Pathways Out of Poverty
Private Firms and Economic Mobility in Developing Countries

Edited by
Gary S. Fields
Guy Pfeffermann

Kluwer Academic Publishers
Pathways Out of Poverty

Private Firms and Economic Mobility in Developing Countries
Pathways Out of Poverty

Private Firms and Economic Mobility in Developing Countries

Edited by
Gary S. Fields and Guy Pfeffermann
Library of Congress Cataloging-in-Publication

Pathways out of poverty: private firms and economic mobility in developing countries / edited by Gary S. Fields and Guy Pfefferman.

p. cm.
Includes bibliographical references and index.
HC59.7.P357 2003
339.4'091724-dc21 2003(1040133

© 2003 The International Bank for Reconstruction and Development / The World Bank

All rights reserved.

The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the Board of Executive Directors of the World Bank or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work.

The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Photo on front cover © 2002 Richard Lord.

Rights and Permissions

The material in this work is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. The World Bank encourages dissemination of its work and will normally grant permission promptly.

For permission to photocopy or reprint any part of this work, please send a request with complete information to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA; telephone 978-750-8400, fax 978-750-4470, www.copyright.com.

All other queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax 202-522-2422, e-mail pubrights@worldbank.org.

Printed on acid-free paper.

Printed in the United States of America.
We wish to express our gratitude to our colleagues, without whose generous support this book would not have seen the light of day.

*Gary S. Fields and Guy Pfeffermann*
Contents

List of Contributors ix
Preface: Peter Weick xv
Foreword: Nicholas Stern xvii

PART I. THE ROLE OF THE PRIVATE SECTOR: STUDIES AND EVIDENCE
1. Reducing Poverty: The Overall Framework 3
   GUY PFEFFERMANN AND GARY S. FIELDS
2. Escaping from Poverty: Household Income Dynamics in
   Indonesia, South Africa, Spain, and Venezuela 13
   GARY S. FIELDS, PAUL L. CICHELLO, SAMUEL FREIJE, MARTA MENÉNDEZ,
   AND DAVID NEWHOUSE
3. Long-term Economic Mobility and the Private Sector in
   Developing Countries: New Evidence 35
   GARY S. FIELDS AND WALTER S. BAGG
4. Informal Self-Employment: Poverty Trap or Decent Alternative? 65
   WILLIAM F. MALONEY

PART II. THE PRIVATE SECTOR AT WORK: CASES FROM AROUND THE WORLD
5. Generating Upward Mobility: The Case of Korea and
   Private Sector Development 85
   SE-IL PARK
6. The Central Role of Entrepreneurs in Transition Economies 105
   JOHN MCMIILLAN AND CHRISTOPHER WOODRUFF
7. Opportunities off the Farm as a Springboard Out of Rural Poverty:
   Five Decades of Development in an Indian Village 123
   PETER LANJOUW AND NICHOLAS STERN
8. The Problem of African Entrepreneurial Development 155
   TYLER BIGGS AND MANJU SHAH
PART III. THE BUSINESS ENVIRONMENT

   GEETA BATRA, DANIFI KAUFMANN, AND ANDREW H. W. STONE

10. Obstacles Facing Smaller Business in Developing Countries 215
    BEATRICE WEDER

PART IV. PUBLIC POLICY AND PUBLIC ATTITUDES

11. Bringing SMEs into Global Markets 229
    KRIS HALLBERG AND YANHO KONISHI

12. The Role of Government in Enhancing Opportunity for the Poor: Economic Mobility, Public Attitudes, and Public Policy 247
    CAROL GRAHAM

Index 283
Contributors

Walter S. Bagg graduated from Cornell University with honors in 2002 with a B.S. in Industrial and Labor Relations. He is now teaching English in Korea and learning about long-term economic mobility first-hand.

Geeta Batra is senior private sector development specialist in the Foreign Investment Advisory Service of the World Bank Private Sector Advisory Services Group. Her main areas of work include research, technical assistance, and policy analysis on projects related to private sector skills upgrading, competitiveness, and assessments of the business environment and investment climate in developing countries. She has a Ph.D. in economics from Pennsylvania State University, where her research focused on international trade, development, and econometrics.

Tyler Biggs created and managed the Regional Program for Enterprise Development, a large firm-level research and technical assistance program in the Africa Region of the World Bank. He has held senior positions at the Rockefeller and Ford Foundations, the Harvard Institute for International Development at Harvard University, and the World Bank. He has taught economics at the University of California, Berkeley, and Harvard University and has been a visiting professor at universities in Kenya, Nigeria, and Pakistan. He has a Ph.D. in economics from the University of California, Berkeley. Dr. Biggs is currently retired from the World Bank and is an independent consultant living in McLean, Virginia.

Paul L. Cichello is an assistant professor in the Economics and Human Resources Department at Xavier University. His research interests include labor market dynamics, educational investment, and their impact on household well-being, primarily in an African context. He holds a Ph.D. in economics from Cornell University and a B.A. from Boston College.

Gary S. Fields is professor in the Department of Labor Economics and chair of the Department of International and Comparative Labor at Cornell University. His research interests lie in the areas of labor markets and income distribution in comparative perspective and labor economics for managers. His latest book, Distribution and Development:
A New Look at the Developing World, was co-published by the MIT Press and the Russell Sage Foundation in 2001. Professor Fields has been a visiting scholar at the London School of Economics, DELTA in Paris, the University of Warwick, Oxford University, the University of Nairobi, and the Universidad de Los Andes in Colombia. He has also been an advisor to various national and international agencies, including the World Bank, Inter-American Development Bank, Asian Development Bank, African Economic Research Consortium, United Nations Development Program, ILO, UNICEF, and OECD, as well as the governments of the United States, South Africa, Korea, and Bolivia. He received his B.A., M.A., and Ph.D. degrees in economics from the University of Michigan.

Samuel Freije is aggregate professor at Instituto de Estudios Superiores de Administracion, IESA in Caracas, Venezuela. His current research interests lie in the areas of labor markets in developing countries and personnel economics. He has been a visiting scholar at the Universidad de Las Americas in Puebla, Mexico, and a consultant to the Inter-American Development Bank, IFC, and the United Nations Development Program. He holds an M.Sc. in economics from the University of London and a Ph.D. in labor economics from Cornell University.

Carol Graham is vice president and director of the Governance Program at the Brookings Institution. She is also a visiting professor in the department of economics at Johns Hopkins University. She has served as special advisor to the vice president of the Inter-American Development Bank, as a visiting fellow in the Office of the Chief Economist of the World Bank, and as a consultant to the International Monetary Fund and the Harvard Institute for International Development. She is the author of several books and articles on market reform, institutional change, and poverty. Her most recent book, published by Brookings and co-authored with Stefano Pettinato, is Happiness and Hardship: Opportunity and Insecurity in New Market Economies. She has an A.B. from Princeton University, an M.A. from Johns Hopkins, and a D.Phil from Oxford University.

Kris Hallberg is a lead economist in the Operations Evaluation Department of the World Bank. She was a key contributor to the recent guidelines on donor interventions supporting business development services for small and medium enterprises published by the Committee of Donor Agencies for Small Enterprise Development, as well as to SME and private sector development strategies in the World Bank. Her experience in the World Bank has focused on trade and industrial policy and financial sector development, mainly in Latin America; she was the Bank's resident representative in Colombia in the early 1990s. She holds a Ph.D. in economics from the University of Wisconsin-Madison.

Daniel Kaufmann is the director for global governance and for Latin America Capacity Building and Learning at the World Bank Institute. He frequently advises state leaders, senior officials, and civil society on strategies to improve governance and address corruption. Previously he served as senior manager for governance, regulation and finance, WBI; lead economist in the Development Economics Group; and World Bank chief of mission in Ukraine. He was a visiting scholar at Harvard University in the mid-1990s and has published extensively on issues of economic development, privatization,
governance, the unofficial economy, industrial and trade restructuring, corruption, transparency, and urban and labor economics. He received his Ph.D. and master's degree in economics from Harvard University and a B.Sc. degree in economics and statistics from the Hebrew University of Jerusalem.

Yasuo Konishi is the managing director of Global Development Solutions, LLC., a Reston, Virginia–based management consulting firm that specializes in assisting enterprises in developing countries in creating export market opportunities, including forward and backward linkages and supply chains. In addition to advising private sector companies, Mr. Konishi has been a senior technical advisor to the United Nations and has extensive consulting experience with the World Bank, EBRD, the Asian Development Bank, the United Nations, and USAID.

Peter Lanjouw, a Dutch national, is lead economist in the Development Economics Research Group of the World Bank, and fellow of the Amsterdam Institute of International Development, Amsterdam. A former professor of economics at the Free University of Amsterdam, Netherlands, he has also taught in the Masters in Development Economics program at the University of Namur, Belgium. His research has focused on various aspects of poverty and inequality measurement, as well as on rural development issues. He earned his Ph.D. in economics at the London School of Economics.

William F. Maloney is lead economist in the Office of the Chief Economist for Latin America and the Caribbean of the World Bank. Prior to joining the World Bank, he was a professor of economics at the University of Illinois at Urbana Champaign. His research has focused on trade, open economy macroeconomics, and most recently labor economics. He received his Ph.D. from the University of California, Berkeley, and did graduate work at the Universidad de Los Andes in Bogota, Colombia.

John McMillan, a New Zealander, is the Jonathan B. Lovelace Professor of Economics in the Graduate School of Business, Stanford University. He previously taught at the University of Western Ontario, Canada, and the University of California, San Diego. He has written on economic theory and applied microeconomics; his current research is on the reform of planned economies and on the design of market institutions. His recent book *Reinventing the Bazaar: A Natural History of Markets* explores what markets can and cannot do and what it takes for them to work effectively.

Marta Menéndez is a Ph.D. candidate for the European Doctoral Program in Quantitative Economics at DELTA, in Paris. Her research interests are in development and labor economics. She has been a visiting scholar at Cornell University and PUC, in Rio de Janeiro, and has worked as a consultant for the World Bank. She holds an M.A. in economics from Université Catholique de Louvain, Belgium.

David Newhouse is staff economist at the Federal Trade Commission. He holds a Ph.D. in economics from Cornell University and a B.A. from Oberlin College.

Se-Il Park is a professor of law and economics at the School of International and Area Studies, Seoul National University. He has served as president of the Korean Law and Economics Association and the Korean Labor Economics Association. A former
senior fellow at the Korean Development Institute, Dr. Park was professor of law and economics at the College of Law, Seoul National University. From 1995 to 1998, he served as senior secretary to the president of the Republic of Korea for policy planning and social development. He was a visiting fellow at the Brookings Institution from 1998 to 1999. Dr. Park has a B.A. in law from Seoul National University and an M.A. and Ph.D. in economics from Cornell University. In 1987, he received a Chung-Nam Award from the Korean Economics Association for distinguished publications in economics.

**Guy Pfeffermann**: is chief economist of the International Finance Corporation, a part of the World Bank Group. Before joining the IFC in 1988, he worked at the World Bank, where he was chief economist for Latin America and the Caribbean from 1979 to 1987. He is a French national and has degrees from the universities of Strasbourg, Paris, and Oxford. A number of his recent speeches and publications can be found on IFC’s Economics web site at [http://www.ifc.org](http://www.ifc.org).

**Manju Shah** is a consultant in the World Bank Regional Program in Enterprise Development. She has a Ph.D. in economics from the University of Maryland, with a specialty in labor economics and industrial organization. An Indian national, she is the co-author of various research papers on entrepreneurship and firm performance in Sub-Saharan Africa.

**Nicholas H. Stern** is the chief economist and senior vice president, development economics, of the World Bank. The former chief economist and special counselor to the president of the European Bank for Reconstruction and Development, he was appointed a chair (subsequently the Sir John Hicks Chair in Economics) at the London School of Economics in 1986 and returned to the LSE as school professor at the beginning of 2000. A U.K. national, he has taught and conducted research at many places, including Oxford University, where he received his doctorate, Warwick University, the Massachusetts Institute of Technology, Ecole Polytechnique in Paris, the Indian Statistical Institute in Bangalore and Delhi, and the People’s University of China in Beijing. His research and publications have focused on economic development and growth, economic theory, tax reform, public policy and the role of the state, economies in transition, and crime and criminal statistics. For more than 25 years, he has been studying the economy and society of Palanpur, a village in northern India, where he lived for eight months in 1974–75. His most recent book is *Economic Development in Palanpur over Five Decades* (co-edited with Peter Lanjouw).

**Andrew J. W. Stone** is a senior private sector development specialist in the Investment Climate Unit of the World Bank’s Private Sector Advisory Services Department. He is currently program manager for Investment Climate Assessments, a new instrument designed to provide a standard and comparable basis for assessing private enterprise operation and growth. He has managed a research project on business-government consultative mechanisms and managed the World Business Environment Survey, carried out in 81 countries. The author of several articles, World Bank discussion papers, and Web-based resources on private sector development,
business transactions costs, and empirical evaluation of business constraints, he has coordinated and taught training courses for World Bank staff on strategic approaches to fostering private sector competitiveness and market competition.

