ABSTRACTS

Policy Research Working Paper Series

Numbers 2803–2856

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The World Bank
Research Advisory Staff
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1. **Prepare a 250–300 word abstract.** The abstract should set out the main questions addressed in the paper and the key findings, putting them (if appropriate) in the context of the relevant literature. For empirical papers, briefly describe the data, including such details as the period covered, the countries or country groups included, the size of the sample, and the type of survey, as appropriate. ***The abstract will be published as submitted.*** To ensure maximum impact for your work, consult existing working paper abstracts and test your abstract by asking a colleague who is not familiar with the paper to read it before submission.

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Produced by the Research Advisory Staff

Policy Research Working Paper Series

Abstracts

Numbers 2803–2856

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Education

Health and population

2803. Determinants of Agricultural Growth in Indonesia, the Philippines, and Thailand

Yair Mundlak, Donald F. Larson, and Rita Butzer
(March 2002)

The introduction of new high-yielding varieties of cereals in the 1960s, know as the green revolution, changed dramatically the food supply in Asia as well as in other countries. Mundlak, Larson, and Butzer examine over an extended period the growth consequences for agriculture in Indonesia, the Philippines, and Thailand. Despite geographic proximity, similar climate, and other shared characteristics, gains in productivity and income differed significantly among the countries. The authors quantify these differences and examine their determinants.

Mundlak, Larson, and Butzer find that the new technology changed the returns to fertilizers, irrigated land, and capital, all of which proved scarce to varying degrees. Complementing technology-related changes in factor use were investments—public and private—driven in part by policy. The authors find that factor accumulation played an important role in output growth and that accumulations from policy-driven investments in human capital and public infrastructure were important sources of productivity gains. They conclude that policies that ease constraints on factor markets and promote public investment in people and infrastructure provide the best opportunities for agricultural growth.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to understand appropriate policies that promote rural development. The study was funded by the Bank's Research Support Budget under the research project "Dynamism of Rural Sector Development" (RPO 683-06). Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Pauline Kokila, room MC3-604, telephone 202-473-3716, fax 202-522-1151, email address pkokila@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mundlak@agri.huji.ac.il, dlarson@worldbank.org, or rbutzer@umich.edu. (74 pages)

2804. Liberalizing Trade in Agriculture: Developing Countries in Asia and the Post-Doha Agenda

John S. Wilson
(March 2002)

Wilson provides an overview and data relevant to the interests of developing countries as they engage in continuing agricultural trade negotiations set forth in the World Trade Organization Ministerial held in Doha, Qatar in November 2001. He examines country performance in agricultural trade, income levels, and population characteristics, with a focus on developing country members of the Asian Development Bank.

The author concludes that trends in agricultural trade in the past 10 years are quite heterogeneous across developing regions. Shares of agriculture in GDP are still high in the East Asia and Pacific and South Asia regions. Moreover, data indicate that trade reform in export partners, particularly OECD countries, will affect a significant share of the population in these developing countries, resulting in rural poverty alleviation. Trade liberalization is expected to benefit net exporter countries, particularly those that are highly open to trade. What is also important, but often neglected, is a country's pattern of specialization between domestic supply and exports. The impact of trade reform through the WTO negotiations, particularly reforms undertaken in exporting partners can therefore have important implications in the post-Doha development agenda.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to explore the link between standards, development, and trade. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at jswilson@worldbank.org. (22 pages)

2805. To Spray or Not to Spray? Pesticides, Banana Exports, and Food Safety

John S. Wilson and Tsunehiro Otsuki
(March 2002)

How governments regulate food safety and environmental protection, including pesticide residue levels, has important implications for trade. The World Trade Organization (WTO) Ministerial held in Doha, Qatar in November 2001 included statements on standards and their impact on market access for developing countries. These issues will continue to be important in trade policy dialogues. It is assumed—and evidence from recent analysis confirms—that food safety standards can affect the ability of agricultural producers to meet regulatory standards set by importing countries. Wilson and Otsuki explore a fundamental question in food safety and environmental standards: Do regulations on pesticide have an effect on trade?

The authors examine regulatory data from 11 OECD importing countries and trade data from 19 exporting countries. The results suggest that a 10 percent increase in regulatory stringency—tighter restrictions on the pesticide chlorpyrifos—leads to a decrease in banana imports by 14.8 percent. This represents a significant impact on trade and affect prospects of developing countries who continue to rely on exports of agricultural commodities, such as bananas. The findings also suggest that the lack of consensus on international standards and divergent national regulations on pesticides is costly. For example, the authors estimate that if the world were to adopt a standard at a level of regulatory stringency suggested by Codex (the body charged with setting global standards in this area), in contrast with one set at the level in place in the European Union, there would be a US$5.3 billion loss in world exports.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to examine the link between trade, regulation, and development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.

worldbank.org. The authors may be contacted at jswilson@worldbank.org or totsuki@worldbank.org. (28 pages)

2806. Dirty Exports and Environmental Regulation: Do Standards Matter to Trade?

John S. Wilson, Tsunehiro Otsuki, and Mirvat Sewadeh
(March 2002)

How to address the link between environmental regulation and trade was an important part of discussions at the World Trade Organization Ministerial in Doha, Qatar in November 2001. Trade ministers agreed to launch negotiations on trade and the environment, specifically clarification of WTO rules.

Wilson, Otsuki, and Sewadeh address an important part of the background context for deciding whether or how to link trade agreements to the environment from a developing country perspective. The authors ask whether environmental regulations affect exports of pollution-intensive or "dirty" goods in 24 countries between 1994 and 1998. Based on a Heckscher-Ohlin-Vanek (HOV) model, net exports in five pollution-intensive industries are regressed on factor endowments and measures of environmental standards (legislation in force). The results suggest that, if country heterogeneity such as enforcement of environmental regulations is controlled for, more stringent environmental standards imply lower net exports of metal mining, nonferrous metals, iron, and steel and chemicals. The authors find that a trade agreement on a common environmental standard will cost a non-OECD country substantially more than an OECD country. Developing countries will, on average, reduce exports of the five pollution-intensive products by 0.37 percent of GNP. This represents 11 percent of annual exports of these products from the 24 studied countries.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to explore the link between standards, development, and trade. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at jswilson@worldbank.org, totsuki@worldbank.org, or msewadeh@worldbank.org. (33 pages)

2807. The Role of Natural Resources in Fundamental Tax Reform in the Russian Federation

Benoît Bosquet
(March 2002)

The Russian Federation has one of the richest natural resource endowments in the world. Despite their importance in the Russian economy, natural resources do not contribute as much as they could to public revenues. Large resource rents (excess payments, or above-normal profits generated by natural resources in scarce supply) are dissipated through subsidies and wastage, or appropriated by private interests. Failure to tax this rent means that taxes must be levied elsewhere (on capital and labor) to sustain revenues, thereby depressing investment and employment, or that potential revenues are foregone. Failure to reinvest rent means that Russia perpetuates the tradition of exporting low value-added raw materials and excessive capital outflows, and retards its transition to sustainable economic development.

Bosquet provides estimates of the average and total current rent on crude oil, natural gas, and round wood in Russia. The sum of appropriated rent on oil and gas was estimated at US$9 billion in 1999 (in excess of $15 billion in 2000), or about 18 percent of consolidated tax revenues. The appropriated rent on round wood was estimated at US$191–1,032 million.

A more appropriate natural resource taxation system would enhance the fiscal role of natural resources as well as create better incentives for resource conservation and environmental protection. Two conditions further reinforce the appeal of such a reform. First, the state still owns most of the natural resources, which theoretically facilitates change in resource pricing and taxation. Second, the cost of adjusting the tax system is relatively low at this time since Russian tax policy is undergoing thorough reform.

Increasing rent taxation should be relatively straightforward since the system already exists. What mainly needs to be done is to differentiate the fees to reflect objective rent-generating conditions by withdrawing the rent and imposing higher taxes on profitable resource deposits. A seemingly desirable instrument—true differentiation of rental payments—does not exist in Russia despite legislative provisions that it should. Several natural resource taxes are specific taxes (set per volume), regardless of the market price or production cost. Such taxes favor profitable deposits and penalize marginal ones.

The author's study should be given serious consideration in the renewed debate on tax reform and in the context of Russia's structural reform program. It is in line with the proposals of the new governmental economic strategy, particularly with boosting the share of natural resources in generating revenue and reducing income tax rates. The extra advantage to rent taxation and revenue recycling is that it would allow the government to lower the tax burden without leading to a budget deficit.

