3-535, telephone 202-473-3852, fax 202-522-1151, email address pvarangis@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The author may be contacted at jan.dehn@economics.oxford.ac.uk. (62 pages)

2456. Geography and Development

J. Vernon Henderson, Zmarak Shalizi, and Anthony J. Venables
(September 2000)

Why are spatial differences in land rents and wages not bid away by firms and individuals in search of low-cost or high-income locations? Why does economic activity cluster in centers of activity? And what are the consequences of remoteness from existing centers?

The most striking fact about the economic geography of the world is the uneven spatial distribution of economic activity, including the coexistence of economic development and underdevelopment. High-income regions are almost entirely concentrated in a few temperate zones, half of the world’s GDP is produced by 15 percent of the world’s population, and 54 percent of the world’s GDP is produced by countries occupying just 10 percent of the world’s land area. The poorest half of the world’s population produces only 14 percent of the world’s GDP, and 17 of the poorest 20 nations are in tropical Africa. The unevenness is also manifest within countries and within metropolitan concentrations of activity.

Why are these spatial differences in land rents and wages not bid away by firms and individuals in search of low-cost or high-income locations? Why does economic activity cluster in centers of activity? And what are the consequences of remoteness from existing centers? Henderson, Shalizi, and Venables argue that understanding these issues is central for understanding many aspects of economic development and underdevelopment at the international, national, and subcontinental levels.

They review the theoretical and empirical work that illuminates how the spatial relationship between economic units changes and conclude that geography matters for development, but that economic growth is not governed by a geographic deterministic. New economic centers can develop, and the costs of remoteness can be reduced.

Many explicit policy instruments have been used to influence location decisions. But none has been systematically successful, and many have been very costly—in part because they were based on inappropriate expectations. Moreover, many ostensibly nonspatial policies that benefit specific sectors and households have spatial consequences since the targeted sectors and households are not distributed uniformly across space. These nonspatial policies can sometimes dominate explicitly spatial policies. Further work is needed to better understand these dynamics in developing countries.

This paper—a product of Infrastructure and Environment, Development Research Group—is part of a larger effort in the group to analyze the role of economic geography and urbanization in the development process. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Roula Yazigi, room MC2-533, telephone 202-473-7176, fax 202-522-3230, email address ryazigi@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. Zmarak Shalizi may be contacted at zshalizi@worldbank.org. (35 pages)
2457. Urban and Regional Dynamics in Poland

Uwe Deichmann and Vernon Henderson
(September 2000)

Poland's continuing housing shortage reduces labor mobility, which reduces potential growth. Improving housing is essential to improving economic growth in Poland.

In this exploration of urban and regional dynamics in Poland after the transition, Deichmann and Henderson find that the degree of urbanization and primacy remains low in Poland. The largest cities are not growing at the rate that would be expected if post-transition adjustments were operating freely. As a result, Poland is not fully realizing external economies from urban agglomeration.

Internal migration decreased significantly in the 1990s, with rural-to-urban migration declining dramatically. Current population levels everywhere seem frozen at a degree of urbanization that is low by international standards. Migration levels do not respond to unemployment differentials, perhaps because Poland's continuing housing shortage deters migration. Housing construction, which was already low, fell by half in the 1990s and has only recently begun a slight recovery.

A significant number of mostly young and educated temporary migrants leave Poland annually, many to find employment abroad. This may reduce pressure on the Polish labor market but also keeps dynamic actors out of the domestic labor force, reducing growth in urban businesses and industry.

Employment in manufacturing and agriculture is relatively concentrated, but specialization seems to have declined in recent years, perhaps reflecting barriers to labor mobility—which could limit growth.

That employment in the manufacturing sector is quite concentrated is to be expected in a formerly planned economy. But employment in the service sector is also quite concentrated. A geographic divergence of service activities is not explained by dominant growth in specialized financial and business services in the capital alone.

Poland's policymakers should find a way to provide housing, thereby reducing barriers to labor mobility and growth.

This paper—a joint product of Infrastructure and Environment, Development Research Group, and the Infrastructure Sector Unit, Europe and Central Asia Region—is part of a larger effort in the Bank to analyze the role of economic geography and urbanization in the development process, particularly as influenced by infrastructure investment and political decentralization. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Roula Yazigi, room MC2-533, telephone 202-473-7176, fax 202-522-0056, email address ryazigi@worldbank.org. Policy Research Working Papers are also posted on the Web at www.worldbank.org/research/workingpapers. The authors may be contacted at udeichmann@worldbank.org or vernon_henderson@brown.edu. (40 pages)