Beatrice Weder is a professor of economics at the University of Mainz and holds the chair for international macroeconomics. Previously, she was an associate professor at the University of Basel. From 1994 to 1997, she worked as an economist for the International Monetary Fund and from 1997 to 1998 in the research department of the World Bank. She has held visiting positions at Harvard University and the United Nations University in Tokyo. She has served as a consultant for various international organizations, including IFC, the World Bank, the IMF, the United Nations University, and the OECD Development Center. She is on the scientific advisory board of the Hamburg Institute of International Economics and on the Swiss Council of Macroeconomic Advisors. She has written several books and published widely in academic journals. Her current research focuses on international capital flows, international banking, financial crises, monetary policy, growth, and development.

Christopher M. Woodruff is an associate professor at the Graduate School of International Relations and Pacific Studies, University of California at San Diego. He has directed surveys of small and medium enterprises in Mexico, Vietnam, and Central and Eastern Europe and is the author of many articles on issues related to entrepreneurship in developing and transition economies. His research has focused on the institutional environment needed to support investment and the enforcement of contracts among small and medium enterprises. He received his Ph.D. in economics from the University of Texas, Austin; his M.A. in economics from the University of California at Los Angeles; and his B.A. in economics from the University of Chicago.
Preface

Forty years ago in a small village in north India, an agricultural laborer had to work a whole day to earn enough to buy 5 pounds of wheat. Today, there are many more mouths to feed in his village, yet he earns five times as much.

In Korea between 1962 and 2000, per capita income rose from $87 to $9,678. In countries as diverse as Venezuela, South Africa, Indonesia, and Spain in the 1990s, during a period of intensifying globalization and vast economic transformation, families that started out poor experienced the most favorable gains in income.

Much has been written about poverty, but facts like these speak for themselves. They emerge from the pages of this book, which shows the power of private enterprise to lift people out of poverty.

This volume combines theory, hard economic analysis, and case studies. It presents much new empirical evidence and zeroes in on the role of private firms, large and small, in reducing poverty—a topic largely neglected in the economics literature. It builds on an earlier IFC study, Paths Out of Poverty (2000), and focuses on actual, concrete mechanisms for escaping poverty. The creation of high-paying, high-productivity jobs; the generation of new businesses; ways to link small firms to larger ones; these are some of the poverty-reducing mechanisms explored in the book. Constraints to private sector development are explored, too, particularly of start-up firms that are key to the economic health of developing economies and transition countries. The volume also focuses on strategies that governments can pursue to enhance the capacity of poor people to move up the income ladder.

Paths Out of Poverty made the case that private enterprise can be a significant source of upward mobility and poverty reduction, generating employment and tax revenue, increasing investment, and encouraging innovation, openness to ideas, and empowerment. Pathways Out of Poverty amplifies those themes and fleshes them out. It provides powerful evidence from around the world of the power of the private sector to reach down to the poor and improve their lives.

Peter Woicke
Executive Vice President, International Finance Corporation
Managing Director, World Bank
Foreword

The history of economic development tells us that rapid falls in income poverty have been associated with strong periods of economic growth. We have also learned that sustained economic growth depends on private investment. The great majority of investment is domestic, and much of it comes from the entrepreneurship of small and medium-sized firms or farms. Thus, the business environment, or the investment climate, influencing these decisions is crucial to the whole process of growth and poverty reduction.

Before joining the World Bank, I worked for six years as chief economist of the European Bank for Reconstruction and Development. In that capacity, I had a special vantage point from which to examine the former centrally planned economies as they struggled to create a market economy and achieve sustainable economic growth. This experience strengthened my conviction that building a competitive investment climate is an essential part of a successful development strategy.

We should not, however, think only in terms of economic growth when we try to understand poverty reduction. It is vital that we work to empower poor people to participate in the process. And poverty occurs in many more dimensions than income. Hence, we must also recognize a second pillar in the fight for poverty reduction: empowerment. Empowering poor people so that they can participate in economic growth requires investments in health, in education, and in social protection as well as building institutions that enable them to participate in decisions that shape their lives. These two pillars—the investment climate and empowerment—are summarized in *A Strategy for Development*, a World Bank publication.

There are strong interrelationships between the two pillars. Just as healthier, better-educated persons can take advantage of employment opportunities, gainful employment is itself empowering. As Amartya Sen emphasizes, freedom can be realized only in practice when a person enjoys a certain control over his or her material circumstances. Only then can self-respect and social inclusion follow. In that sense, having a productive economic activity is itself a basis for empowerment. It follows that a favorable investment climate—one that is conducive to the creation and growth of enterprises, hence of jobs—contributes in a basic way to empowerment.
This new book, *Pathways Out of Poverty*, considers the role of private firms in economic mobility. Private firms can be large or small. In many developing countries, small agricultural family "firms" employ the largest numbers of people, and these are private. Indeed, after the Chinese government let family farms make their own economic decisions in the late 1970s and early 1980s, the world witnessed the largest-scale exit from poverty in human history. Vietnam’s experience in the past decade has been similar in this respect.

Likewise, the informal sector is an entrepreneurial breeding ground. Private firms generate the overwhelming majority of jobs in the developing world and in transition countries. This does not mean that the role of the state in fostering economic progress is unimportant, quite the contrary. Indeed, fresh worldwide evidence examined in this book on the investment climates faced by private companies demonstrates loud and clear that good public governance is a *sine qua non* for sustained development. Where the state provides a good institutional framework, supplies or promotes infrastructure, supports education and health, and acts as a facilitator, private firms respond by generating useful goods and services, by creating jobs, and by transferring technology.

The volume spans a wide geographic spectrum and many diverse situations ranging from a small village in India to the family backgrounds of African entrepreneurs. The overview chapter summarizes each of the contributions in this rich volume, which provides an innovative contribution to modern development literature.

Nicholas Stern

*Senior Vice President and Chief Economist*

*The World Bank*
Part I. The Role of the Private Sector:
Studies and Evidence
How private firms contribute to economic mobility and poverty reduction and what governments can do to enhance their contribution is the theme of this book. We look first at the positive role the private sector plays in economic development, a role that has received less emphasis than that of other players. We then focus on the labor market and how various mechanisms in the economy interact to affect conditions for people as workers and as consumers. The volume examines the links among the business environment, private sector development, economic growth, poverty reduction, and economic mobility.

Until recently, development economists tended to assume a role for private enterprises in reducing poverty, without articulating it explicitly. Then the new institutional economics literature, with its emphasis on transaction costs, began to focus on the environment in which private businesses operate in various countries—the "investment climate." Given subsequent surveys and research reports, including some published in this volume, we are now in a much better position than even five years ago to identify areas of the investment climate in which improvements should yield substantial growth benefits.

PEOPLE MOVING OUT OF POVERTY

Our starting point is the worldwide drop in the number of very poor people, the first such drop in almost two centuries (see Figure 1-1).

Because world population has kept on increasing, the drop in the share of poor people is even sharper: thirty years ago, about 17 percent of the world's population
were living in extreme poverty; today fewer than 7 percent are (see Sala-i-Martin 2002). Of course, some countries and some regions did better than others. Perhaps most encouraging, in the world's most populous countries, China and India, the number of extremely poor persons declined substantially. Only in the former Soviet Union did the number of people living in extreme poverty increase. The question arises, How do people move out of poverty?

WHAT PRIVATE FIRMS CONTRIBUTE TO DEVELOPMENT

In developing countries, private enterprise is far and away the largest source of employment and investment and a significant source of government revenue. In addition to these tangible contributions, private enterprise is an important source of less tangible, but critically important, factors such as openness to ideas, innovation, and opportunity. While state-owned firms can in theory deliver the same benefits to society, in practice they seldom do so, owing to multiple and often conflicting objectives set by government and delayed or inflexible responses to economic change and market conditions. In contrast, private firms operating in competitive conditions obtain "real-time" feedback from the markets, which is a condition of long-term dynamism.

Employment

More and better jobs offer the best (often the only) opportunity for upward mobility in the lifetimes of poor people and their children. Upward mobility is key to securing the ultimate objects of development: freedom from hunger, long life, health, greater choice, and generally more human fulfillment.
Poor people themselves certainly seem to think so. In interviews with Rio de Janeiro favela and low-income housing complexes, 69 percent said that finding a job was the most important thing in life (see Figure 1-2).

Data on job creation by private firms are few and far between. Table 1-1 shows that the vast majority of jobs are created by private firms and not by government, including state-owned enterprises.

In addition to job creation, upgrading both jobs and skills is an important pathway out of poverty. Successful long-run development brings with it massive occupational shifts, in the course of which poverty, however defined, is reduced. Upgrading within sectors of activity (from subsistence agriculture to market agriculture, for example) or

---

**Figure 1-2. Factors Most Important for a Successful Life.**


**Table 1-1 Private Firms as a Source of Job Creation, Selected Developing Countries, 1987–98**

<table>
<thead>
<tr>
<th>Country</th>
<th>Job creation (thousands)</th>
<th>Ratio of private job creation to public job creation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
<td>Public</td>
</tr>
<tr>
<td>Mexico</td>
<td>12,431.0</td>
<td>143.0</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>238.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Turkey</td>
<td>1,490.0</td>
<td>91.0</td>
</tr>
<tr>
<td>Kenya</td>
<td>173.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Guatemala</td>
<td>47.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Bolivia</td>
<td>181.0</td>
<td>18.0</td>
</tr>
<tr>
<td>Uruguay</td>
<td>127.0</td>
<td>27.0</td>
</tr>
<tr>
<td>Gabon</td>
<td>4.7</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Source: IMF, Recent Economic Developments (various years, for each country).
shifts between sectors (for instance, from agriculture to manufacturing) are key to achieving development. Upgrading jobs and skills is central to these processes, and private firms are the major source of demand for higher levels of skills and jobs.

**Tax Revenues**

There would be no sustainable and reliable base for funding programs that benefit poor people, such as health, education, social safety nets, and agricultural research, without a foundation of private economic activities. Formal sector enterprises—small, medium, and large—generate the taxes that finance the bulk of government expenditure critical to any poverty reduction effort.

In developing countries, private firms are a major source of tax revenue that supports social services and other publicly backed assistance to poor people. While in some of the poorest countries, foreign aid plays an important role, it cannot be regarded as a substitute for a country's own efforts. It is too small in most countries and is not reliable.

**Investment**

Private investment has a major role to play in economic growth. Recent studies have shown that it is more closely associated with growth than is public investment. It also tends to embody newer technologies and more capital than public investment. That is the conclusion of a study of 50 developing countries from 1970 to 1998 that examines the relationship between private and public investment, growth rates, and income levels (see Bouton and Sumlinski 2000).

The study found that the association between private investment and growth was even more pronounced during the 1990s, a period when private investment was accelerating in many countries, while public investment was declining as a result of privatization and tighter budget constraints.

**Openness to Ideas**

The sources of long-term economic growth are often intangible. No single factor such as investment or education can "ignite" development. Much depends, rather, on the pace at which poor societies can adapt knowledge that already exists in the more economically advanced parts of the world and put it to use. The challenge is how to bring about conditions in which knowledge accumulated over decades, and indeed centuries, can be usefully absorbed and effectively utilized in poorer countries.

Successful developing countries are open to foreign ideas; they nurture "receptors" capable of filtering out those strands of knowledge that can take root in their local environment. Throughout the world, private enterprises act as knowledge receptors. Where competitive conditions prevail, leading enterprises will constantly seek out information that has practical uses locally. To remain competitive, other firms, in turn, will emulate their behavior. In this process, executives and employees upgrade their human capital, their productivity, and their incomes.

The role of private firms in absorbing knowledge and putting it to use is especially important in the process of technology generation and diffusion. Private companies
play a major part in research and development. In the course of development, the share of gross domestic product spent on research and development increases, and private companies undertake most of it. Private businesses also bring innovations to the marketplace in the form of products, services, and processes, thus broadening choices for poor people as well as more affluent consumers.

Whether, and to what extent, private firms have the incentives to make these contributions to development depends in large part on the business environment, including, significantly, the degree of competition that firms are facing. Monopolies, oligopolies, high protection against competing imports, and government subsidies tend to reduce the contribution that private firms are making to development. Competition is the most effective way to avoid concentration of power, oligarchy, corruption, and collusion between firms and government.

Until the mid-1990s, when Political Credibility and Economic Development was published, little was known across developing countries about their investment climates. Until then, researchers and policymakers had to rely on “expert surveys,” which tended to focus mainly on political risk or on the environment for foreign firms. The authors of Political Credibility and Economic Development applied a questionnaire to local as well as foreign firms in 28 developing countries, with a primary focus on the predictability of the legal and regulatory framework and its enforcement.

A more ambitious Worldwide Business Environment Survey was conducted as part of the World Bank’s 1997 World Development Report, The State in a Changing World. That survey encompassed 69 countries and 3,600 firms and focused on the predictability of rule making, crimes against persons and property, reliability of judicial enforcement, and the degree of corruption. Lack of institutional credibility was found to translate into less investment as well as lower returns on development projects.

A second Worldwide Business Environment Survey was carried out during 1999 and 2000, covering about 10,000 firms in 80 countries and West Bank and Gaza (see http://www.worldbank.org/privatesector/ic/ic jca_resources.htm). Chapters 9 and 10 of this book are based on that survey, the most comprehensive of its kind.