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 Bank to understand the quality of fiscal adjustment in Central and Eastern Europe. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Doreen Duff, mail stop H4-407, telephone 202-473-9506, fax 202-522-2754, email address dduff1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at bbosquet@worldbank.org. (66 pages)

2808. A Capital Accord for Emerging Economies?

Andrew Powell
(March 2002)

The Basel 1988 Capital Accord is arguably the most successful of all recent financial "standards." Although it was designed for internationally active banks in G10 countries, more than 100 countries claim to adhere to it, and many apply the Accord to all banks. Significant changes to this

Accord are currently under discussion. Powell reviews the current proposals (published in January 2001) from the standpoint of an emerging market. He then addresses how implementation in G10 countries will affect the cost of capital to emerging economies. The new proposals make considerable advances in linking risk and regulatory capital for internationally active banks, especially for their corporate loan book. But the corporate-calibrated internal ratings-based (IRB) approach leads to significant changes in capital requirements and spreads for banks that lend to emerging countries. The author proposes that for sovereign lending, banks should develop internal ratings according to an S&P or Moody's scale, and capital charges be levied at the corresponding weights given by the standardized approach. Powell argues that the more detailed and specific the proposals are for G10 internationally active banks, the less relevant the proposals will be for non-G10 countries that wish to implement the new Accord for all banks. Indeed, many emerging countries will implement the 'standardized' approach, in which case, given the limited universe of rated risks, little will change. Alternatively, emerging countries will attempt to implement an IRB approach, but with significant problems implementing and calibrating the parameters—or inappropriate use of G10 calibrations. At the same time, banks in emerging economies remain the most important vehicle for financial intermediation and the appropriate regulation of bank capital one of the most important issues for financial sectors. Powell suggests that additional alternatives should be included or, failing that, the time may have come specifically for an Accord for emerging economies.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study the impact of financial regulation 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, fax 202-522-2031, email address emekhova@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at apowell @utdt.edu. (39 pages)

2809. On the Measurement and Impact of Fiscal Decentralization

Robert D. Ebel and Serdar Yilmaz
(March 2002)

The typical post-Bretton Woods era development approach that emphasized central government-led development efforts has changed dramatically, and local governments have clearly emerged as players in development policy. The thinking about what is important to achieve in development objectives is changing as fiscal decentralization reforms are being pursued by many countries around the world. In this context, a number of studies have attempted to quantify the impact of decentralization by relating some measure of it to economic outcomes of fiscal stability, economic growth, and public sector size. But decentralization is surprisingly difficult to measure. Nearly all cases examining the relationship between decentralization and macroeconomic performance have relied on the Government Finance Statistics (GFS) of the International Monetary Fund. However, despite its merits, GFS falls short in providing a full picture of fiscal decentralization. For some countries, however, there is data that more accurately captures fiscal responsibilities among different types of governments.

This paper—a product of the Economic Policy and Poverty Reduction Division, World Bank Institute—is part of a larger effort in the institute to serve as a knowledge center and as a partner to achieve poverty reduction in developing and transition countries. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michelle Morris, mail stop J4-403, telephone 202-473-7285, fax 202-676-9810, email address fiscal_decentralization@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at rebel @worldbank.org or syilmaz@worldbank.org. (26 pages)

2810. Growth, Distribution, and Poverty in Africa: Messages from the 1990s

Luc Christiaensen, Lionel Demery, and Stefano Paternostro
(March 2002)

Christiaensen, Demery, and Paternostro review recent evidence on the trends in household well-being in Africa during the 1990s. They draw on the findings of a series of studies on poverty dynamics that use the better data sets now available. The authors begin by taking a broad view of poverty, tracing changes in both income poverty and in other more direct measures of individual welfare. Experiences have been varied: several countries have seen a sharp decline in poverty, while some have witnessed a marked increase. Yet, in the aggregate, economic growth has been pro-poor. Nonetheless, the aggregate numbers also hide significant and systematic distributional effects which have caused some groups to be left behind.

The authors draw four key conclusions:

- Economic policy reforms (improving macroeconomic balances and liberalizing markets) have been conducive to reducing poverty.
- Market connectedness is key for the poor to benefit from new opportunities generated by economic growth. Some population groups and regions, by virtue of their sheer remoteness, have been left behind when growth picks up.
- Education and access to land further condition the extent to which households can benefit from economic opportunities and escape poverty.
- Finally, rainfall variations and ill health are found to have profound effects on poverty outcomes in Africa underscoring the significance of social protection in a poverty reduction strategy.

This paper—a product of Poverty Reduction and Economic Management 3, Africa Technical Families—is part of a larger effort to review progress in poverty reduction in Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Nadege Nouviale, room J7-269, telephone 202-473-4514, fax 202-473-8466, email address nnouviale @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at lchristiaensen

@worldbank.org, ldemery@worldbank.org, or spaternostro@worldbank.org. (37 pages)

2811. The Epidemiological Impact of an HIV/AIDS Vaccine in Developing Countries

John Stover, Geoff P. Garnett, Steve Seitz, and Steven Forsythe
(March 2002)

Many people see an effective preventive AIDS vaccine as the best solution to the HIV/AIDS pandemic. Ten years ago many scientists had hoped that a vaccine would be available by now. Most scientists are still optimistic that vaccines will be developed and many candidates are being tested. Strategies to implement HIV/AIDS vaccination need to be developed to be ready when vaccines do become available. The nature of those programs will depend on the characteristics of each vaccine. How much does it cost? How effective is it? How long does protection last? The answers to these and other questions will help determine issues such as: What will be the impact of the vaccine on the epidemic? Who should be vaccinated? Will an AIDS vaccine be more cost-effective than other prevention measures? Will other measures still be necessary? What will happen to the epidemic if vaccination leads to riskier behavior? How much funding will be needed?

Stover, Garnett, Seitz, and Forsythe use two computer simulation models to investigate the effects of various vaccine characteristics and implementation strategies on the impact and cost-effectiveness of vaccines in different contexts. A simulation model is applied to data from rural Zimbabwe and the iwgAIDS model is applied to Kampala (Uganda) and Thailand. The models are used to investigate the effects of efficacy, duration, cost, and type of protection on impact and cost-effectiveness. The models also show the merits of targeting public subsidies to various population groups: all adults, teenagers, high-risk groups, and women of reproductive age. The impact of vaccines on the epidemic is compared with the impact of other prevention interventions such as condom use and behavior change. Finally, the models are used to explore the extent with which behavioral reversals may erode the positive benefits of the vaccine.

A highly effective, long-lasting, inexpensive vaccine would be ideal and could make a major contribution in controlling the HIV/AIDS pandemic. But vaccines that do not attain this ideal can still be useful. A vaccine with 50 percent efficacy and 10 years duration supplied to 65 percent of all adults could reduce HIV incidence by 25 to 60 percent, depending on the context and stage of the epidemic. Better efficacy and longer duration would provide even more impact. Programs focused on teenagers or high-risk populations have less overall impact but would provide significant benefits at much less cost than those reaching all adults. Behavioral reversals could erode much of the benefits of vaccination programs so it will be important to combine vaccination with continued messages about the importance of safe behaviors.

The cost of the vaccines is not known at this time. At a cost of $10 or $20 per person vaccinated, the cost per infection averted would be as low or lower than other prevention interventions. Higher costs for the vaccines and the need for many booster shots could reduce the cost-effectiveness significantly.

This paper—a product of Public Services, Development Research Group—is part of a joint research project with the European Commission on "The Economics of AIDS Vaccines in Developing Countries." Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, mail stop MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at j.stover@tfgi.com, g.garnett@ic.ac.uk, s-seitz@uiuc.edu, or s.forsythe@tfgi.com. (30 pages)

2812. Can Financial Markets be Tapped to Help Poor People Cope with Weather Risks?

Jerry Skees, Panos Varangis, Donald Larson, and Paul Siegel
(March 2002)

Poor households in rural areas are particularly vulnerable to risks that reduce incomes and increase expenditures. Most past research has focused on risk-coping strategies for the rural poor, specifically on micro-level and household actions. These are risks that can be shared within a community or extended family. These strategies are effective for independent risks, but ineffective for covariate or systemic risks.

Skees, Varangis, Larson, and Siegel focus on private and public mechanisms for managing covariate risk for natural disasters. When many households within the same community face risks that create losses for all, traditional coping mechanisms are likely to fail. Such covariate risks are not uncommon in many developing countries, especially where farming remains a major source of income. The authors focus on risks related to weather events (such as excess rain, droughts, freezes, and high winds) that have a severe impact on rural incomes. Weather insurance could cover the covariate risk for a community of poor households through formal and informal risk-sharing arrangements among households that are purchasing these weather contracts. Given recent Mexican innovations targeted at helping the poor cope with catastrophic weather events, the authors use Mexico as a case study.

In Mexico, poor households are exposed to systemic risks, such as droughts and floods, that affect the economic livelihood of their region. Catastrophic insurance is useful for small farmers, although commercially oriented small farmers may wish to obtain coverage for less catastrophic events. Weather insurance could meet this need. It pays out according to the frequency and intensity of specific weather events. Because weather insurance depends on the occurrence and objective measure of intensity of a specific event, it does not require individual farm inspection that can be very costly for small farms.