THE BOOK’S STRUCTURE AND MAIN MESSAGES

The book consists of four parts. The first focuses on economic mobility and some of the main factors that encourage the upward movement of people. Chapter 2 presents sets of surveys about households in Indonesia, South Africa, Spain, and Venezuela. These sets are unique because they make it possible to trace individual households over time. The surveys were conducted during the 1990s, a decade of intensifying globalization, and are therefore of particular interest. The data indicate that poor households participated at least proportionately in the economic growth that has taken place. In all four countries, initially poor households experienced more favorable income changes, in relation to their initial incomes, than their richer counterparts. In none of the countries does the evidence support statistically significant conditional divergence, whereby the rich get relatively richer and the poor get relatively poorer. Changes in labor earnings are more important than changes in all other sources of household income combined. Transitions out of or into poverty are most strongly
influenced by changes in the head of household's employment. A switch to public sector employment by the household head substantially increases the likelihood of escaping from poverty but accounts for relatively few such escapes. Most households that escaped poverty were headed by private sector workers.

Chapter 3 also focuses on four economies—Taiwan (China), Indonesia, Costa Rica, and Brazil—and considers the longer-term relationship between economic growth (or the absence thereof) and the evolution of labor markets. The authors challenge the view that in today's globalized world, economic growth no longer leads to poverty reduction. The results cast doubt on two claims: that a large proportion of workers are being left out of economic growth today and that workers participated in economic growth before but are no longer able to do so now. In the four economies, workers benefited during growth periods. The economic growth that occurred was transmitted through the labor market with a movement to higher-paying jobs, substantial increases in real income, a more educated labor force, decreases in unemployment, and lower poverty. The chapter builds a new database and provides fresh, detailed evidence on long-term economic mobility.

Chapter 4 focuses mainly on Latin America, where the informal sector is very prevalent and is generally believed to offer much worse employment conditions than do formal, officially registered firms. A variety of evidence is pulled together in support of the view that “informal” entrepreneurship can be a viable, and often desirable, alternative to formal sector salaried work. The evidence includes surveys with entrepreneurs, field studies, and cross-country data. Contrary to widely accepted perceptions, given a worker's education and skills, the difference between what he or she might earn in a formal enterprise and what he or she may earn in the informal sector is far from clear-cut. What emerges, rather, is that formal and informal activities tend to command different packages consisting of wages, benefits, independence, and entrepreneurial potential. Formal sector labor protections are not free; workers often pay for them in salary deductions and also in lower equilibrium wages. Should the value of benefits to the worker fall below this “implicit tax,” he or she may wish to shift to the informal sector, where earnings are entirely monetary. The chapter concludes that the informal sector can be viewed as an entrepreneurial breeding ground, which many people join by choice, not by necessity.

Part II of the book deals with case studies from different parts of the world. The long-run development of Korea is analyzed in chapter 5. The author stresses the importance of high-productivity, high-paying jobs as a means to achieve both growth and equity (“shared growth”) and of the right mix of private enterprise and government intervention in encouraging development and lifting people out of poverty into the middle class. The chapter documents how Korea achieved an enviable measure of success in generating shared growth. One of the key factors is the mutually supportive long-term interplay between productivity improvements and the educational upgrading of the labor force. The chapter also stresses the importance of industrial relations in the development process, as well as the role of small and medium enterprises (SMEs).

Chapter 6 is concerned with formerly Communist countries and with China and documents the crucial role that private entrepreneurs are playing in determining how
successful the reform process is. New firms have been formed at a striking rate in some of the transition countries and, as in other economies, improving welfare by creating jobs and supplying consumer goods. In economies moving away from central control, new private enterprises are also playing a crucial role in constraining the market power of the state-owned firms and building political momentum for reform. We summarize evidence on the relative role of entrepreneurs and the state in economic reform. Different reforming countries have experienced very different degrees of economic and social success. The rate of new enterprise creation is a particularly powerful predictor of success or failure. The chapter considers entry, entrepreneurial strategies, the welfare effects of private enterprises, and the need for state support, especially in enforcing contracts and creating conditions under which private firms can obtain financing.

In chapter 7, the focus shifts to Palanpur, a tiny Indian village in the densely populated gangetic plain of western Uttar Pradesh—perhaps the only one in the world for which detailed economic data have been collected for nearly half a century. Through this lens, the authors try to gather insights about the mechanisms by which India’s long-term economic progress may translate into changing living conditions in rural communities. Progress has been slow, always at the mercy of weather conditions; yet over the long haul, living standards have improved markedly. As noted in the preface, the real purchasing power of even the poorest agricultural laborers doubled between the late 1950s and the mid-1980s. Improvements in agricultural productivity are key to such progress. Yet improved productivity might have been offset by rapid population increase had it not been for increasing demand for labor outside farming. Responding to this demand by private firms in nearby towns, an increasing number of people took to commuting. While this did not always translate into higher incomes for the poorest segments of the village population, it did relieve population pressure on the land. Indeed, a growing relative agricultural labor scarcity pushed up rural wages, and this played a fundamental role in raising living standards of Palanpur’s poor in the long run.

Some of the problems of Sub-Saharan African entrepreneurship are considered in chapter 8. The analysis draws on heretofore unpublished survey data of African enterprises. The focus is on the personal characteristics of entrepreneurs and their educational and family backgrounds. Such endowments influence powerfully the types of opportunities that they can exploit. The survey shows very clearly that ethnic African entrepreneurs are much less likely to have had prior experience in their industry or higher education or to have strong business networks, foreign connections, or significant financial assets, compared to minority entrepreneurs of European, Asian, and Middle Eastern descent. As a consequence, in many cases, African entrepreneurs are constrained to enter manufacturing by way of informal apprenticeships and start-ups of micro and small firms. These firms also tend to remain smaller and less productive. Attention by policymakers needs to be paid particularly to improving the availability of technical, vocational, and enterprise-based training, as well as increased access to working capital.

Part III considers the importance of good business environments (or “investment climates”) to successful economic and social development. The rich materials of the
Worldwide Business Environment Survey mentioned earlier in this chapter serve to make the case. In chapter 9 the “voices of the firms” are heard. Executives of 10,000 companies, most of them small local firms, evaluated the obstacles they face. The survey also gathered “objective” data such as sales and investment volumes and so made it possible to assess the impact of changes in the investment climate on firm performance. Survey results are also presented and analyzed by regions.

While the findings of this overview chapter are complex, in simple terms the analysis confirms the clear importance of a few key constraints for firm growth and investment: financing problems, high taxes, corruption, policy uncertainty, and insufficient business consultation. The chapter also explores the factors associated with firms operating informally, finding informality positively associated with macroeconomic constraints (such as inflation and exchange rate uncertainty), regulatory and tax constraints, corruption, and weak protection of intellectual property rights. The chapter also finds that while most firms suffer from poor business environments, in some countries powerful firms “capture the state” and shape the investment climate to their benefit, thereby harming most other enterprises.

Chapter 10 also draws on the business environment survey and asks whether small, medium, and large firms have different sensitivities to various state imperfections. A number of obstacles to doing business are being examined such as corruption, policy uncertainty, access to financing, taxes, and regulations. For most obstacles, firm size and how strongly firms are being affected by obstacles are negatively associated. There are, however, some exceptions, and each country’s circumstances need to be examined individually. The finding of a bias against small firms supports continued targeted policy efforts, but the author cautions against neglecting reforms that benefit the investment climate for all firms.

This leads naturally to the book’s last part, which is concerned with public policy and public attitudes. Chapter 11 presents a promising approach to helping small and medium enterprises compete. Smaller enterprises tend to be less export oriented than larger firms. This raises concerns about their future in an increasingly globalized world economy. Governments have been trying to help smaller firms for decades but have had little impact on enterprise competitiveness. Governments and donors are therefore searching for new approaches. The authors suggest such a new approach, using links between companies to build the capabilities of small and medium enterprises and increase their participation in local and global markets. This strategy has the potential to overcome some of the main impediments facing these small firms and positioning them for greater growth and job creation. Unlike traditional support programs, this approach is market based. The chapter includes the description of concrete cases where this approach is being tested.

Chapter 12 turns to broad strategies that governments can pursue to enhance the capacity of poor people to move up the economic ladder. Three sets of policies are capable of reducing insecurity and enhancing the opportunities of the poor as well as the middle class. The first of these is more broadly available social services, including education. The second is removing market and policy distortions that block the productive potential of poor people. The third is better safety nets and other forms of
social insurance. How much governments are able to level the playing field or tilt it in favor of poor people will depend to a large extent on public attitudes toward who should benefit from government efforts, on the balance between formal and informal sectors, on fiscal and administrative capacity, and on the political lie of the land. The chapter shows how attitudes about individual prospects for upward mobility—as well as individual experiences with upward or downward mobility—both influence and are influenced by the policy context and in turn help determine the actual behavior and effort level of individuals in particular societies.

REFERENCES


NOTES

1 This section draws on Paths Out of Poverty: The Role of Private Enterprise in Developing Countries, IFC 2000.

2 The European Roundtable of Industrialists (http://euroweb.be) did publish periodic surveys in cooperation with the United Nations and the International Chamber of Commerce, but these surveys focused only on perceptions by multinational corporation executives.
2. Escaping from Poverty: Household Income Dynamics in Indonesia, South Africa, Spain, and Venezuela

GARY S. FIELDS, PAUL L. CICHELLO, SAMUEL FREIJE, MARTA MENÉNDEZ, AND DAVID NEWHOUSE*

Opponents of free trade argue that in today's global economy, unfettered access to foreign capital, technology, and goods primarily benefits a well-connected and highly skilled elite, to the exclusion of the poor, voiceless majority. Are the rich getting richer at the expense of the poorer?

Are those who started out poor in fact getting poorer? And who gets ahead more: those who started out richer or those who started out poorer? These are some of the questions that this study addresses. It draws on data from four very different economies—Indonesia, South Africa, Spain, and Venezuela—and follows households over time during the period of intensifying globalization in the 1990s. The data reveal major patterns—some expected and some unexpected—that indicate that the intense economic activity of the 1990s did reach down to the poor in far-flung spots around the world. Poor households participated at least proportionately in the economic growth that has taken place.

This study presents the main results of a larger, more technical report (Fields and others 2001) and subsequent work (Fields and others 2002) that analyzes income mobility in Indonesia, South Africa, Spain, and Venezuela. These economies were selected on the basis of the availability of panel data with which to analyze household income dynamics in the 1990s. By following households over time, we are able to investigate how households that were poor initially fared economically, relative to their richer counterparts. We can learn more about how and why households exit—and enter—poverty.

To gauge income mobility, this study centers on the change in household per capita income over time, using two measures. Our first measure—a conventional one—gauges
income changes in currency units. Our second measure, the change in log currency units, approximates the percentage changes in income. In this way, it arguably better reflects the reality of a poor household, in which a given change in income—whether an increase or a decrease—counts more than it does in a richer one.

To gauge a household's economic well-being in the base year, this study uses both reported income and predicted income (in currency units and in logs). The reason for using predicted income in addition to or in place of reported income is that household incomes are notoriously difficult to measure in survey data. In our particular context, any errors in the measure of income in the initial year will lead to overstatements in the income gains of the poor relative to the rich. We predicted income using time-invariant characteristics, base-year characteristics, assets, household expenditure per capita, and local average income.²

To get a first look at the movement of income over time, we divided households into five equal-size groups, or quintiles, for each country. The poorest are the first 20 percent of households (quintile 1). The next poorest 20 percent are in quintile 2, and so on, up to the richest 20 percent in quintile 5. The movement from quintile to quintile is displayed in quintile transition matrices. Rows indicate the initial income quintile of the household, while columns indicate the final quintile of the household. Table 2-1 presents quintile transition matrices for Indonesia, South Africa, Spain, and Venezuela for different spans in the 1993–98 period.

Substantial short-term economic mobility took place in all four of these economics. Although there was movement in all four countries, Spain and Venezuela exhibited less quintile mobility than Indonesia and South Africa. This result can partly-if not primarily-be attributed to the shorter time interval between surveys in the first two countries (one year in each) than in the latter countries (four and four and one-half years, respectively). As has been found in other countries, those who started in the highest income quintile are more likely to remain there than any other pairing between base and final quintile. That is, the highest values appear in the 5,5 cells. The richest stay rich.