The authors argue that a key issue of delivering insurance to small farmers is the existence of producer organizations. In Mexico, the farmer mutual insurance funds provide a good example. These funds provide insurance to their members by pulling together resources to pay for future indemnities and reinsures itself from major systemic risks that could hurt simultaneously all their members.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to find new approaches to help rural households cope with risks. Copies of the paper are available free from the World Bank, 1818

H Street NW, Washington, DC 20433. Please contact Pauline Kokila, room MC3-604, telephone 202-473-3716, fax 202-522-1151, email address pkokila@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at jskees@pop.uky.edu, pvarangis @worldbank.org, dlarson@worldbank.org, or psiegel@worldbank.org. (24 pages)

2813. The Collective Model of the Household and an Unexpected Implication for Child Labor: Hypothesis and an Empirical Test

Kaushik Basu and Ranjan Ray
(March 2002)

Basu and Ray use the collective model of the household and show, theoretically, that as the woman's power rises, child labor will initially fall, but beyond a point it will tend to rise again. A household with a balanced power structure between the husband and the wife is least likely to send its children to work. An empirical test of this relationship using data from Nepal strongly corroborates the theoretical hypothesis.

This paper—a product of the Office of the Senior Vice President, Development Economics—is part of a larger effort in the Bank to understand how gender affects development outcomes and to identify the causes of poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Narin Jameson, room MC4-333, telephone 202-473-0677, fax 202-522-1158, email address njameson @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at kbasu@mit.edu or ranjan.ray@utas.edu.au. (26 pages)

2814. Estimating the Endogenously Determined Intrahousehold Balance of Power and Its Impact on Expenditure Pattern: Evidence from Nepal

Gayatri Koolwal and Ranjan Ray
(March 2002)

The collective approach to household behavior relaxes the restrictive features of the unitary model by specifying household welfare as a weighted combination of the individuals' utilities. But the weights are assumed fixed or exogenous to the analysis. Koolwal and Ray extend the collective approach by proposing and estimating a framework where the weights are determined and simultaneously estimated with the household outcomes. The authors present Nepalese evidence that suggests that a woman's share of household earnings understates her "power" in making household decisions. An increase in the woman's educational experience leads to a rise in her bargaining power. The results also reveal some interesting nonmonotonic relationships between a woman's "power" and the household's expenditure outcomes.

This paper—a product of the Office of the Senior Vice President, Development Economics—is part of a larger effort in the Bank to understand how gender affects development outcomes and to identify the causes of poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Narin Jameson, room MC4-333, telephone 202-473-0677, fax 202-522-1158, email address njameson @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at gbk5@cornell.edu or ranjan.ray@utas.edu.au. (15 pages)

2815. Pricing Currency Risk: Facts and Puzzles from Currency Boards

Sergio L. Schmukler and Luis Servén
(March 2002)

Schmukler and Servén investigate the patterns and determinants of the currency risk premium in two currency boards—Argentina and Hong Kong. Despite the presumed rigidity of currency boards, currency premium is almost always positive and at times very large. Its term structure is usually upward sloping, but flattens out or even becomes inverted at times of turbulence. Currency premia differ across markets. The forward discount typically exceeds the currency premium derived from interbank rates, particularly during times of crisis. The large magnitude of these cross-market differences can be the consequence of unexploited arbitrage opportunities, market segmentation, or other risks embedded in typical measures of currency risk. The premium and its term structure depend on domestic and global factors related to devaluation expectations and risk perceptions.

This paper—a product of the Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand how capital market and exchange rate regimes work. 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 http://econ.worldbank.org. The authors may be contacted at sschmukler @worldbank.org or lserven@worldbank.org. (76 pages)

2816. Explaining the Migration of Stocks from Exchanges in Emerging Economies to International Centers

Stijn Claessens, Daniela Klingebiel, and Sergio L. Schmukler
(March 2002)

Claessens, Klingebiel, and Schmukler study the determinants of the growing migration of stock market activity to international financial centers. They use a sample of 77 countries and document that higher economic growth and more macroeconomic stability help stock market development. Countries with higher income per capita, sounder macroeconomic policies, more efficient legal systems, better shareholder protection, and more open financial markets tend to have larger and more liquid stock markets. The authors show that these factors also drive the degree with which capital raising, listing, and trading have been migrating to international financial centers. As fundamentals improve and technology advances, this migration will likely increase and domestic stock market activity may become too little to support local markets. For many emerging economies, the best policy is to establish sound fundamentals but not necessarily the trading, or even listing of securities locally.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand financial globalization and capital market development. 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 http://econ.worldbank.org. The authors may be contacted at stijn@fee.uva.nl, dklingebiel@worldbank.org, or sschmukler@worldbank.org. (38 pages)

2817. Does Sequencing Matter? Regulation and Privatization in Telecommunications Reforms

Scott Wallsten
(April 2002)

The question of the most effective order of reforming state-owned enterprises has been hotly debated over the years. In the early 1990s many western advisers encouraged Eastern European countries and the former Soviet Union to privatize firms quickly under the assumption that market institutions would develop once firms were privately owned. The thinking since then has emphasized the importance of establishing an institutional framework conducive to promoting competition *before* privatizing firms. To date, there has been little empirical work clarifying the debate.

Wallsten attempts to address this gap by examining the effects of the sequence of reform in telecommunications, particularly the effects of establishing a regulatory authority prior to privatizing incumbent telecommunications firms.

Consistent with current thinking, Wallsten finds that countries that established separate regulatory authorities prior to privatization saw increased telecommunications investment, fixed telephone penetration, and cellular penetration compared with countries that did not. Moreover, he finds that investors are willing to pay more for telecommunications firms in countries that established a regulatory authority before privatization. This increased willingness to pay is consistent with the hypothesis that investors require a risk premium to invest where regulatory rules remain unclear.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to understand network industry reforms. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Sintim-Aboagye, room MC3-422, telephone 202-473-7644, fax 202-522-1155, email address psintimaboagye @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at swallsten @worldbank.org. (21 pages)

2818. Corporate Governance, Investor Protection, and Performance in Emerging Markets

Leora F. Klapper and Inessa Love
(April 2002)

Recent research studying the link between law and finance has concentrated on country-level investor protection measures and focused on differences in legal systems across countries and legal families. Klapper and Love extend this literature and provide a study of firm-level corporate governance practices across emerging markets and a greater understanding of the environments under which corporate governance matters more. Their empirical tests show that better corporate governance is highly correlated with better operating performance and market valuation. More important, the authors provide evidence showing that firm-level corporate governance provisions matter more in countries with weak legal environments. These results suggest that firms can partially compensate for ineffective laws and enforcement by establishing good corporate governance and providing credible investor protection. The authors' tests also show that firm-level governance and performance is lower in countries with weak legal environments, suggesting that improving the legal system should remain a priority for policymakers.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study corporate governance around the world. 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 http://econ.worldbank.org. The authors may be contacted at lklapper@worldbank.org or ilove @worldbank.org. (32 pages)

2819. Goals for Development: History, Prospects, and Costs

Shantayanan Devarajan, Margaret J. Miller, and Eric V. Swanson
(April 2002)

The Millennium Development Goals set quantitative targets for poverty reduction and improvements in health, education, gender equality, the environment, and other aspects of human welfare. At existing rates of progress many countries will fall short of these goals. However, if developing countries take steps to improve their policies and increased financial resources are made available, significant additional progress toward the goals is possible.

Devarajan, Miller, and Swanson provide a preliminary estimate of the additional financial resources which would be required if countries would work vigorously toward meeting the Millennium Development Goals. Two estimates of the resource gap are developed, one by estimating the additional resources necessary to increase economic growth so as to reduce income poverty, the other by estimating the cost of meeting specific goals in health, education, and the environment. Both estimates yield a figure in the range of \$40–\$70 billion in additional assistance per year, which is in line with estimates from other international development agencies and which would roughly represent a doubling of official aid flows over 2000 levels. While the authors believe this is a reasonable first approximation of the costs associated with achieving the Millennium Development Goals, it should be interpreted with caution for several reasons, including the lack of empirical data in many countries to estimate the relationship between expenditures on health or education and related outcomes, or the relationship between investment and growth, the sensitivity of the results to changes in the policy environment (both at the macroeconomic and sector level, and with respect to international trade), and opportunities for increased—and more efficient—domestic resource mobilization.

This paper—a product of the Office of the Vice President, Human Development Network, and the Development Data Group—is part of a larger effort in the Bank to accelerate progress toward the Millennium Development Goals. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washing-

ton, DC 20433. Please contact Susan Brickland, room G8-015, telephone 202-473-0944, fax 202-522-3235, email address sbrickland@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at sdevarajan@worldbank.org, mmiller5 @worldbank.org, or eswanson @worldbank.org. (38 pages)

2820. The Privatization of the Russian Coal Industry: Policies and Processes in the Transformation of a Major Industry

Igor Artemiev and Michael Haney
(April 2002)

In the early 1990s the Russian Federation implemented mass privatization with swift ownership changes in many industries. A notable exception was the coal sector, one the world's largest, which was in deep crisis and unable to function without massive subsidies. The government undertook a far-reaching program of sector restructuring, closing heavily loss-making mines and cutting subsidies. The positive impact of the restructuring program led to a slow but sustained improvement in the coal industry's attractiveness to private investors. By the end of 2001, some 77 percent of coal output was accounted for by private operators.