Why exactly do different types of households experience gains or losses in their per capita income (PCI)? Our study investigated five questions. First, did the rich, in fact, benefit more than the poor? That is, did households that were initially advantaged gain

### Table 2-1 Quintile Transition Matrices

**Indonesia: Per Capita Income Transition Matrix**

<table>
<thead>
<tr>
<th>Years/Initial quintile</th>
<th>Final quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1993/1997</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>41.2</td>
</tr>
<tr>
<td>2</td>
<td>27.9</td>
</tr>
<tr>
<td>3</td>
<td>15.7</td>
</tr>
<tr>
<td>4</td>
<td>10.2</td>
</tr>
<tr>
<td>5</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Table 2-1  (continued)

South Africa: Per Capita Income Transition Matrix
(percent of sample in 1998 log PCI quintile, conditional on 1993 log PCI quintile)

<table>
<thead>
<tr>
<th>Years/initial quintile</th>
<th>Final quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1993/1998</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>38.2</td>
</tr>
<tr>
<td>2</td>
<td>26.9</td>
</tr>
<tr>
<td>3</td>
<td>18.4</td>
</tr>
<tr>
<td>4</td>
<td>12.8</td>
</tr>
<tr>
<td>5</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Spain: Per Capita Income Transition Matrix
(percent of sample in 1996 log PCI quintile, conditional on 1995 log PCI quintile)

<table>
<thead>
<tr>
<th>Years/initial quintile</th>
<th>Final quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1995/1996</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>65.4</td>
</tr>
<tr>
<td>2</td>
<td>19.7</td>
</tr>
<tr>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>5</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Venezuela: Per Capita Income Transition Matrix
(percent of sample in 1998 log PCI quintile, conditional on 1997 log PCI quintile)

<table>
<thead>
<tr>
<th>Years/initial quintile</th>
<th>Final quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1997/1998</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>49.5</td>
</tr>
<tr>
<td>2</td>
<td>25.2</td>
</tr>
<tr>
<td>3</td>
<td>17.6</td>
</tr>
<tr>
<td>4</td>
<td>10.3</td>
</tr>
<tr>
<td>5</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Note: Numbers in bold reflect no movement from initial quintile to final quintile.

Source: Authors calculations, based on the following household surveys: (Indonesia) the Indonesian Family Life Survey for 1993 and 1997; (South Africa) KwaZulu Natal Income Dynamics Study for 1993 and 1998; (Spain) the Spanish Household Panel Survey (Encuesta Continua de Presupuestos Familiares) from 1995 and 1996; and (Venezuela) the Venezuelan Sample Household Survey (Encuesta de Hogares por Muestreo) from 1997 and 1998.

more or less, on average, than households that were initially poor? Second, did households with higher incomes than would have been predicted, given their observed characteristics, build upon their advantage or fall back to their expected income? For two initially similar households, did the one that started in a better position, thanks to good luck or unobserved skills, extend its advantage? Third, which household characteristics are most important in accounting for the different changes in households' per capita income? The study examined a variety of household characteristics, including initial income, job changes, demographic composition of the household, and
education levels of the head. Fourth, in explaining change in per capita income, what is the relative importance of changes in income as compared to changes in household size, and how important are changes in each source of income? Finally, which household characteristics are associated with the ability of initially poor households to escape from destitution?

**HOUSEHOLD INCOME DYNAMICS AND BASE-YEAR INCOME: INITIAL RESULTS**

Who gets ahead more: those who started out richer or those who started out poorer? Does poverty persist? Do households escaping poverty offset those falling into it over time? Do household per capita incomes converge toward the country's average income or diverge away from it?

Our first test uses linear regression. Let \( Y_1 \) denote a measure of a household's base-year economic position (such as per capita income or consumption). Similarly, \( Y_2 \) represents final-year economic position. Let \( \Delta Y \) denote the difference between reported \( Y_2 \) and reported \( Y_1 \). A number of previous studies have regressed \( \Delta Y \) on \( Y_1 \) (or \( Y_2 \) on \( Y_1 \)) with no other variables present. If \( \Delta Y \) is found to rise as \( Y_1 \) rises, the base-year rich are getting ahead by more. This is called "unconditional divergence." Households are moving further apart relative to where they started. On the other hand, if it is the base-year poor who are getting ahead by more, \( \Delta Y \) will fall as \( Y_1 \) rises. This is called "unconditional convergence." In this case, the gap between high income and low income households is narrowing. A third possibility is "independence": that is, the base-year poor and base-year rich experience the same changes in income. The gap remains, but rich and poor alike are better off—or worse off—by about the same amount.

The coefficients for regressions of this type for our four countries are presented in Table 2-2. Four measures of economic position and its change are used: reported log income per capita, predicted log income per capita, reported income per capita, and predicted income per capita.

By two measures, the research indicates that it is the poor who are getting ahead by more than the rich. The first row of Table 2-2 demonstrates unconditional convergence of reported per capita income, measured in log terms, in all four countries. The second row demonstrates that reported incomes, measured in monetary terms, also converge toward the country's mean per capita income. That is, when looking at reported incomes, those with initially low incomes gain more rupiah, rand, pesetas, or bolivares than do higher-income households.

The results of the regression relating change in income to predicted base-year income are reported in the bottom two rows of Table 2-2. The changes in estimated log PCI are significantly negatively related to base log PCI: that is, in all four countries, the higher is a household's estimated base-year log PCI, the lower is its estimated change in log PCI. However, no such uniformity is found for changes in currency units. Although the same convergent pattern is found for South Africa and Venezuela, no significant relationship is found for Spain, and a significant positive (that is, divergent) effect is found for Indonesia.
To test the robustness of the preceding conclusions, we performed two other kinds of tests. One is to use other measures of base-year economic position (Tables 2-3a and 2-3b). Non-parametric regressions were also performed to shed light on the earlier results based on linear regressions. The Indonesia results are displayed in Figures 2-1a–2-1d. These alternative measures of base-year economic position (fitted initial income quintile, initial consumption quintile, initial asset quintile, and initial housing rent) can be thought of as alternative indicators of longer-term economic well-being. Using these indicators, the analysis reinforced all the previous results. With one exception, a pronounced negative or an independent relationship appeared between base-year economic position, on the one hand, and subsequent income change, on the other. The one exception is that longer-term well-being is associated with a higher change in monetary terms in Indonesia. The second test involves simulating the effect of possible measurement error in income on our results. This analysis found that the unconditional convergence results appear to be robust in South Africa and Venezuela, but that unconditional divergence may well have taken place in Spain (Fields and others 2002).

In sum, initially poor households appeared to do better than initially rich households in terms of percentage gains. In currency terms, changes appear mixed across countries, with strong evidence of larger income gains for lower-income households in South Africa and Venezuela and some evidence of larger gains for higher income households in Indonesia and Spain.
Table 2-3a  Mobility Profiles by Initial Position: Mean Changes in Log PCI

<table>
<thead>
<tr>
<th></th>
<th>Indonesia</th>
<th>South Africa</th>
<th>Spain</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. dev.</td>
<td>Mean</td>
<td>Std. dev.</td>
</tr>
<tr>
<td>Total population</td>
<td>0.37</td>
<td>0.02</td>
<td>0.15</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>-0.043</td>
<td>0.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY INITIAL INCOME QUINTILE</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>1.47</td>
<td>0.07</td>
<td>1.10</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>1.150</td>
<td>0.118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>0.42</td>
<td>0.05</td>
<td>0.23</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>-0.150</td>
<td>0.060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>0.16</td>
<td>0.04</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>-0.461</td>
<td>0.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>-0.00</td>
<td>0.03</td>
<td>-0.19</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>-0.335</td>
<td>0.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>-0.20</td>
<td>0.03</td>
<td>-0.46</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>-0.408</td>
<td>0.027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY FITTED INITIAL INCOME QUINTILE</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>0.67</td>
<td>0.06</td>
<td>0.62</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>0.065</td>
<td>0.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>0.38</td>
<td>0.04</td>
<td>0.18</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>-0.188</td>
<td>0.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>0.32</td>
<td>0.04</td>
<td>0.22</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>-0.021</td>
<td>0.078</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>0.23</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>-0.030</td>
<td>0.059</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>0.12</td>
<td>0.04</td>
<td>-0.23</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>-0.041</td>
<td>0.063</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY INITIAL CONSUMPTION QUINTILE</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>0.54</td>
<td>0.05</td>
<td>0.47</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>0.36</td>
<td>0.05</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>0.32</td>
<td>0.04</td>
<td>0.20</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>0.37</td>
<td>0.04</td>
<td>0.14</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>0.25</td>
<td>0.04</td>
<td>-0.23</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY INITIAL ASSET QUINTILE</td>
<td>*</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>0.54</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>0.36</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>0.32</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>0.37</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>0.25</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BY INITIAL HOUSING RENT QUINTILE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>0.06</td>
<td>0.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>0.07</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>-0.01</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>0.05</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>0.14</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Denotes statistical significance at the 5% level using an F-test on category variables.
Source: Authors' calculations.

HOUSEHOLD INCOME DYNAMICS AND BASE-YEAR INCOME: MULTIVARIATE ANALYSIS

The research reported in the previous section supports the finding that households tended to move closer to their country's overall mean income in South Africa and Venezuela. That finding leads to another question: do households that start ahead of households with similar observable characteristics move further ahead or do they tend to fall toward the level of their peers? If the first pattern is found, the results would
Table 2-3b Mobility Profiles by Initial Position: Mean Changes in Per Capita Income

<table>
<thead>
<tr>
<th></th>
<th>Indonesia</th>
<th>South Africa</th>
<th>Spain</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. dev.</td>
<td>Mean</td>
<td>Std. dev.</td>
</tr>
<tr>
<td>Total population</td>
<td>17.8</td>
<td>1.3</td>
<td>46.5</td>
<td>13.7</td>
</tr>
<tr>
<td>By Initial Income Quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2nd quintile</td>
<td>26.7</td>
<td>1.7</td>
<td>140.88</td>
<td>23.00</td>
</tr>
<tr>
<td>3rd quintile</td>
<td>22.6</td>
<td>1.8</td>
<td>73.57</td>
<td>15.75</td>
</tr>
<tr>
<td>4th quintile</td>
<td>21.9</td>
<td>1.8</td>
<td>85.26</td>
<td>21.26</td>
</tr>
<tr>
<td>Richest quintile</td>
<td>18.1</td>
<td>2.2</td>
<td>33.81</td>
<td>26.29</td>
</tr>
<tr>
<td>By Fitted Initial Income Quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>13.8</td>
<td>1.1</td>
<td>69.74</td>
<td>14.86</td>
</tr>
<tr>
<td>2nd quintile</td>
<td>15.3</td>
<td>1.6</td>
<td>50.2</td>
<td>15.82</td>
</tr>
<tr>
<td>3rd quintile</td>
<td>14.4</td>
<td>2.0</td>
<td>104.28</td>
<td>26.56</td>
</tr>
<tr>
<td>4th quintile</td>
<td>23.0</td>
<td>2.4</td>
<td>35.01</td>
<td>24.59</td>
</tr>
<tr>
<td>Richest quintile</td>
<td>26.0</td>
<td>4.4</td>
<td>-21.74</td>
<td>30.93</td>
</tr>
<tr>
<td>By Initial Consumption Quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>10.4</td>
<td>1.2</td>
<td>66.68</td>
<td>15.26</td>
</tr>
<tr>
<td>2nd quintile</td>
<td>16.9</td>
<td>1.7</td>
<td>40.65</td>
<td>15.24</td>
</tr>
<tr>
<td>3rd quintile</td>
<td>16.6</td>
<td>1.8</td>
<td>74.01</td>
<td>21.32</td>
</tr>
<tr>
<td>4th quintile</td>
<td>21.3</td>
<td>2.2</td>
<td>90.92</td>
<td>28.33</td>
</tr>
<tr>
<td>Richest quintile</td>
<td>26.2</td>
<td>4.2</td>
<td>-34.11</td>
<td>30.51</td>
</tr>
<tr>
<td>By Initial Asset Quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>18.4</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>12.8</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>12.0</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>19.3</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>27.9</td>
<td>3.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Initial Housing Rent Quintile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poorest quintile</td>
<td>7.35</td>
<td>2.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd quintile</td>
<td>8.79</td>
<td>2.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd quintile</td>
<td>8.96</td>
<td>2.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th quintile</td>
<td>6.40</td>
<td>3.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richest quintile</td>
<td>15.48</td>
<td>4.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Denotes statistical significance at the 5% level using an F-test on category variables.
Source: Authors' calculations.

be evidence in favor of the classic cumulative advantage hypothesis of Merton (1968): that those who start ahead get further ahead. In the second case, though, the evidence would support one form of the classic permanent income hypothesis of Friedman and Kuznets (1945): that households have permanent incomes from which they are shocked and to which they return.

The study used multiple regression analysis to carry out conditioning: that is, to determine the income that would be expected from the household's characteristics.
Figure 2-1a. Non-parametric Regression for Change in Log PCI on Initial Log PCI, Indonesia, 1993–98. 
Note: Extreme outlier data not shown.

Figure 2-1b. Non-parametric Regression for Change in Log PCI on Predicted Log PCI, Indonesia, 1993–98. 
Note: Extreme outlier data not shown.
2. Household Income Dynamics in Indonesia, South Africa, Spain, and Venezuela

Figure 2-1c. Non-parametric Regression for Change in PCI on Initial PCI, Indonesia, 1993–98.
Note: Extreme outlier data not shown.

Figure 2-1d. Non-parametric Regression for Change in PCI on Initial Predicted PCI, Indonesia, 1993–98.
Note: Extreme outlier data not shown.
The dependent variables in the regressions are changes in PCI, whether measured in log units or in currency units. Explanatory variables include time-invariant characteristics, time-varying characteristics in the base year and in the subsequent year, and base-year income. We ran Ordinary Least Squares regressions using both base-year reported income and, to correct for measurement error in the income variables, base-year predicted income.