Artemiev and Haney provide an overview of the privatization of the Russian coal industry. They review the salient aspects of the government's privatization policy as it evolved over the years and look at the reasons for the successes and pitfalls encountered along the way. The authors describe in detail specific procedures and methods of sale. They provide a profile of the new owners of the industry and reasons for a different approach to privatizing an industry with a record of serious social, environmental, and labor problems, and look at the risks ahead.

This paper—a product of the Private Sector Advisory Services Department and the Infrastructure and Energy Department, Europe and Central Asia Region—is part of a larger effort to evaluate Bank interventions that have a significant private sector development component. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Victoria Joseph, room I9-031, telephone 202-473-2155, fax 202-522-2029, email address vjoseph@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at iartemiev @worldbank.org or mhaney@worldbank.org. (28 pages)

2821. Income, Wealth, and Socialization in Argentina: Provocative Responses from Individuals

Daniel Lederman
(April 2002)

Lederman focuses on two objectives in his study: (1) to establish a baseline measurement of the level and geographic distribution of social capital in Argentina, and (2) to identify its empirical determinants.

The study's survey questionnaire provides individual-level data on the population's participation in social organizations and willingness to trust members of its community. Probit models are estimated to explain the individual's decision to participate and to trust strangers, and individual-household and community characteristics are used as explanatory variables. Potential simultaneity and endogeneity problems afflicting the empirical models are examined.

The main determinants of the probability of participation in Argentina are age, age squared, household income (and perhaps income squared), rural communities (perhaps due to lower probabilities of migration among rural residents since most migrants live in urban centers), community or provincial unemployment rates, and individual trust.

In contrast, the main determinants of trust are age and age squared (but with opposite signs to those exhibited by probability of participation), household wealth (but not its squared term nor household income), participation (as shown by the Seemingly Unrelated Regressions Probit results on the cross-correlation between the two social capital models), and community or provincial unemployment rates and income inequality. It is noteworthy that the common question on trust used in the U.S. General Social Survey and in the World Values Survey yields results whereby communities with higher "trust" rates actually have lower social participation rates.

Finally, participation in organizations with participatory leadership selection mechanisms are more likely to produce interpersonal trust than other forms of participation.

This paper—a product of the Office of the Chief Economist, Latin America and the Caribbean Region—is part of a larger effort in the region to understand the causes and consequences of social capital. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Soto, room I8-018, telephone 202-473-7892, fax 202-522-7528, email address psoto@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at dlederman @worldbank.org. (51 pages)

2822. An Econometric Analysis of the Creditworthiness of IBRD Borrowers

David Mckenzie
(April 2002)

Mckenzie econometrically ascertains the determinants of default to the International Bank for Reconstruction and Development (IBRD) through panel logit analysis. Creditworthiness with a lag of one period is determined by the extent of arrears to private creditors, the proportion of total debt service that is being paid, the government budget deficit, the extent of military involvement in the government of a country, and by the G7's current account balance.

Default to the IBRD falls into a graduated hierarchy, whereby default occurs first to Paris Club and commercial bank creditors, with subsequent default triggered by portfolios with high proportions of IBRD and short-term debt, as well as the factors mentioned above. Default to these other creditor groups can be explained by more traditional country risk variables, although Mckenzie's analysis highlights the importance of political and external factors in explaining default to all creditors studied. He finds sovereign default to be a state-dependent process, whereby the repayment behavior of a country changes once it enters into default.

Operationally, Mckenzie arrives at a model that can be used to assess short-term creditworthiness, although data imperfections and availability still limit the usefulness of the model for some countries. Longer-term risk assessment proves more difficult, which raises operational questions for the IBRD.

This paper—a product of the Credit Risk Division, Office of the Senior Vice President and Chief Financial Officer—is part of a larger effort in the Bank to monitor the creditworthiness of IBRD borrowers. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Clarita Mendoza, room MC6-120, telephone 202-458-0599, fax 202-522-2475, email address cmendoza@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at mcken@stanford.edu. (33 pages)

2823. Real Exchange Rate Uncertainty and Private Investment in Developing Countries

Luis Servén
(April 2002)

Servén examines empirically the link between real exchange rate uncertainty and private investment in developing countries using a large cross country-time series data set. He builds a GARCH-based measure of real exchange rate volatility and finds that it has a strong negative impact on investment, after controlling for other standard investment determinants and taking into account their potential endogeneity. The impact of uncertainty is not uniform, however. There is some evidence of threshold effects, so that uncertainty only matters when it exceeds some critical level. In addition, the negative impact of real exchange rate uncertainty on investment is significantly larger in economies that are highly open and in those with less developed financial systems.

This paper—a product of the Office of the Chief Economist, Latin America and the Caribbean Region—is part of a larger effort in the region to assess the effects of macroeconomic volatility. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Patricia Soto, room I8-018, telephone 202-473-7892, fax 202-522-7528, email address psoto @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at lserven@worldbank.org. (18 pages)

2824. Trade Policy and Labor Services: Final Status Options for the West Bank and Gaza

Maurice Schiff
(April 2002)

Schiff considers the policy options of the West Bank and Gaza with respect to trade and the export of labor services. He concludes that:

- Nondiscriminatory trade policy is unambiguously superior to a free trade agreement with Israel.
- The West Bank and Gaza should pursue a nondiscriminatory trade policy with all its neighbors, but *only* on the condition that the trade policy be open, transparent, and enforced by a credible lock-in mechanism. Otherwise, a customs union with Israel may be preferable.
- The Palestinian Authority should establish a system of fee-based permits for Palestinians working in Israel.
- The Palestinian Authority should consider allowing Jordanians access to the West Bank and Gaza labor market.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to analyze trade and regional integration policies in the Middle East. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at mschiff@worldbank.org. (38 pages)

2825. Demand for Imports in Venezuela: A Structural Time Series Approach

Mario A. Cuevas
(April 2002)

Using structural time series models, Cuevas estimates common stochastic trends of real GDP and imports in Venezuela from 1974–2000. The real imports trend drifts upward at almost twice the rate of growth of GDP. This highlights the powerful structural tendency toward increasing imports in Venezuela. The author also explicitly estimates common stochastic cycles, which he finds to have 5 and 17 year periods. In addition, he finds that a 1 percent real exchange rate appreciation leads to a 0.4 percent increase in imports. And in the long-run, 1 percent real GDP growth is associated with 1.7 percent real imports growth. The author also shows that the GDP elasticity of imports uniformly falls with cycle period, with the elasticity reaching 4.55 at the frequency associated with the 5–year cycle. A powerful imports responsiveness at the higher cycle frequency is associated with the recurrence of external imbalances in Venezuela.

This paper—a product of the Colombia, Mexico, and Venezuela Country Management Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to encourage research on macroeconomic issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room I4-046, telephone 202-458-5155, fax 202-676-0720, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at mcuevas@worldbank.org. (15 pages)

2826. Potential GDP Growth in Venezuela: A Structural Time Series Approach

Mario A. Cuevas
(April 2002)

Real GDP and oil prices are decomposed into common stochastic trend and cycle processes using structural time series models. Potential real GDP is represented by the level of the trend component of real GDP. The potential rate of growth of real GDP is represented by the stochastic drift element of the trend component. Cuevas finds that there is a strong association at the trend and cycle frequencies between real GDP and the real price of oil. This association is also robust in the presence of key economic policy variables. From 1970–80, when the underlying annual rate of increase of the real price of oil was 12 percent, the underlying annual rate of increase of potential GDP in Venezuela was 2.6 percent. By contrast, from 1981–2000 when the underlying rate of increase of the real price of oil was –5 percent, the underlying growth rate of potential GDP fell 1.5 percent. However, the strength of association between the underlying growth of oil prices and real GDP has fallen considerably since the early 1980s, suggesting that oil cannot be relied on as an engine for future growth in Venezuela.

This paper—a product of the Colombia, Mexico, and Venezuela Country Management Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to encourage research on macroeconomic issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room I4-406, telephone 202-458-5155, fax 202-676-0720, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at mcuevas@worldbank.org. (22 pages)

2827. Learning to Export: Evidence from Moroccan Manufacturing

Marcel Fafchamps, Said El Hamine, and Albert Zeufack
(April 2002)

Fafchamps, Hamine, and Zeufack test two alternative models of learning to export: productivity learning, whereby firms learn to reduce production costs, and market learning, whereby firms learn to design products that appeal to foreign consumers.

Using panel and cross-section data on Moroccan manufacturers, the authors uncover evidence of market learning but little evidence of productivity learning. These findings are consistent with the concentration of Moroccan manufacturing exports in consumer items—the garment, textile, and leather sectors. It is the young firms that export. Most do so immediately after creation. The authors also find that, among exporters, new products are exported very rapidly after production has begun. The share of exported output nevertheless increases for 2–3 years after a new product is introduced. Old firms are unlikely to switch to exports, even in response to changes in macroeconomic incentives. The authors find a positive relationship between exports and productivity and conclude that it is the result of self-selection: it is the more productive firms that move into exports. Policy implications are discussed.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to investigate the microeconomic foundations of export and growth performance using plant-level data. 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 http://econ.worldbank.org. The authors may be contacted at marcel.fafchamps@economics.ox.ac.uk or azeufack@worldbank.org. (44 pages)

2828. Beyond Oaxaca-Blinder: Accounting for Differences in Household Income Distributions across Countries

François Bourguignon, Francisco H. G. Ferreira, and Phillippe G. Leite
(April 2002)

Bourguignon, Ferreira, and Leite develop a microeconometric method to account for differences across distributions of household income. Going beyond the determination of earnings in labor markets, they also estimate statistical models for occupational choice and for conditional distributions of education, fertility, and nonlabor incomes.