The coefficients on base-year income in these regressions may be interpreted as follows. Suppose that the economy is growing, so that the families with a given set of characteristics are achieving income gains over time. How do the changes in income of those households that start with incomes greater than expected, given their characteristics, compare with those that start below? Four possibilities may be distinguished, as shown in Figure 2-2:

- Full conditional convergence: On average, households that started above their expected income and households that started below their expected income converge to the same final-year income.
- Partial conditional convergence: On average, households that started above their expected income fall closer to it and those that started below their expected income rise closer to it.
- Independence: On average, households that started above their expected income and those that started below get ahead at the same rate.
- Conditional divergence: On average, households that started above their expected income get even further ahead, while those that started below their expected income get ahead less rapidly or even fall behind.

The tests of these four hypotheses are gauged by the coefficients on the base-year income variable in the income change regressions described above:

- Full conditional convergence: coefficient = -1.
- Partial conditional convergence: coefficient is between -1 and 0.
- Independence (as defined in the previous paragraph): coefficient = 0.
- Conditional divergence: coefficient > 0.

Figure 2-2a. Full Conditional Convergence.
The regression coefficients obtained empirically are summarized in Table 2-4. When reported income is used, partial conditional convergence appears in all four countries, both for change in log PCI and for change in PCI. On the other hand, when initial income is predicted, partial conditional convergence is found in South Africa, but
Table 2-4  Regression of Income Change on Base-year Income, Controlling for Household Characteristics

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Base-year income</th>
<th>Indonesia</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in log PCI</td>
<td>Reported income</td>
<td>-0.66*</td>
<td>-0.80*</td>
</tr>
<tr>
<td>Change in PCI</td>
<td>Reported income</td>
<td>-0.42*</td>
<td>-0.54*</td>
</tr>
<tr>
<td>Change in log PCI</td>
<td>Predicted income</td>
<td>-0.37*</td>
<td>-0.58*</td>
</tr>
<tr>
<td>Change in PCI</td>
<td>Predicted income</td>
<td>-0.08</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Base-year income</th>
<th>Spain</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in log PCI</td>
<td>Reported income</td>
<td>-0.59*</td>
<td>-0.60*</td>
</tr>
<tr>
<td>Change in PCI</td>
<td>Reported income</td>
<td>-0.10*</td>
<td>- 0.40*</td>
</tr>
<tr>
<td>Change in log PCI</td>
<td>Predicted income</td>
<td>0.09</td>
<td>None</td>
</tr>
<tr>
<td>Change in PCI</td>
<td>Predicted income</td>
<td>0.00</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

*Denotes statistical significance at the 5% level.

Note: Household characteristics controlled for in the equations include a region dummy, household head's age, gender, schooling level, and initial employment status, changes in household head's gender and employment status, initial family type and its change, and initial number of children and its change.

Source: Author's calculations.

results from the other three countries cannot rule out the null hypothesis of independence. In no case does statistically significant conditional divergence occur: that is, it is never the case that those who start ahead of where they would be expected to be get further ahead.

Overall, the broad prediction of cumulative advantage—that those with higher than predicted initial household income gained more than those households that start below their predicted income—receives no support from these findings.

THE RELATIONSHIP BETWEEN HOUSEHOLD INCOME DYNAMICS AND OTHER HOUSEHOLD CHARACTERISTICS

The preceding sections showed that average household income changes vary a great deal, depending on households' base-year income. Which other factors are also important in accounting for variation in income change?

To answer this question, we begin with mobility profiles. These are simple relationships between household characteristics and average changes in household income. The mobility profiles are lengthy and are omitted here to conserve space. Summarizing the results, we find that several variables are statistically significant determinants of household income change. In the case of change in per capita income, the significant variables are change in the number of children and change in family type.
(significant in all four countries); employment status of the head of the household and change in employment status of the head (three); household location, education of the head of the household, number of children, and family type (two); and gender of the head of the household, change in the gender of the head, and age of the household head (one). In the case of change in log PCI, the numbers are only slightly different.

Statistical significance alone indicates nothing about the explanatory importance of these different factors in accounting for income changes. Accordingly, the analysis turned to two other measures.

One indicator of explanatory power is the $R^2$ from a simple regression of income change on each household characteristic, which measures the percentage of variation in income explained by the variation in each household characteristic. These simple $R^2$s are presented in the first column of Tables 2-5a and 2-5b for each country. Far and away the most important variable in explaining the change in log PCI is the reported initial income quintile. However, this power is due to an unidentified mix of true initial income and measurement error. Thus, the analysis also takes predicted log PCI as a proxy for true base-year income. Predicted income quintile remains an important variable in Indonesia and South Africa, but its importance is much diminished as compared with reported base-year income. The next most important variables are changes in employment status and in household composition.

What is remarkable about these results is the unimportance of the head of household's schooling (with one exception) and the head of household's gender (with one exception). Innumerable studies have shown that these variables are enormously important in explaining income levels, so it is somewhat surprising to find that these variables are not only small but in fact statistically insignificant correlates of income changes.

Here is how we interpret these findings. In the profiles and in the regressions without statistical controls, head's education is generally statistically insignificant. However, in multiple regressions used to gauge the ceteris paribus effect of schooling controlling for initial income, the effect of schooling is almost always significantly positive. Estimates of earnings functions in these and other countries have demonstrated that schooling raises income levels. There are thus two offsetting effects of schooling on income mobility. On the one hand, those with higher base-year income have smaller gains in income, and schooling raises base-year income. On the other hand, once base-year income is controlled for, those with more schooling have more positive gains in income. This may explain why schooling is statistically insignificant without controls but statistically significant (and positive) with controls. The findings for gender may be understood similarly.

The other way in which the study gauges the relative importance of different factors is by using results from a multiple regression to decompose the importance of different household characteristics in explaining variation in the income changes of households. The masses of regression results for different dependent variables, different estimation methods, and different countries would take pages to present; thus, those results are omitted here.

Based on those regressions, the study gauges the importance of one group of variables in the presence of others by using a decomposition of inequality (Fields 2001).
Table 2-5a  Relative Importance of Explanatory Variables on Change in Log Per Capita Income

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Indonesia</th>
<th></th>
<th>South Africa</th>
<th></th>
<th>Spain</th>
<th></th>
<th>Venezuela</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>$S_i$</td>
<td>$S_j$</td>
<td>$R^2$</td>
<td>$S_i$</td>
<td>$S_j$</td>
<td>$R^2$</td>
<td>$S_i$</td>
</tr>
<tr>
<td>Reported initial log PCI</td>
<td>0.286*</td>
<td>37.7%</td>
<td></td>
<td>0.272*</td>
<td>36.2%</td>
<td></td>
<td>0.011*</td>
<td>28.7%</td>
</tr>
<tr>
<td>Predicted log PCI</td>
<td>0.026*</td>
<td></td>
<td>4.4%</td>
<td>0.067*</td>
<td></td>
<td>9.1%</td>
<td>0.000</td>
<td>0.0%</td>
</tr>
<tr>
<td>Region</td>
<td>0.000</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.014*</td>
<td>2.1%</td>
<td>1.6%</td>
<td>0.002</td>
<td>0.0%</td>
</tr>
<tr>
<td>Initial number of children</td>
<td>0.001*</td>
<td>$-0.5%$</td>
<td>$-0.3%$</td>
<td>0.007*</td>
<td>$-1.9%$</td>
<td>$-1.3%$</td>
<td>0.002</td>
<td>0.6%</td>
</tr>
<tr>
<td>Head's gender</td>
<td>0.003*</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.005</td>
<td>$-0.4%$</td>
<td>$-0.2%$</td>
<td>0.046*</td>
<td>0.4%</td>
</tr>
<tr>
<td>Initial family type</td>
<td>0.000</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.021*</td>
<td>$-1.4%$</td>
<td>$-0.5%$</td>
<td>0.000</td>
<td>0.1%</td>
</tr>
<tr>
<td>Head's age</td>
<td>0.002</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.003</td>
<td>0.6%</td>
<td>0.5%</td>
<td>0.007</td>
<td>0.5%</td>
</tr>
<tr>
<td>Head's schooling</td>
<td>0.002</td>
<td>$-0.6%$</td>
<td>$-0.4%$</td>
<td>0.015*</td>
<td>0.6%</td>
<td>0.8%</td>
<td>0.001</td>
<td>0.0%</td>
</tr>
<tr>
<td>Head's employment status</td>
<td>0.036*</td>
<td></td>
<td></td>
<td>0.078*</td>
<td>$-2.1%$</td>
<td>$-0.1%$</td>
<td>0.006*</td>
<td>$-1.1%$</td>
</tr>
<tr>
<td>Change in number of children</td>
<td>0.021*</td>
<td>2.2%</td>
<td>2.5%</td>
<td>0.052*</td>
<td>6.4%</td>
<td>5.8%</td>
<td>0.002*</td>
<td>0.1%</td>
</tr>
<tr>
<td>Change in head's gender</td>
<td>0.008*</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.011*</td>
<td>0.7%</td>
<td>0.6%</td>
<td>0.000</td>
<td>0.0%</td>
</tr>
<tr>
<td>Change in family type</td>
<td>0.002</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.048*</td>
<td>3.9%</td>
<td>4.1%</td>
<td>0.001*</td>
<td>0.0%</td>
</tr>
<tr>
<td>Change in head's employment status</td>
<td>0.062*</td>
<td>3.0%</td>
<td>4.6%</td>
<td>0.122*</td>
<td>8.3%</td>
<td>8.6%</td>
<td>0.057*</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total explained</td>
<td>42.7%</td>
<td>11.7%</td>
<td></td>
<td>52.8%</td>
<td>28.8%</td>
<td></td>
<td>36.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Unexplained</td>
<td>57.3%</td>
<td>88.3%</td>
<td></td>
<td>47.2%</td>
<td>71.2%</td>
<td></td>
<td>64.0%</td>
<td>91.0%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td>100%</td>
<td>100%</td>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Denotes statistical significance at the 5% level.

Note: $R^2$ values correspond to simple OLS regression of change in log PCI on corresponding variable. $S_j$ represents the share of explanatory power of the corresponding variable in a multivariate regression that includes all other variables in the table. $S_i$ represents the share of explanatory power of the corresponding variable in a multivariate regression that includes all other variables in the table.

Source: Authors' calculations.
Table 2-Sb  Relative Importance of Explanatory Variables on Change in Per Capita Income

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>Indonesia</th>
<th>South Africa</th>
<th>Spain</th>
<th>Venezuela</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$R^2$</td>
<td>$S_j$</td>
<td>$S_i$</td>
<td>$R^2$</td>
</tr>
<tr>
<td>Initial PCI</td>
<td>0.052*</td>
<td>9.3%</td>
<td>0.099*</td>
<td>14.2%</td>
</tr>
<tr>
<td>Predicted PCI</td>
<td>0.007*</td>
<td>-0.4%</td>
<td>0.022*</td>
<td>3.5%</td>
</tr>
<tr>
<td>Region</td>
<td>0.017*</td>
<td>1.3%</td>
<td>0.010</td>
<td>1.4%</td>
</tr>
<tr>
<td>Initial number of children</td>
<td>0.000</td>
<td>-0.1%</td>
<td>0.001</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Head's gender</td>
<td>0.001</td>
<td>0.0%</td>
<td>0.004</td>
<td>0.1%</td>
</tr>
<tr>
<td>Initial family type</td>
<td>0.000</td>
<td>0.0%</td>
<td>0.013*</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Head's age</td>
<td>0.004*</td>
<td>0.4%</td>
<td>0.003</td>
<td>0.4%</td>
</tr>
<tr>
<td>Head's schooling</td>
<td>0.015*</td>
<td>2.9%</td>
<td>0.006</td>
<td>0.2%</td>
</tr>
<tr>
<td>Head's employment status</td>
<td>0.020*</td>
<td>0.2%</td>
<td>0.027*</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Change in number of children</td>
<td>0.023*</td>
<td>2.8%</td>
<td>0.050*</td>
<td>5.0%</td>
</tr>
<tr>
<td>Change in head's gender</td>
<td>0.002*</td>
<td>0.0%</td>
<td>0.007</td>
<td>0.3%</td>
</tr>
<tr>
<td>Change in family type</td>
<td>0.000</td>
<td>0.0%</td>
<td>0.039*</td>
<td>4.8%</td>
</tr>
<tr>
<td>Change in head's employment status</td>
<td>0.026*</td>
<td>1.9%</td>
<td>0.087*</td>
<td>8.1%</td>
</tr>
<tr>
<td>Total explained</td>
<td>19.2%</td>
<td>7.7%</td>
<td>31.0%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Unexplained</td>
<td>80.8%</td>
<td>92.3%</td>
<td>69.0%</td>
<td>78.8%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Denotes statistical significance at the 5% level.

Note: $R^2$ values correspond to simple OLS regression of change in PCI on corresponding variable. $S_j$ represents the share of explanatory power of the corresponding variable in a multivariate regression that includes all other variables in the table.