The authors import combinations of estimated parameters from these models to simulate counterfactual income distributions. This allows them to decompose differences between functionals of two income distributions (such as inequality or poverty measures) into shares because of differences in the structure of labor market returns (price effects), differences in the occupational structure, and differences in the underlying distribution of assets (endowment effects).

The authors apply the method to the differences between the Brazilian income distribution and those of Mexico and the United States, and find that most of Brazil's excess income inequality is due to underlying inequalities in the distribution of two key endowments: access to education and to sources of nonlabor income, mainly pensions.

This paper is a product of the Research Advisory Staff. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact François Bourguignon, mail stop MC4-402, telephone 202-473-1056, fax 202-522-0304, email address fbourguignon@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The other authors may be contacted at fferreira@econ.puc-rio.br or phil@econ.puc-rio.br. (52 pages)

2829. The Spatial Distribution of Poverty in Vietnam and the Potential for Targeting

Nicholas Minot and Bob Baulch
(April 2002)

Minot and Baulch combine household survey and census data to construct a provincial poverty map of Vietnam and evaluate the accuracy of geographically targeted antipoverty programs. First, they estimate per capita expenditure as a function of selected household and geographic characteristics using the 1998 Vietnam Living Standards Survey. Next, they combine the results with data on the same household characteristics from the 1999 census to estimate the incidence of poverty in each province. The results show that rural poverty is concentrated in 10 provinces in the Northern Uplands, 2 provinces in the Central Highlands, and 2 provinces in the Central Coast.

The authors use Receiver Operating Characteristics curves to evaluate the effectiveness of geographic targeting. The results show that the existing poor communes system excludes large numbers of poor people, but there is potential for sharpening poverty targeting using a small number of easy-to-measure household characteristics.

This paper is a joint product of Macroeconomics and Growth, Development Research Group, and the International Food Policy Research Institute. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Rina Bonfield, room MC3-354, telephone 202-473-1248, fax 202-522-3518, email address abonfield@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at n.minot@cgiar.org or b.baulch@lds.ac.uk. (43 pages)

2830. Labor Market Implications of Switching the Currency Peg in a General Equilibrium Model for Lithuania

Lodovico Pizzati
(April 2002)

On February 2, 2002, Lithuania switched its currency anchor from the dollar to the euro. While pegging to the dollar (since April 1994) has proven successful throughout the transition years, the recent decision to peg to the euro was motivated by the increasing trade relations with European economies. Pizzati does not argue which peg is more appropriate, but he analyzes the implications of changing the exchange rate regime for different sectors and labor groups.

While pegging to the euro entails more stability for the export sector, Lithuania is still dependent on dollar-based imports of primary goods from the Commonwealth of Independent States, more so than other Baltic countries or Central European economies.

Pizzati uses a multisector general equilibrium model to compare the effects of dollar-euro exchange rate movements under these alternative pegs. Overall, simulation results suggest that while a euro-peg will provide more stability to GDP and employment, it will also imply more volatility in prices, suggesting that under the new peg macroeconomic policy should be more concerned with inflationary pressures than before. From a sector-specific perspective, pegging to the euro will provide a more stable demand for unskilled-intensive manufacturing and commercial services. But other sectors, such as agriculture, will still face the same vulnerability to exchange rate movements. This suggests that additional policy measures may be needed to compensate sector-specific divergences.

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 address European Union integration issues in transition economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lodovico Pizzati, room H4-214, telephone 202-473-2259, fax 202-614-0683, email address lpizzati@worldbank.org. (24 pages)

2831. Health Outcomes in Poor Countries and Policy Options: Empirical Findings from Demographic and Health Surveys

Limin Wang
(April 2002)

Empirical studies on health at a disaggregate level—by socioeconomic group or geographic location—can provide useful information for designing poverty-focused interventions. Using Demographic and Health Survey (DHS) data, Wang investigates the determinants of health outcomes in low-income countries both at the national level, and for rural and urban areas separately. DHS data from more than 60 low-income countries between 1990 and 1999 reveal two interesting observations. First is the negative association between the level and inequality in child mortality. Second is the significant gap in child mortality between urban and rural areas, with the rural population having a much slower reduction in mortality compared with the urban population. Given that the poor are mainly concentrated in rural areas, the evidence suggests that health interventions implemented in the past decade may not have been as effective as intended in reaching the poor.

The empirical findings in this study consolidate results from earlier studies and add new evidence. Wang finds that at the national level access to electricity, vaccination in the first year of life, and public health expenditure can significantly reduce child mortality. The electricity effect is shown to be independent of income. In urban areas only access to electricity has a significant health impact, while in rural areas increasing vaccination coverage is important for mortality reduction.

This paper—a product of the Environment Department—is part of a larger effort in the department to better understand health-environment linkages. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Limin Wang, room MC5-208, telephone 202-473-7596, fax 202-522-1735, email address lwang1@worldbank.org. (33 pages)

2832. Poverty and Survival Prospects of Vietnamese Children under Doi Moi

Adam Wagstaff and Nga Nguyet Nguyen
(April 2002)

By international standards, and given its relatively low per capita income, Vietnam has achieved substantial reductions in, and low levels of, infant and under-five mortality. Wagstaff and Nguyen review existing evidence and provide new evidence on whether, under the economic liberalization program known as Doi Moi, this reduction in child mortality has been sustained. They conclude that it has, but that the gains have been concentrated among the better-off. As a result, socioeconomic inequalities in child survival are evident in Vietnam—a change from the early 1990s when none were apparent. The authors develop survival models to find the causes of this differential decline in child mortality, and conclude that a number of factors have been at work, including reductions among the poor (but not among the better-off) in coverage of health services and in women's educational attainment. They argue that if the experience of the late 1990s is a guide to the future, the lack of progress among the poor will jeopardize Vietnam's chances of achieving the international development goals for child mortality.

The authors examine various policy scenarios, including expanding coverage of health services, water and sanitation, and find that such measures, while useful, will have only a limited effect on the mortality of poor children. They find that programs aimed at narrowing the gap between the poor and better-off may have large beneficial effects on the various determinants of child survival.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to investigate the links between health and poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, mail stop MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at awagstaff@worldbank.org or nnga@worldbank.org. (35 pages)

2833. School Choice, Student Performance, and Teacher and School Characteristics: The Chilean Case

Emiliana Vegas
(April 2002)

Vegas explores how schools change in response to increased competition generated by voucher programs in Chile. A unique data set provides information on teacher demographics and labor market characteristics, as well as teachers' perceptions of school management. When teacher data are matched with school-level data on student achievement using a national assessment data set (SIMCE), some teacher and school characteristics affect student performance, but a great deal of unexplained variance among sectors remains important in predicting student outcomes. Teacher education, decentralization of decisionmaking authority, whether the school schedule is strictly enforced, and the extent to which teachers have autonomy in designing teaching plans and implementing projects all appear to affect student outcomes. Interestingly, teacher autonomy has positive effects on student outcomes only when decisionmaking authority is decentralized.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to understand the role of incentives in education. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, mail stop MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at evegas@worldbank.org. (38 pages)

2834. Investor Protection, Ownership, and the Cost of Capital

Charles P. Himmelberg, R. Glenn Hubbard, and Inessa Love
(April 2002)

Himmelberg, Hubbard, and Love combine the agency theory of the firm with risk diversification incentives for insiders. Principal-agent problems between insiders and outsiders force insiders to retain a larger share in their firm than they would under a perfect risk diversification strategy. The authors predict that this higher share of insider ownership and the resulting exposure of insiders to higher idiosyncratic risk will result in underinvestment and higher cost of capital.

Using firm-level data from 38 countries, the authors provide evidence in support of their theoretical model, showing that the premium for bearing idiosyncratic risk varies between zero and six percent and decreases in the level of outside investor protection.

The results of the study imply that policies aimed at strengthening investor protection laws and their enforcement will improve capital allocation and result in higher growth.

This paper—a product of Finance, Development Research Group—is part of a larger effort in the group to study corporate governance and access to finance. Copies of the 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 http://econ.worldbank.org. The authors may be contacted at cph15@columbia.edu or ilove@worldbank.org. (50 pages)

2835. A Decade of Fiscal Transition

Asad Alam and Mark Sundberg
(May 2002)

Transition literature has emphasized stabilization and enterprise restructuring. Both cross-country analyses and country-specific studies have tended to focus on fiscal stabilization and its indicators, highlighting the importance of *quantitative* fiscal adjustment to stabilization outcomes. Less attention has been paid to the *qualitative* dimensions of fiscal adjustment in transition.