Source: Authors' calculations.
The question asked is: how much of the inequality in ΔPCI or Δlog PCI among households is attributable to factors such as initial income quintile, education, or age? The shares of different factors in accounting for the observed inequality in mobility experiences appear in the S columns of Tables 2-5a and 2-5b. In the middle column for each country, the decomposition is based on a regression equation using reported income, while the right column reports the factor shares using predicted income instead of reported income.

Looking first at the change in log-currency units, in all four countries, initial income appears as the single most important variable. Two other variables show substantial effects: change in the employment status of the head of household, and change in number of children. The remaining variables account for very little of the inequality in income changes, singly or together. Turning now from change in logs to change in currency units, in Table 2-5b, initial PCI (reported) remains the single most important variable in all countries except Spain, where it is second to the change in head's employment. Change in head's employment is also second in importance in South Africa and Venezuela and third in Indonesia.

Summing up, the multivariate analysis establishes the primary importance of initial economic position and change in household head's employment status in accounting for the observed inequality in income changes. Perhaps surprisingly, human capital characteristics of the household head such as education and age (as a proxy for labor market experience) consistently account for little of the observed inequality in income change. A priority for future research is to better understand the underlying causes of changes in employment status and its potential relation with education.

DECOMPOSING THE SOURCES OF CHANGE IN PER CAPITA INCOME

We turn now from causes of changing per capita income (or its log) to two fundamental decompositions. First, there is a basic accounting question of whether changes in household income or changes in household size drive the changes we observe in their ratio. Change in log PCI can be easily decomposed into the portion due to change in the household’s log income and the portion due to change in the household’s size. We calculate the fraction of households for which the change in log-income accounts for at least half the total change in log PCI. These percentages—83 percent in Indonesia, 72 percent in South Africa, 96 percent for Spain, and 88 percent for Venezuela—demonstrate that for the vast majority of households in these countries, it is changes in household income (the numerator) rather than changes in number of household members (the denominator) that account for the bulk of their changes in per capita income.

Next, we seek to find which sources of income drive these income changes. Since our measure of household income in a given year is a sum of various income components, change in household income can be additively decomposed into the change in its component parts. We use two methods for assigning quantitative importance to various income components. One was devised by John Fei, Gustav Ranis, and Shirley Kuo (1978) and Graham Pyatt, Chau-Nan Chen, and John Fei (1980). The other was
developed by Anthony Shorrocks (1982). The results of these decompositions appear as the factor inequality weights displayed in Table 2-6. The share of inequality in per capita income changes accounted for by labor earnings ranges from approximately two-thirds for Indonesia to nearly 90 percent in Venezuela. For these four countries the message is strikingly clear: change in labor income is the most important source of change in total income.

In sum, this section has reached two main conclusions. First, for the great majority of households, change in household income is more important than change in family size in accounting for change in log PCI. Second, change in household income is attributable more to change in labor earnings than to change in non-labor income. These results do not imply that changes in household composition have a small total effect on household income, since the entrance and exits of household members often have a direct effect on households’ labor income. These conclusions, however, along with the employment dynamics results in the previous section, point to the need for further research on the changes in households’ labor market earnings as a vital component in understanding changes in economic well-being.

ESCAPES FROM POVERTY

Up to this point, we have looked at the determinants of income changes in all parts of the income distribution. We now turn to analyzing the dynamics of poverty in the four countries, using country-specific poverty lines. Throughout this analysis, the term


**Table 2-7 Percentage of Households by Poverty Experience**

<table>
<thead>
<tr>
<th>Country</th>
<th>Total number of households</th>
<th>Percent non-poor both periods</th>
<th>Percent poor both periods</th>
<th>Percent exiting poverty</th>
<th>Percent entering poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>5,370</td>
<td>76.0%</td>
<td>3.9%</td>
<td>14.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>South Africa</td>
<td>820</td>
<td>33.5%</td>
<td>34.2%</td>
<td>18.5%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Spain</td>
<td>1,245</td>
<td>79.5%</td>
<td>10.9%</td>
<td>6.2%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Venezuela</td>
<td>7,516</td>
<td>35.5%</td>
<td>35.9%</td>
<td>15.7%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

Source: Authors' calculations.

"exiting poverty" implies being poor in period one and rising out of poverty in period two. The analysis of escaping poverty will be conducted on the subsample of households poor in the initial period. Likewise, the analysis of "entering poverty" will be conducted on households that were not poor in the initial period.

Table 2-7 provides the weighted percentages of households in our samples that were not poor in either period, that were poor in both periods, that escaped poverty, and that entered poverty. In each of the four countries poverty rates declined, since more households exited poverty than entered poverty. Indonesia is notable for its extremely low percentage of persistent poverty (poor in both periods) compared to transient poverty (leaving or entering poverty). This finding is consistent with findings on poverty dynamics in Indonesia after that country's financial crisis in 1998. In contrast to Indonesia, where fewer than 30 percent of households that were poor initially remained poor, income poverty was more permanent in the other countries: 71 percent of poor households in Venezuela, 65 percent of poor households in South Africa, and 64 percent of poor households in Spain remained poor.

Other things equal, which household characteristics are correlated with escaping poverty and which with entering poverty? To answer these questions, we estimated the probability of escaping and entering poverty using a number of logit models. Three variables were found to be consistently and significantly associated with poverty exits in the four countries: a change in employment by the head of household, the region of residence, and the number of children in the household. Changes in employment status of the head are significant in explaining transitions out of poverty for all countries. In all countries except Venezuela, these job changes were not only statistically significant, but also had the largest effect on the probability of escaping poverty among statistically significant variables. In Indonesia, Spain and South Africa, the probability of escaping poverty varies by over 20 percentage points, depending on the employment transitions of the head.

While employment changes are significant determinants of poverty escapes in each country, as expected, some other relationships between employment changes and escape rates were unexpected. In Indonesia, if the household head started in the formal sector, escape rates were similar whether the head worked in the final period or not. In South Africa, if the household head in a poor family left the formal private sector, the household was much more likely to escape poverty than if the head remained in the formal private sector. Additionally, South African households where the head
entered the informal sector were less likely to have exited poverty than households where the head entered the inactive status.

Finally, we probed further the relationship between poverty transitions and the head's job category in the base and final year (where data are available). The main finding is that households where the head was involved with the public sector escaped poverty and avoided falling into poverty at above-average rates. However, public sector employment is a small fraction of total employment in the three countries for which data are available and therefore few of the households that escaped poverty had the head working in the public sector.

Table 2-8 shows the distribution of transitions out of poverty by head's employment category. For countries where the data are available, these figures show that the private sector accounts for a much larger proportion of poverty escapes than does the public sector.

The analysis of poverty transitions yields the following conclusions. First, changes in the head of household's employment, region of residence, and number of children in the household are important correlates of entering and escaping poverty. Second, households with heads working in the public sector have a higher probability of escaping poverty.

<table>
<thead>
<tr>
<th></th>
<th>Base-year employment category of head</th>
<th>Final-year employment category of head</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indonesia</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector employee</td>
<td>1%</td>
<td>Working 82%</td>
</tr>
<tr>
<td>Other formal</td>
<td>12%</td>
<td>Jobless 18%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td>Informal sales</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Family worker</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Inactive</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total 100%</td>
</tr>
<tr>
<td><strong>South Africa</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal-public</td>
<td>2%</td>
<td>Formal-public 13%</td>
</tr>
<tr>
<td>Formal-private</td>
<td>11%</td>
<td>Formal-private 15%</td>
</tr>
<tr>
<td>Informal</td>
<td>28%</td>
<td>Informal 20%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>14%</td>
<td>Unemployed 8%</td>
</tr>
<tr>
<td>Inactive</td>
<td>45%</td>
<td>Inactive 44%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total 100%</td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>30%</td>
<td>Employee 46%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>20%</td>
<td>Self-employed 21%</td>
</tr>
<tr>
<td>Employer</td>
<td>1%</td>
<td>Employer 1%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>21%</td>
<td>Unemployed 6%</td>
</tr>
<tr>
<td>Inactive</td>
<td>28%</td>
<td>Inactive 26%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total 100%</td>
</tr>
<tr>
<td><strong>Venezuela</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector employee</td>
<td>12%</td>
<td>Public sector employee 12%</td>
</tr>
<tr>
<td>Private sector employee</td>
<td>26%</td>
<td>Private sector employee 27%</td>
</tr>
<tr>
<td>Self-employed</td>
<td>25%</td>
<td>Self-employed 27%</td>
</tr>
<tr>
<td>Employer</td>
<td>6%</td>
<td>Employer 7%</td>
</tr>
<tr>
<td>Jobless</td>
<td>31%</td>
<td>Jobless 28%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total 100%</td>
</tr>
</tbody>
</table>

Source: Authors' calculations.
than households with heads working in the private sector. Third, of the households that escaped poverty, many more of the heads worked in the private sector than in the public sector. Thus, the private sector is the main engine to help families escape poverty.

CONCLUSIONS

This study has examined change in per capita household income, in both logarithmic and monetary terms, in four very diverse economies—Indonesia, South Africa, Spain, and Venezuela—in the 1990s. Despite differences in types of data, years of observation, macroeconomic conditions, and income levels, major patterns—some expected and some unexpected—emerged.

The first question was which households gained the most in terms of per capita income over the period: those that were advantaged, initially, or those that were disadvantaged, initially. In all four countries, the households that reported lower initial incomes experienced more favorable income changes than those that reported higher initial incomes. That is, those households that reported low base-year income experienced the highest or most positive average income gains. Those with high base-year income experienced the lowest or most negative average changes.

Because measurement error in initial income could lead reported incomes to overstate convergence, the study also approximated longer-term base-year income by predicted income. Using this measure yielded a similar result in log terms. The households that were predicted to be poor, initially, experienced the highest log-income gains in all four countries. However, in currency unit terms, the results were mixed. When predicted incomes were used, South Africa and Venezuela continued to exhibit convergent patterns, Indonesia exhibits a divergent pattern, and Spain may have had a divergent pattern.

Overall, our work gives very little support to those who argue that the poor are being left out or are being made poorer, at least in these four countries. Rather, in all four countries, initially poor households experienced more favorable income changes than their richer counterparts, when changes are measured in percentage terms. And when changes are measured in currency units, we find that in South Africa and Venezuela, initially poor households experienced greater absolute income gains than did initially rich households.

The second question was whether income changes move households closer to the incomes that would be predicted on the basis of their observed characteristics, or further away. Using reported initial income, the evidence in all four countries overwhelmingly supports convergence to the household’s conditional expected income—which is consistent with models in which the effect of income shocks decays over time. Results are mixed when using predicted initial income. However, nowhere does the evidence support statistically significant conditional divergence, whereby the rich get relatively richer (that is, positive shocks produce upward spirals) and the poor get relatively poorer (negative shocks produce downward ones).

Third, of the variety of factors besides initial income that are possible determinants of per capita income changes, changes in the employment sector of the household
head appeared as a quantitatively important variable in all four countries. This is not surprising. What is surprising, at least to us, is that in three of four countries, no important role emerged either for the education of the head of household or for the head’s gender in accounting for changes in per capita income.

Fourth, for over 70 percent of households in each country, the change in per capita income was primarily accounted for by their change in income and not by the change in their number of household members. In addition, in each country, changes in labor earnings are more important causes of change in household income than are changes in all other income sources combined.

Finally, transitions out of or into poverty are most strongly influenced by transitions of the head of household’s employment. Public sector employment of the household head substantially increases the likelihood of escaping from poverty, but accounts for relatively few such escapes. Most households that escaped poverty were headed by private sector workers rather than public sector workers.

Returning to the larger issue with which this analysis began, overall we have found that even in today’s highly globalized world, in these four countries, poor households have participated at least proportionately in the economic growth that has taken place. In at least two of the four countries, they have gained more in currency units, as well. These results emphasize the important role policies that spur economic growth and promote a favorable investment climate play in bringing tangible economic benefits to the world’s poor.

Lastly, from the point of view of further research, the findings about the labor market are of particular interest. The study found that initial income and job changes of the head of household are consistently the most important variables in explaining change in per capita income. Changes in income are more important than changes in household size, and changes in labor earnings are more important than changes in all other sources of household income combined. These findings emphasize the importance of studies and policies that promote labor market growth in the pursuit of a world free from poverty.

REFERENCES


NOTES

*The authors would like to thank the International Finance Corporation for financial support.

1 The data sources and years of coverage for each country are as follows: (Indonesia) the Indonesian Family Life Survey for 1993 and 1997; (South Africa) KwaZulu-Natal Income Dynamics Study for 1993 and 1998; (Spain) the Spanish Household Panel Survey (Encuesta Contínua de Presupuestos Familiares) from 1995 and 1996; (Venezuela) the Venezuelan Sample Household Survey (Encuesta de Hogares por Muestreo) from 1997 and 1998.