Alam and Sundberg take stock of the extent to which fiscal adjustment has occurred during the first decade of transition in both qualitative and quantitative dimensions. They define quality as the extent to which: (1) pro-growth expenditure essential for creating future economic and social assets are maintained; (2) pro-poor expenditure, such as poverty-targeted transfers, necessary to ensure income for the poor and vulnerable are adequately provided; and (3) fiscal risks, impinging on both expenditure and revenue, are managed through transition.

The authors conclude that while the quantitative magnitude of the fiscal adjustment was dramatic, the quality of this adjustment has compromised the social and economic objectives of transition, particularly in the Commonwealth of Independent States (CIS). They draw four main conclusions:

- Investments in public services fell in both absolute and relative terms.
- Reduced spending on government transfers contributed to a sharp increase in income inequality in the CIS.
- Fiscal risks increased during the transition.
- Initial conditions allowed Central European and Baltic countries to maintain higher expenditures, which may have contributed to their faster economic recovery and political support for the reforms.

The authors argue that the challenge today for fiscal policy in these countries is to facilitate the transition—particularly in reallocating resources from large state-owned enterprises to new small and medium-size firms, and providing priority public services and targeted transfers to assist those adversely affected by transition and reverse the deterioration in social outcomes. The interplay between fiscal policies and institutional arrangements is increasingly important as transition economies embark on their second decade of reforms. In particular, incentives embedded in the institutional arrangements for fiscal management needs to be strengthened so that policies, resources, and outcomes can be better aligned, and the fiscal adjustment is consistent with qualitative considerations.

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 economic transition in former centrally planned economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Alison Panton, room H4-156, telephone 202-458-5433, fax 202-522-2751, email address apanton@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at aalam@worldbank.org or msundberg @worldbank.org. (27 pages)

2836. Ethnic Minority Development in Vietnam: A Socioeconomic Perspective

Bob Baulch, Truong Thi Kim Chuyen, Dominique Haughton, and Jonathan Haughton
(May 2002)

Baulch, Chuyen, Haughton, and Haughton examine the latest quantitative evidence on disparities in living standards between and among different ethnic groups in Vietnam. Using data from the 1998 Vietnam Living Standards Survey and 1999 Census, they show that Kinh and Hoa ("majority") households have substantially higher living standards than "minority" households from Vietnam's other 52 ethnic groups. Subdividing the population into five broad categories, the authors find that while the Kinh, Hoa, Khmer, and Northern Highland minorities have benefited from economic growth in the 1990s, the growth of Central Highland minorities has stagnated. Disaggregating further, they find that the same ethnic groups whose living standards have risen fastest are those that have the highest school enrollment rates, are most likely to intermarry with Kinh partners, and are the least likely to practice a religion. The authors then estimate and decompose a set of expenditure regressions which show that even if minority households had the same endowments as Kinh households, this would close no more than a third of the gap in per capita expenditures. While some ethnic minorities seem to be doing well with a strategy of assimilating (both culturally and economically) with the Kinh-Hoa majority, other groups are attempting to integrate economically while retaining distinct cultural identities. A third group comprising the Central Highland minorities, including the Hmong, is largely being left behind by the growth process.

Such diversity in the socioeconomic development experiences of the different ethnic minorities indicates the need for similar diversity in the policy interventions that are designed to assist them.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to study household welfare and poverty reduction in Vietnam. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-301, telephone 202-473-7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Jonathan Haughton may be contacted at jhaughto@beaconhill.org. (25 pages)

2837. Reform, Growth, and Poverty in Vietnam

David Dollar
(May 2002)

Vietnam grew rapidly in the 1990s, and yet by many measures it has poor economic institutions. Dollar seeks to explain this apparent anomaly. Between the 1980s and 1990s Vietnam carried out significant economic reforms, notably stabilization, the introduction of positive real interest rates, trade liberalization, and initial property rights reform in agriculture. Relating these changes to the empirical growth literature, the author finds that Vietnam's growth acceleration is about what would be predicted. Conditional convergence also suggests that the country's high growth rate will decelerate unless further reforms are taken.

Dollar then looks at the level of institutional and policy development in Vietnam compared with other emerging market economies. While Vietnam's policies have improved, they did so starting from a very low base. So, it can be simultaneously true that Vietnam's policies have improved a lot and yet are rather poor in comparative perspective. A comparison of governance indicators, financial sector issues, and the infrastructure of international integration reveals serious institutional weaknesses in Vietnam that need to be addressed if a high growth rate is to be sustained.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to study household welfare and poverty reduction in Vietnam. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Emily Khine, room MC3-301, telephone 202-473--7471, fax 202-522-3518, email address kkhine@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at ddollar @worldbank.org. (33 pages)

2838. Economic Mobility in Vietnam in the 1990s

Paul Glewwe and Phong Nguyen
(May 2002)

Vietnam's high economic growth in the 1990s led to sharp reductions in poverty, yet over the same time period inequality increased. This increased inequality may be less worrisome if Vietnamese households experience a high degree of income mobility over time. This is because high mobility implies that the *long-run* distribution of income is more equally distributed than the *short-run* distribution, since some individuals or households are poor in some years, while others are poor in other years.

Glewwe and Nguyen examine economic mobility in Vietnam using recent household survey panel data. The problem of measurement error in the income variable, which exaggerates the degree of economic mobility, is directly addressed. Correcting for measurement error dramatically changes the results. At least one half of measured mobility is because of measurement error.

This paper—a product of Macroeconomics and Growth, Development Research Group—is part of a larger effort in the group to study household welfare and poverty reduction in Vietnam. 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 http://econ.worldbank.org. Paul Glewwe may be contacted at pglewwe @dept.agecon.umn.edu. (26 pages)

2839. Marketing Externalities and Market Development

M. Shahe Emran and Forhad Shilpi
(May 2002)

Emran and Shilpi use survey data from Bangladesh to present empirical evidence on externalities at household level sales decisions resulting from increasing returns to marketing. The increasing returns that arise from thick market effects and fixed costs imply that a trader is able to offer higher prices to producers if the marketed surplus is higher in villages. The semi-parametric estimates identify highly nonlinear own and cross commodity externality effects in the sale of farm households. The vegetable markets in villages with low marketable surplus seem to be trapped in segmented local market equilibrium. The analysis points to the coordination failure in farm sale decisions as a plausible explanation for the lack of development of rural markets even after market liberalization policies are implemented.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to understand the process of development of rural markets. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Forhad Shilpi, room MC3-536, telephone 202-458-7476, fax 202-522-1151, email address fshilpi@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Shahe Emran may be contacted at emran@stanford.edu. (31 pages)

2840. Public Spending and Outcomes: Does Governance Matter?

Andrew Sunil Rajkumar and Vinaya Swaroop
(May 2002)

Rajkumar and Swaroop examine the role of governance—measured by level of corruption and quality of bureaucracy—and ask how it affects the relationship between public spending and outcomes. Their main innovation is to see if differences in efficacy of public spending can be explained by quality of governance. The authors find that public health spending lowers child and infant mortality rates in countries with good governance. The results also indicate that as countries improve their governance, public spending on primary education becomes effective in increasing primary education attainment. These findings have important implications for enhancing the development effectiveness of public spending. The lessons are particularly relevant for developing countries, where public spending on education and health is relatively low, and the state of governance is often poor.

This paper—a product of Public Services, Development Research Group—is part of a larger effort in the group to better understand issues relating to effective service delivery. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Hedy Sladovich, room MC3-311, telephone 202-473-7698, fax 202-522-1154, email address hsladovich@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Vinaya Swaroop may be contacted at vswaroop@worldbank.org. (28 pages)

2841. Contractual Savings in Countries with a Small Financial Sector

Gregorio Impavido, Alberto R. Musalem, and Dimitri Vittas
(May 2002)

Countries with small financial systems are generally small economies with a reduced dimension of institutional relationships, a greater concentration of wealth, and a relatively less independent civil service. These characteristics facilitate concentration of functions and, more generally, weak governance. Only small economies with a relatively high level of per capita income, minimum core of sound banks and insurance companies, sound and credible macroeconomic policies, and open capital accounts can benefit from the development of contractual savings. This can increase the options to obtain sound coverage against contingencies, increase the supply of long term savings, promote financial deepening, and improve financial risk management.

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 http://econ.worldbank.org. The authors may be contacted at gimpavido@worldbank.org, amusalem@worldbank.org, or dvittas@worldbank.org. (30 pages)

2842. Financial Sector Inefficiencies and the Debt Laffer Curve

Pierre-Richard Agénor and Joshua Aizenman
(May 2002)

Agénor and Aizenman analyze the implications of inefficient financial intermediation for debt management using a model in which firms rely on bank credit to finance their working capital needs and lenders face high state verification and enforcement costs of loan contracts. Their analysis shows that lower expected productivity, higher contract enforcement and verification costs, or higher volatility of productivity shocks may shift the economy to the wrong side of the debt Laffer curve, with potentially sizable output and welfare losses. The main implication of this analysis is that debt relief may generate little welfare gains unless it is accompanied by reforms aimed at reducing financial sector inefficiencies.

This paper—a product of the Economic Policy and Poverty Reduction Division, World Bank Institute—is part of a larger effort in the institute to understand the macroeconomic effects of financial sector inefficiencies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Maria Gosiengfiao, room J4-282, telephone 202-473-3363, fax 202-676-9810, email address mgosiengfiao@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. Pierre-Richard Agénor may be contacted at pagenor@worldbank.org. (23 pages)

2843. A Practical Guide to Managing Systemic Financial Crises: A Review of Approaches Taken in Indonesia, the Republic of Korea, and Thailand

David Scott
(May 2002)

Scott examines experiences in Indonesia, the Republic of Korea, and Thailand in confronting systemic financial crises during the 1990s. He draws on the knowledge and experience of World Bank staff who managed the Bank's financial and technical assistance to those countries. In reviewing the principal actions taken by the governments to resolve the crises, the author describes key challenges that governments face in tackling crises, defines basic guidelines and principles for responding to those challenges, and proposes steps to improve the ability of governments to deal with crises when they do occur, as well as to mitigate the risk of crises in the first place. Scott addresses matters such as the provision of liquidity, institutional arrangements for crisis resolution, use of public funds, diagnosis of problems, resolution, recapitalization, restructuring of banks, privatization of banks, restructuring of troubled debt, and use of asset management companies. He goes on to develop the conceptual underpinnings for two fundamental improvements in crisis management practices, one to develop an explicit, comprehensive crisis resolution strategy, and the second to link the provision of support to banks explicitly to the actual outcomes of troubled debt restructuring. A common theme in both is to maximize the impact of public funds used in crisis resolution. Finally the author identifies steps that governments can take to mitigate the risk of crisis and be better prepared to deal with shocks should they occur, including the use of contingency planning in the context of liquidity management and intervention in weak banks.

This paper—a product of the Financial Sector Group, East Asia and Pacific Region—is part of a larger effort in the region to disseminate lessons learned during the Asian crises. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Lynn Yeargin, room MC8-158, telephone 202-458-1553, fax 202-522-3094, email address lyeargin @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at dscott@worldbank.org. (96 pages)

2844. Money Demand in Venezuela: Multiple Cycle Extraction in a Cointegration Framework

Mario A. Cuevas
(May 2002)

Money demand in Venezuela is modeled using structural time series and error correction approaches, for the period 1993.1 to 2001.4. The preferred model features seasonal cointegration and was estimated following a structural time series approach. There are similarities in the long-run behavior of money demand associated with the structural time series and error correction approaches. Estimated short-run dynamics are more fragile, with the structural time series modeling approach providing richer insights into the adjustment dynamics of money demand. A cycle with a three-year period has been found to be common to money demand, real GDP, and opportunity cost variables. This cycle is robust to changes in model specification, including choice of opportunity cost variables. Higher frequency cycles are also found to exist, but are more sensitive to model specification. Results are also presented for a combined approach that takes advantage of error correction models, as well as insights into short-run dynamics afforded by the structural time series modeling approach.

This paper—a product of the Colombia, Mexico, and Venezuela Country Management Unit, Latin America and the Caribbean Region—is part of a larger effort in the region to encourage research on macroeconomic issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Michael Geller, room I4-406, telephone 202-458-5155, fax 202-676-0720, email address mgeller@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at mcuevas@worldbank.org. (60 pages)

2845. The Spatial Division of Labor in Nepal

Marcel Fafchamps and Forhad Shilpi
(May 2002)

Fafchamps and Shilpi examine how economic activity and market participation are distributed across space. Applying a nonparametric von Thünen model to Nepalese data, the authors uncover a strong spatial division of labor. Nonfarm employment is concentrated in and around cities, while agricultural wage employment dominates villages located further away. Vegetables are produced near urban centers. Paddy and commercial crops are more important at intermediate distances. Isolated villages revert to self-subsistence. The findings of the study are consistent with the von Thünen model of concentric specialization, corrected to account for city size. Spatial division of labor is closely related to factor endowments and household characteristics, especially at the local level.

This paper—a product of Rural Development, Development Research Group—is part of a larger effort in the group to understand the importance of spatial factors in rural development. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Forhad Shilpi, room MC3-536, telephone 202-458-7476, fax 202-522-1151, email address fshilpi @worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at marcel.fafchamps @economics.ox.ac.uk or fshilpi @worldbank.org. (62 pages)

2846. Is India's Economic Growth Leaving the Poor Behind?

Gaurav Datt and Martin Ravallion
(May 2002)

There has been much debate about how much India's poor have shared in the economic growth unleashed by economic reforms in the 1990s. Datt and Ravallion argue that India has probably maintained its 1980s rate of poverty reduction in the 1990s. However, there is considerable diversity in performance across states. This holds some important clues for understanding why economic growth has not done more for India's poor.

India's economic growth in the 1990s has not been occurring in the states where it would have the most impact on poverty nationally. If not for the sectoral and geographic imbalance of growth, the national rate of growth would have generated a rate of poverty reduction that was double India's historical trend rate. States with relatively low levels of initial rural development and human capital development were not well-suited to reduce poverty in response to economic growth.

The study's results are consistent with the view that achieving higher aggregate economic growth is only one element of an effective strategy for poverty reduction in India. The sectoral and geographic composition of growth is also important, as is the need to redress existing inequalities in human resource development and between rural and urban area

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the department to better understand the relationship between economic growth and poverty. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Catalina Cunanan, room MC3-542, telephone 202-473-2301, fax 202-522-1151, email address ccunanan@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at gdatt @worldbank.org or mravallion @worldbank.org. (29 pages)

2847. The Nature and Dynamics of Poverty Determinants in Burkina Faso in the 1990s

Hippolyte Fofack
(May 2002)

Fofack investigates the determinants and dynamics of poverty during the five-year growth period that followed the 1994 CFA franc devaluation in Burkina Faso. Results show that the nature and dynamics of poverty determinants are influenced by the spatial location of households and that the post-devaluation growth period did not significantly alter the pattern of poverty determinants. The most significant determinants of poverty over the growth period include the burden of age dependency, human and physical assets, household amenities, and spatial location. Though consistently significant at the national level, the direction of association between these determinants and welfare depends on their nature. While the burden of age dependency is consistently negatively associated with welfare, asset ownership is positively associated. The probability of being poor declines with increasing share of household assets and increases with the burden of age dependency. There are some variations at the regional level, however, shown by the difference in the scope of significance of these determinants. While the ratio of age dependency remains the most significant determinant of rural poverty, its explanatory power decreases considerably in urban areas where its marginal effect on the probability of being poor is relatively low over the two reference periods, despite the significance of the probit coefficient and the relatively low asymptotic standard error.

This paper—a product of Macroeconomics 3, Africa Technical Families—is part of a larger effort in the region to better understand the determinants of growth and poverty in Sub-Saharan Africa. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paula White, room J7-270, telephone 202-458-1131, fax 202-473-8466, email address pwhite2@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at hfofack @worldbank.org. (26 pages)

2848. Administrative Barriers to Foreign Investment in Developing Countries

Jacques Morisset and Olivier Lumenga Neso
(May 2002)

Recent international experience has shown that excessively complex administrative procedures required to establish and operate a business discourage inflows of foreign direct investment. Morisset and Lumenga Neso present a new database on the administrative costs faced by private investors in 32 developing countries. The database is much more comprehensive than the existing sources, as it contains not only information on general entry procedures, such as business and tax registration, but also captures regulation on land access, site development, import procedures, and inspections. The data include measures on the number of procedures, direct monetary costs, and time.

The cost of administrative procedures vary significantly across countries. The most important barriers appear to be the delays associated with securing land access and obtaining building permits, which in several countries take more than two years. Countries that impose excessive administrative costs on entry tend to be equally intrusive in firm operations, thereby weakening the argument that barriers to entry are a substitute for the government's unwillingness or inability to regulate enterprise operations. The level of administrative costs is positively correlated with corruption incidence and exhibits a negative correlation with the quality of governance, degree of openness, and public wages. These correlations suggest that administrative reforms need to be incorporated into the broader agenda for reforms such as trade and financial liberalization, the fight against corruption, and public sector administration.

This paper—a product of the Foreign Investment Advisory Service—is part of a larger effort to study the role of administrative barriers in the investment decision of private firms. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Monte Feghali, room I9-110, telephone 202-473-6177, fax 202-522-3262, email address mfeghali @ifc.org. Policy Research Working Papers are also posted on the Web at http:// econ.worldbank.org. The authors may be contacted at jmorisset@ifc.org or lumenganeso@hec.unige.ch. (21 pages)

2849. Pooling, Savings, and Prevention Mitigating the Risk of Old Age Poverty in Chile

Truman G. Packard
(May 2002)

Using data collected in a survey on risk and social insurance in Chile, Packard finds that workers who entered the labor market after the pension reform of 1981 have a greater "contribution density" than those who contributed to the previous social security system. Further, the expectation of care from children and the amount spent on their education significantly lowers the likelihood of contribution to the pension system. Workers who have met the contributory requirements to qualify for the minimum pension guaranteed by the government are significantly less likely to continue making contributions. The likelihood of contributions beyond the eligibility threshold being lowered further, the greater the market rental value of respondents' homes. Furthermore, individuals with a greater tolerance for risk contribute, suggesting that there are retirement security investments in Chile that are perceived as relatively less risky than saving in the reformed pension system. The results indicate that housing could be one such investment.