2 The latter two items were used in Indonesia and South Africa, only.

3 The profiles appear in detail in the full study (Fields and others 2001).

4 The regressions are omitted here for space reasons but are available upon request.

5 A similar table for transitions into poverty is omitted for space reasons.
The debate over economic growth and economic mobility continues to rage. On the positive side, ample studies have shown that when economic growth has taken place, poverty has fallen; when poverty has not fallen, it typically is because economic growth has not taken place (Dollar and Kraay 2001; Fields 2001). “A world free of poverty” is the mission of the World Bank; for its part, the International Finance Corporation (IFC) seeks to “promote private sector investment in developing countries, which will reduce poverty and improve people’s lives.” The IFC has long placed improved investment climate at the core of its economic development activities. In a series of speeches, Nicholas Stern, chief economist of the World Bank, has emphasized the linkage between private sector development and poverty reduction. Summing up the findings from a large body of research, Stern has said, “The investment climate—urban and rural, at both the national and state level—is key to achieving sustained poverty reduction” (Stern 2001).

Not everyone shares this view. People are literally casting stones at the World Bank, the IFC, the International Monetary Fund, and other organizations whose activities, they believe, are harmful to the poor. Skeptics argue that the labor force has failed to share in the gains from economic growth. According to them, workers in developing countries lack the rights, legal protection, and union representation to participate in any of the benefits of economic growth.

It is said that multinational firms exploit their workers and their wages do not rise, even with an increase in demand for their work; that globalization makes some
people who are already rich even richer by keeping the poor in poverty; and that economic growth is good for companies and bad for workers. The argument is that growth that is driven by trade or investment gives Western multinationals a major role in the development of the country, and these big firms are interested only in profits and not in the well-being of the people. One critic (Gindin 2002: 5) proclaims, “Where growth has come, it has come not with a general improvement in social justice but with costs in terms of internal democracy, human rights, and equality. In the mid-fifties, a Latin American general, when asked about economic development in his country, responded with words that still capture so much of the present reality in third world so-called success stories like Brazil and Mexico: ‘The economy is doing great, but the people in it aren’t.’” Another critic (Henwood 1996: 4) states, “The antiglobalizers are right that economic growth doesn’t necessarily make people happier, and often makes them miserable; that institutions like the World Bank have made the rich richer while making the nonrich poorer; that conventional ideas of free trade are wonderful for managers and stockholders, but hell on workers and nature; and that a turn away from the accumulation of things and toward more humane pursuits would be highly welcome.” All these forces are alleged to have become even more powerful during the heightened globalization of recent years. As Jagdish Bhagwati (2002: 2) puts it, “Globalization’s enemies see it as the worldwide extension of capitalism, with multinational corporations as its far-ranging B-52s.”

This chapter builds a new database and presents evidence for judging among these competing views. We provide fresh, detailed evidence on long-term economic mobility and market-oriented economic growth in four economies: Taiwan (China), Indonesia, Costa Rica, and Brazil. (Because of the absence of suitable data sources for African countries and transition economies over the long term, we could not include any of these countries in our study.) In this study, “long-term economic mobility” refers to the structural changes that take place over time, producing improvements or deteriorations in key indicators of economic status for successive cohorts of individuals.

Consistent with the mainstream view of economic growth as a factor promoting long-term economic mobility, we hypothesize that those economies in which economic growth has been most rapid are precisely the ones that have achieved the greatest progress toward poverty reduction through improved labor market conditions, especially in private employment. We also hypothesize that the positive relationship running from economic growth through the labor market to poverty reduction continued to hold in the 1990s in essentially the same way as in earlier years when globalization was less intense. Both hypotheses are confirmed by our data. Our results therefore cast doubt on two claims: that workers are being left out of economic growth today, and that workers participated in economic growth before but are not able to do so now.

CONTRIBUTIONS, METHODS, AND HYPOTHESES

The International Finance Corporation’s publication Paths Out of Poverty (2000) lays out the rationale for the IFC’s work on poverty reduction. Paths Out of Poverty looks
for the actual, concrete mechanisms for escaping from poverty. The focus is on the role of the private sector. In a healthy business environment, spurred on by competition and with appropriate support from the government, private enterprise can be a significant source of upward mobility and poverty reduction, generating employment and tax revenue, increasing investment, and encouraging innovation, openness to ideas, and empowerment. The study finds a clear mutuality of interests among private enterprises—whether large, medium, or small—government, and the poor.

As a follow-on to *Paths Out of Poverty*, it is desirable to explore further the links between the business environment and poverty reduction, a subject that has been largely neglected in the economics literature. While it is clear to all that what ultimately matters is *long-term* reduction in poverty rates and not just short-term transitions, surprisingly little empirical work has been done on the proximate causes of poverty reduction. Long-term economic growth of course matters, but what are the actual, precise mechanisms by which people move out of poverty as the economy grows?

It is useful to think of people benefiting from economic growth in two ways: in their capacities as consumers and in their capacities as workers. In their capacities as consumers and by virtue of their citizenship (or residence) in growing economies, people are provided with valuable goods and services, including food, housing, and health care. Furthermore, in their capacities as workers, people may benefit from economic growth by improved types of participation in the labor market. In these two ways, the fruits of economic growth may be spread so as to enable people to lead better lives. If these views are correct, we would expect to find that those countries that had introduced and maintained successful growth-oriented policies would be the ones that achieved more rapid and sustained improvements in standards of living for people both as consumers and as workers. Many years ago, Walter Galenson (1977: 21–22) captured this view perfectly: "Rapid sustained growth has had positive effects on the living standards of all economic groups of those countries that experienced it…. Growth has not ‘failed’; there has simply not been enough of it in the great majority of less developed nations."

The *World Development Report 2000/2001* dealt at length with improvements in the lives of people as consumers, but gave much less attention to the long-term effects of economic growth on changes in opportunities for people as workers. The report put forth a three-part program for attacking poverty through opportunity, empowerment, and security; however, the report had little to say about what promotes upward mobility in the longer term. In contrast, the *World Development Report 1990* urged policies making fuller use of the poor’s most abundant asset: their labor. The Bank’s 1993 study, *The East Asian Miracle*, included a section on the contribution of that region’s efficient labor markets to rapid economic growth, and the *World Development Report 1995* looked specifically at “Workers in an Integrating World.” The 1995 *World Development Report* maintains that economic growth delivers higher wages and encourages workers to move to better paying and higher productivity jobs in the formal sector. Specifically, the report states (p. 3): “Growth has reduced poverty through rising employment, increased labor productivity, and higher real
wages. Growth also tends to reduce poverty and inequality, including inequality between men and women. For today's low- and middle-income countries, the fear that growth will primarily benefit capital, create few jobs, and fail to raise wages is unfounded.

Development economics offers a long and distinguished history of research on how labor market conditions change in the course of economic growth. The Nobel Prize-winning work of W. Arthur Lewis (1954) and subsequent amplifications by John Fei and Gustav Ranis (1964) hypothesized that economic growth may lead first to an increase in the share of the labor force in relatively well-paid jobs and then, once the labor surplus is exhausted, to rising real earnings levels among a close-to-fully employed labor force, enabling people to use their improved labor incomes to buy valued goods and services. Earlier work by Fields (1984, 1985, 1994) confirmed this pattern empirically in the rapidly growing economies of East Asia.

What is missing thus far are original country studies focusing on long-term economic mobility in developing countries running up to the present. As used in this study, "long-term economic mobility" is the upward or downward change in real incomes and other indicators of economic well being, such as employment status. This is to be distinguished from such other aspects of economic mobility as the amplitude of income fluctuations ("non-directional income movement" or "flux"), the percentage of people who change income quintile/decile/percentile ("positional movement"), the change in people's shares of total income ("share movement"), and the correlation between income at an earlier date and income now ("time-dependence"). We concentrate here on directional movements in income and other indicators, because of the clear welfare significance that these have (Fields 2001).

The aspects of long-term economic mobility that we will investigate are the gains or losses in income and other indicators experienced over the course of decades. Because of lack of data, we will not be looking at the changes in permanent incomes of individuals in the course of their life cycles or individuals' incomes today, compared to incomes a generation or two ago. The ideal way to study long-term economic mobility would be to compare the economic situations of particular individuals now with their own economic situations decades ago. To do this on a country level, we would need a national panel survey conducted over many years, such as the Panel Study of Income Dynamics in the United States, which started with 5,000 American families in 1969 and has traced the original people who remain in the same families, those who split and formed new families, those who were born, and those who died. No developing country in the world offers such a data set. In the absence of such data, the next best way to investigate long-term economic mobility is to compare conditions for today's generation with those of a previous one using comparable surveys at the national level.

Thus, the questions we want to look at for the selected countries are these: In the last 20 or 30 years, by how much have incomes risen and for whom? Are more people working now than before and are they working in better jobs? What has happened to poverty and inequality over time? What role has the development of the private sector played in the long-term economic mobility of these countries?
No comprehensive database is available for answering such questions, and so a substantial investment in data preparation is required. The best data that exist now are in the “Database of Labor Market Indicators across Countries,” being prepared by Martin Rama and Raquel Artecona (forthcoming) at the World Bank. Information is being compiled on a wide range of variables (labor force and participation rates, employment and unemployment, wages and productivity, conditions of work and benefits, trade unions and collective bargaining, public sector employment, and labor standards) for 121 countries, both developed and developing. This database is still under construction, and no analysis of the data has appeared to date. Accordingly, to assemble the information needed to answer the questions posed in this study, we have had to conduct meticulous within-country work.

In each case, the high-quality household surveys that have been conducted over decades are examined: the manpower utilization surveys and surveys of family income and expenditure in Taiwan, the SUSENAS and SAKERNAS surveys in Indonesia, the National Household Surveys in Costa Rica, and the PNAD surveys in Brazil. These surveys have generally been conducted using consistent sampling frames and questions so that the results are comparable over time; when changes have been made rendering certain series incomparable, we noted these in the data documentation. Because these surveys include labor market data solely or primarily, the focus of our work will be on changes in employment and labor earnings.

Compiling the data from these various surveys proved to be a laborious undertaking, because the information is presented in scattered sources, often on year-by-year basis, and more often than not in a form that requires extensive additional calculations. In this chapter, we present figures depicting the changes in a number of labor market indicators that took place in each country over the course of decades (see Appendices A–D). A detailed data appendix with tables, definitions, and sources is available from the authors upon request.

We hypothesize that economic growth would affect poverty in the following ways:

**Hypothesis 1**

Open unemployment falls until essentially full employment is attained. By international agreement, a worker is defined to be “openly unemployed” if he or she did not work even one hour for pay in the preceding week or month but was actively looking for work. In economies without strong social safety nets, few people can afford to be entirely without work for any length of time, and therefore open unemployment is only the tip of the proverbial employment problem iceberg.

**Hypothesis 2**

The composition of employment improves, shifting away from low productivity sectors, occupations, and occupational positions. Specifically, we expect that:

**Hypothesis 2a** A falling percentage of workers will be employed in agriculture. (This is a positive development because agriculture is typically the lowest-paying sector in a developing economy.)
Hypothesis 2b: A growing percentage of workers will be employed in wage and salary jobs. (This is an improvement, because in many countries but by no means all, these jobs pay better than self-employment and unpaid family work.) (For a discussion of this issue, see the chapter by William Maloney in this volume.)

Hypothesis 2c: A growing percentage of workers will be employed in professional and other high-level occupations. (These are the best-paying jobs in the economy.)

Hypothesis 2d: A smaller percentage of workers will have low levels of education. (This is good, because workers with more education earn more.)

Hypothesis 2e: A rising percentage of workers will be employed in the private sector. This would point to the private sector as the source of dynamism in the economy.

Hypothesis 3:
Real earnings rise overall, for both female and male workers, in various industries, and in both the public and private sectors.

Hypothesis 4:
As a consequence of the outcomes of Hypotheses 1–3, poverty will fall.

Hypothesis 5:
Inequality may or may not fall. We offer no specific hypothesis about inequality, because empirical research has shown that inequality in developing countries rises as often as it falls, and the rise or fall is not significantly related to the rate of economic growth (Fields 2001).

THE FOUR COUNTRY CASES

What does the actual experience of the four very different economies we study indicate about our hypotheses? We turn now to an investigation of the countries.

The Case of Taiwan (China)
The Newly Industrialized Economies (NIEs) of Taiwan (China), Hong Kong, Singapore, and South Korea have been labeled the "Four Tigers" because of their strong economic performance. (For more on South Korea, see the chapter by Se-Il Park in this volume.) Taiwan, in particular, has had spectacular growth over the past 30 years; per capita real GNP has increased seven-fold over that period.

In past studies, Gary Fields (1984, 1985, 1994) has used data from Taiwan's manpower utilization surveys and surveys of family income and expenditure to test the preceding five hypotheses for Taiwan for earlier dates. The general finding is that Taiwan grew rapidly and the labor force benefited greatly from that growth in the hypothesized ways. Combining these time series and updating them up to the year 2000, we find that labor market conditions in Taiwan continued to improve with economic growth. (See Appendix A for detailed information about growth,
unemployment, employment composition, real earnings, and poverty and inequality in Taiwan). The unemployment rate, though higher than before, has never exceeded 3 percent. The composition of employment improved. Agricultural employment fell from 37 percent of total employment in 1970 to less than 8 percent today. Paid employment as opposed to self-employment and unpaid family work grew from 51 percent of total employment to 71 percent. Professionals as a percentage of total employment went up from 15 percent in 1970 to 38 percent in 2000. The lower education group plummeted; those with less than a secondary education fell from 74 percent to 18 percent of the employed population in 30 years.