This paper—a product of the Human Development Sector Unit, Latin America and the Caribbean Region—is part of a regional study on social security reform. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Truman Packard, room I7-151, telephone 202-547-5841, fax 202-614-0832, email address tpackard@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. (74 pages)

2850. Determinants of Commercial Bank Performance in Transition: An Application of Data Envelopment Analysis

David A. Grigorian and Vlad Manole
(June 2002)

Banking sectors in transition economies have experienced major transformations throughout the 1990s. While some countries have been successful in eliminating underlying distortions and restructuring their financial sectors, in some cases financial sectors remain underdeveloped and the rates of financial intermediation continue to be quite low.

Grigorian and Manole estimate indicators of commercial bank efficiency by applying a version of Data Envelopment Analysis (DEA) to bank-level data from a wide range of transition countries. They further extend the analysis by explaining the differences in efficiency between financial institutions and countries by a variety of macroeconomic, prudential, and institutional variables. In addition to stressing the importance of some bank-specific variables, the censored Tobit analysis suggests that:

- Foreign ownership with controlling power and enterprise restructuring enhance commercial bank efficiency.
- The effects of prudential tightening on the efficiency of banks vary across different prudential norms.
- Consolidation is likely to improve efficiency of banking operations.

Overall, the results confirm the usefulness of DEA for transition-related applications and may shed light on the optimal architecture of a banking system.

This paper—a product of the Private and Financial Sector Development Unit, Europe and Central Asia Region—is part of a larger effort in the region to disseminate the results of research on transition issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Sylvia Torres, room H6-216, telephone 202-473-9012, fax 202-522-0005, email address storres@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at dgrigorian@imf.org or manole@wueconc.wustl.edu. (36 pages)

2851. Economic Development and the World Trade Organization After Doha

Bernard Hoekman
(June 2002)

Hoekman analyzes what actions could be taken in the context of the World Trade Organization's Doha negotiations to assist countries in reaping benefits from deeper trade integration. He discusses the policy agenda that confronts many developing countries and identifies a number of focal points that could be used both as targets and as benchmarks to increase the likelihood that WTO negotiations will support development. To achieve these targets, Hoekman proposes a number of negotiating modalities for both goods and services-related market access issues, as well as rule-making in regulatory areas. Throughout the analysis, the author refers to the work of J. Michael Finger, whose numerous writings in this area have not only greatly influenced the thinking of policymakers and researchers on the interaction between trade policy, economic development, and the GATT/WTO trading system, but also provides a model for how to pursue effective policy research.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to analyze the development aspects of WTO rules. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at bhoekman@worldbank.org. (33 pages)

2852. Regional Agreements and Trade in Services: Policy Issues

Aaditya Mattoo and Carsten Fink
(June 2002)

Every major regional trade agreement now has a services dimension. Is trade in services so different that there is need to modify the conclusions on preferential agreements pertaining to goods reached so far? Mattoo and Fink first examine the implications of unilateral policy choices in a particular services market. They then explore the economics of international cooperation and identify the circumstances in which a country is more likely to benefit from cooperation in a regional rather than multilateral forum.

This paper—a product of Trade, Development Research Group—is part of a larger effort in the group to assess the implications of liberalizing trade in services. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Paulina Flewitt, room MC3-333, telephone 202-473-2724, fax 202-522-1159, email address pflewitt@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at amattoo@worldbank.org or cfink@worldbank.org. (32 pages)

2853. Private Interhousehold Transfers in Vietnam in the Early and Late 1990s

Donald Cox
(June 2002)

Cox uses data from the 1992–93 and 1997–98 Vietnam Living Standards Surveys (VLSS) to describe patterns of money transfers between households. Rapid economic growth during the 1990s did little to diminish the importance of private transfers in Vietnam. Private transfers are large and widespread in both surveys, and are much larger than public transfers. Private transfers appear to function like means-tested public transfers, flowing from better-off to worse-off households and providing old age support in retirement. Panel evidence suggests some hysteresis in private transfer patterns, but many households also changed from recipients to givers and vice versa between surveys. Changes in private transfers appear responsive to changes in household pre-transfer income, demographic changes, and life-course events. Transfer inflows rise upon retirement and widowhood, for example, and are positively associated with increases in health expenditures. It also appears that private transfer inflows increased for households affected by Typhoon Linda, which devastated Vietnam's southernmost provinces in late 1997.

This paper is a product of Macroeconomics and Growth, Development Research Group. The study was funded by the Bank's Research Support Budget under the research project "Economic Growth and Household Welfare: Policy Lessons from Vietnam." Copies of this 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 http://econ.worldbank.org. The author may be contacted at donald.cox@bc.edu. (42 pages)

2854. Rich *and* Powerful? Subjective Power and Welfare in Russia

Michael Lokshin and Martin Ravallion
(June 2002)

Does "empowerment" come hand-in-hand with higher economic welfare? In theory, higher income is likely to raise both power and welfare, but heterogeneity in other characteristics and household formation can either strengthen or weaken the relationship. Survey data on Russian adults indicate that higher individual and household incomes raise both self-rated power and welfare. The individual income effect is primarily direct, rather than through higher household income. There are diminishing returns to income, though income inequality emerges as only a minor factor reducing either aggregate power or welfare. At given income, the identified covariates have strikingly similar effects on power and welfare. There are some notable differences between men and women in perceived power.

This paper—a product of the Poverty Team, Development Research Group—is part of a larger effort in the group to explore broader measures of well-being. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Catalina Cunanan, room MC3-542, telephone 202-473-2301, fax 202-522-1151, email address ccunanan@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at mlokshin@worldbank.org or mravallion@worldbank.org. (45 pages)

2855. Financial Crises, Financial Dependence, and Industry Growth

Luc Laeven, Daniela Klingebiel, and Randy Kroszner
(June 2002)

Laeven, Klingebiel, and Kroszner investigate the link between financial crises and industry growth. They analyze data from 19 industrial and developing countries that have experienced financial crises during the past 30 years to investigate how financial crises affect sectors dependent on external sources of finance. Specifically, the authors examine whether the impact of a financial crisis on externally dependent sectors varies with the depth of the financial system. They find that sectors highly dependent on external finance tend to experience a greater contraction of value added during a crisis in deeper financial systems than in countries with shallower financial systems. They hypothesize that the deepening of the financial system allows sectors dependent on external finance to obtain relatively more external funding in normal periods, so a crisis in such countries would have a disproportionately negative effect on externally dependent sectors. In contrast, since externally dependent firms tend to obtain relatively less external financing in shallower financial systems (and hence have relatively lower growth rates in such countries during normal times), a crisis in such countries has less of a disproportionately negative effect on the growth of externally dependent sectors.

This paper—a product of the Financial Sector Strategy and Policy Department—is part of a larger effort in the department to study the link between financial development and economic growth. 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 202-473-3722, fax 202-522-2031, email address hvo1@worldbank.org. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The authors may be contacted at llaeven@worldbank.org, dklingebiel@worldbank.org, or randy.kroszner@gsb.uchicago.edu. (26 pages)

2856. Banking Policy and Macroeconomic Stability: An Exploration

Gerard Caprio, Jr. and Patrick Honohan
(June 2002)

Whether and when does banking serve to stabilize the economy? Caprio and Honohan view the banking system as a filter through which foreign and domestic shocks feed through to the domestic economy. The filter can dampen or amplify the shocks through various credit market channels, including credit growth, import of foreign capital, and possibly interest rates. The question is whether the prudential quality of banking, as proxied by measures of regulatory quality and openness to foreign banking, amplify or dampen these shocks.

The authors find that many of the regulatory characteristics that have been found to deepen a financial system and make it more robust to crises—notably those which empower the private sector—also appear to *reduce* the sector's ability to provide short-term insulation to the macroeconomy. It is as if prudent bankers are reluctant to absorb short-term risks that, if neglected, might cause solvency and growth problems in the longer run. Forbearance might dampen short-term volatility, but at the expense of the longer run health of the banking sector and the economy. One way to avoid this apparent tradeoff is evident: banking systems which have a higher share of foreign-owned banks, a feature already associated with financial deepening and lowered risk of crisis, also seem to score well in terms of short-term macroeconomic insulation.

This paper—a joint product of Finance, Development Research Group, and the Financial Sector Strategy and Policy Department—is part of a larger effort in the

Bank to analyze bank regulation and supervision. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contactAgnes 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 http://econ.worldbank.org. The authors may be contacted at gcaprio@worldbank. org or phonohan@worldbank.org. (37 pages)