The powerhouse behind the growth of employment in Taiwan's labor market was the private sector. Consider three groups of workers: wage and salary employees in the public sector, wage and salary employees in the private sector, and self-employed and other workers in the private sector. Between 1970 and 2000, the number of wage and salary employees in the public sector fell, implying that all the growth in employment was in the private sector. Within the private sector, wage and salary employment grew at the expense of self-employment and other types of work.

Real earnings rose overall, for both men and women, and for every industrial grouping and sector. Although real earnings have risen, they have not seen the phenomenal growth in the 1990s that occurred in the 1980s. Workers' wages in Taiwan grew at a slightly higher rate than the economy's growth rate in the 1980s. This was not the case in the 1990s: GNP per capita grew by 68 percent in real terms, while real earnings grew by 33 percent. Disaggregating, we find that the earnings gap between male and females fell throughout the 1990s. In 1990, females' real earnings were 67 percent of males'. By 2000, their earnings were 74 percent of males'. Earnings increased in each sector (community, social, and personal services; manufacturing; and trade). Public sector earnings remain only somewhat above average, as was the case 20 years ago, confirming Taiwan's position as one of the most highly integrated labor markets in the world.

The reduction of poverty has been outstanding throughout Taiwan's history of economic growth. The estimated percentage of households with disposable incomes less than NT$200,000 in 1980 prices was 47 percent in 1980 and just 11-12 percent in the late 1990s.

Finally, income inequality has been slowly and steadily rising since 1980. Nonetheless, Taiwan today still has one of the most equal distributions of income of any economy in the world.

In summary, the economic growth that has taken place in Taiwan was passed on to workers in the form of continued close-to-full employment, higher wages, improvements in the job mix, a better-educated work force, and a reduction in poverty. Economic growth in Taiwan continued to promote long-term economic mobility in the 1990s, just as in the previous decades.

The Case of Indonesia

Indonesia has been labeled one of the "Asian Cubs" for its strong performance in sustained economic growth. During the three decades prior to the economic crisis of 1997-98, real GNP per capita in Indonesia grew on average by 4.5 percent a year.
To investigate to what extent Indonesia's economic growth was passed on to the workers, we divide our analysis into the strong growth period up to 1997, the economic crisis in mid-1997 that led to the massive fall of GDP per capita in 1998, and the attempted recovery since (see Appendix B).

The Central Bureau of Statistics (BPS) conducts a household survey called SAKERNAS, or the National Labor Force Survey, from which the official labor market statistics are derived. For the most part, the data are comparable over time. One substantial change was made in 1998, however; the minimum age for the survey was raised from 10 to 15 years old.

When Indonesia's period of strong economic growth began, essentially full employment had already been attained. Unemployment hovered between 2 and 3 percent until the crisis, then jumped to 6 percent in 1999. Improvements in labor market conditions in Indonesian economic growth were reflected not in open unemployment but in employment composition, which exhibited sharp improvements. Workers shifted away from low productivity agriculture and into higher paying sectors. In 1976, 62 percent of total employment was in the agricultural sector. By 1997, the percentage of agricultural workers had declined to 41 percent. From 1986 to 1997, industrial employment more than doubled, from 8 percent to 19 percent of the labor force (Smith and others 2000). Professional employment also grew. In 1976, 5 percent of total employment was in professional occupations. By 1997, the percentage had increased to 9 percent. As a result of the shift away from agricultural employment and into industrial and professional jobs, employment in the formal wage sector went up. The work force has also become more educated, as the percentage of employed persons with less than a secondary education has decreased from 91 percent in 1976 to 67 percent in 1997. All these improvements reflected the pull of workers into growing sectors of the economy, with consequent rising real earnings not only in the sectors they were moving to but in the sectors that they were leaving (see discussion below).

Statistical data on wages reveal that workers have benefited from economic growth. The statistical authorities do not publish data on real wages. We converted the nominal earnings to real earnings using the Consumer Price Index from the IMF, which covers only urban prices. Real earnings rose for males, females, and each main industry during the 1990s until 1998. From 1991 to 1997, real earnings grew by around 47 percent, which was faster than the growth rate of the economy. Employees' earnings in manufacturing grew by 51 percent, as compared with 38 percent for workers in agriculture and 29 percent for workers in trade. Thus, the workers of Indonesia benefited with higher earnings from the economic growth of the early and mid-1990s.

The rapid economic growth since the late 1960s had a major effect on poverty. In 1976, the incidence of poverty was around 40 percent of the population. By 1996, the percentage of the population below the poverty line had fallen to 11 percent. There was no pronounced trend in inequality over this period.

Overall, then, workers benefited from the positive economic growth in Indonesia through 1997. The employment composition improved, the work force became more educated, real earnings went up for males and females and in each sector, and
poverty fell significantly. The only negative feature was the increase in open unemployment by 3 percentage points, which is dwarfed by the 47 percent increase in real earnings.

Although this is a study of long-term economic mobility, we would be remiss if we did not talk about economic events in Indonesia in the last few years. After more than a quarter of a century of sustained economic growth, a major economic crisis hit Indonesia in the middle of 1997. The crisis was extremely severe, causing a 15 percent contraction in real GDP per capita in 1998 and a fall in the rupiah to one-quarter of its 1997 value.

How did the economic crisis affect the composition of employment? What happened to the labor market because of this huge economic decline?

During the Indonesian economic crisis, the unemployment rate increased, but only from 4.7 percent in 1997 to 5.5 percent in 1998 and 6.4 percent in 1999. The impact of the crisis on the labor market was not felt as harshly on employment as it was on earnings. The reason massive unemployment did not occur was because of the flexibility of the Indonesian labor market to take in displaced workers. During economic decline, the employment structure would be expected to shift back into less productive and lower paying sectors and occupations. This is exactly what happened during the Indonesian crisis. Displaced workers from the more productive sectors, occupations, and occupational positions were forced to find jobs in the low-paying agricultural and informal sectors. Agricultural employment increased by almost 5 million workers, raising agriculture's share of total employment from 41 percent in 1997 to 45 percent in 1998. About half consisted of workers from other sectors; the other half, of new entrants to the labor force (ILO 1999). Wage and salaried employees as a percentage of total employment decreased from 35 percent in 1997 to 33 percent in 1998. Wages during the economic crisis fell dramatically. "The drama of the crisis lies not in employment but in earnings," Duncan Thomas and his colleagues note (Thomas, Beegle, and Frankenberg 2000: 16). Real earnings for both males and females decreased by about 40 percent from 1997 to August of 1998, according to an ILO study (1999). Real hourly earnings during the crisis collapsed by around 40 percent in one year, James P. Smith and his colleagues found (Smith and others 2000). This study also noted that real hourly earnings of self-employed males in the rural areas have remained essentially stable. These workers account for one-quarter of the male work force in Indonesia; thus conclusions about the effects of the crisis on earnings that focus only on the market wage significantly overstate the magnitude of the crisis (Smith and others 2000).

The crisis reversed the substantial gains that Indonesia had made throughout the years in poverty reduction. By one estimate, in 1996, 11 percent of the populace was living in poverty; but because of the crisis, the poverty rates more than doubled to 24 percent (Smith and others 2000). By another estimate using a different methodology, the poverty rate rose from 18 percent in 1996 to 27 percent in 1999 (Suryahadi and others 2000). This is what would be expected from the decrease in real wages, worsening of the employment structure, and increase in people out of work. Since the Gini coefficient of expenditure was 0.36 in 1996 and 0.31 in 1999, it would seem that the crisis has fallen disproportionately on higher income people.
As this chapter is being written, the latest figures show an unemployment rate of 8.1 percent, 60 percent of the population living below a poverty line of $US2 a day, and dubious economic prospects. Poverty remains substantially higher than it was immediately before the crisis (Suryahadi and others 2000). The workers in Indonesia are continuing to suffer from the doldrums the economy is facing.

The Case of Costa Rica

This study uses statistical data obtained from the household survey in Costa Rica, first called the Encuesta Nacional de Hogares, Empleo y Desempleo and later the Encuesta de Hogares de Propósitos Múltiples. Data on labor market conditions in Costa Rica date back to 1976. However, because of a change in the survey format, data after 1986 are not strictly comparable to earlier ones. (See Appendix C for detailed information about growth, unemployment, employment composition, real earnings, and poverty and inequality in Costa Rica.)

Costa Rica exhibited economic growth in the 1970s, recession in the early 1980s, and uneven but generally positive growth since. Growth has never been rapid, so it would be expected that labor market conditions would not have changed much either.

In many respects, that is in fact the case. The unemployment rate doubled in the 1981 recession, then gradually came down; since 1987, it has been little changed. The movements of workers out of agriculture and out of the low education categories have continued, at similar rates in the 1976–86 and 1987–2000 periods. The labor force moved gradually into wage and salaried employment, but that trend stopped in the late 1980s. On the other hand, the growth of professional employment continued at the same pace in the later period as in the earlier one.

For a long time, the Costa Rican labor market has been characterized as a segmented one, in which wages in the public sector are substantially higher than those in the private sector (Gindling 1991). Interestingly, since 1987, the public sector has been shrinking in relative size, though its wage advantage has changed little. Most Costa Rican employment growth has taken place in the private sector, and this trend has accelerated in the latter period as compared to the earlier one.

During the lost decade of the 1980s, real incomes stagnated. Since then, they have slowly been rising: overall; for men and for women; in both the public and the private sectors; and in each sector (manufacturing, commerce, agriculture, and services). Poverty rates rose during the recession of the 1980s, then started falling. That trend has continued unabated since 1987, according to both government and Inter-American Development Bank estimates. Inequality appears to have fallen in the 1976–86 period and to have remained unchanged since.

In sum, when there was economic growth in Costa Rica, workers benefited. The economic growth that occurred was transmitted through the labor market with a movement to higher paying jobs, substantial increases in real income, decreases in unemployment, and lower poverty. The rise in earnings has been comparable to the rise in GDP.
The Case of Brazil

This study is based on data on labor markets and income distribution derived from the Pesquisa Nacional Por Amostra de Domicílios (PNAD). Surveys were conducted annually during the 1990s (excluding the years 1991 and 1994, when there were no surveys). After 1990, the PNAD was revised, which introduced many changes in the survey. Because of these changes, it would not be appropriate to compare pre- and post-1990 statistical data directly. (See Appendix D for detailed information about growth, unemployment, employment composition, real earnings, and poverty and inequality in Brazil.)

Like other Latin American countries, Brazil experienced positive real per capita GDP growth in the 1970s, stagnation in the 1980s, and slow growth in the 1990s. Unfortunately, the unemployment rate did not fall during either growth period. However, the job mix did improve, as the share of employed persons in professional employment rose and the share in agriculture fell. The fraction of workers with low education fell, but remains disturbingly high.

Based on special tabulations from the PNAD, generously prepared for us by Sergei Soares of Instituto de Pesquisa Econônica Aplicada, we were able to examine the changes in different types of employment in the stagnation years of the 1980s and again during the growth years of the 1990s. In both periods, public sector contract employment grew faster than did private sector contract employment and informal sector employment. The Brazilian labor market is said to have exhibited “tremendous flexibility” overall, but the government’s employment policy is charitably said to have been “generous” (Fox, Amadeo, and Camargo 1994: 159–60). Based on these figures and characterizations, we conclude that the public sector played a disproportionate role in the small improvements that took place in the Brazilian labor market. Nonetheless, because formal public employment is only a small fraction of total employment, most of the job growth in Brazil was in the private sector; within that, most of the growth was in informal employment. This reflects a region-wide phenomenon. In Latin America during the 1990s, seven of every ten new jobs in cities were generated in the informal sector (ECLAC 2001).

Earnings data in Brazil are problematic, because of the hyperinflation that took place in many years and the inability to adjust the nominal wage series by a CPI pertaining to the precise month (or even week) when the survey was conducted. Nevertheless, looking at broad trends, we see somewhat positive earnings growth in the 1980s and substantially positive earnings growth in the 1990s. The gender pay gap has been contracting, a progressive development. On the other hand, real earnings, which were already higher in the public sector than elsewhere, grew even faster than in the private sector—a sign of deepening labor market segmentation.

The 1980s were a time of rising poverty, owing to an increase in the already high income inequality in Brazil and the slow economic growth registered during that time (Londoño and Székely 1998). In the 1990s, though, growth has been more rapid, poverty has been falling (Székely 2001), and inequality has stopped rising. Still, the
poverty rates reported for Brazil for the 1990s are considerably higher than those reported for the 1970s and early 1980s.

In summary, the Brazilian labor market did not improve much, mainly because the economy did not achieve much growth and because what small gains there were tended to be quite unequally distributed.

LESSONS LEARNED FROM THE COUNTRY STUDIES

A comparison of the four country studies yields some powerful findings. Economic growth has been the driving force leading to improved labor market conditions and therefore to reductions in poverty. Moreover, the faster the economic growth, the faster the fall in poverty.

Taiwan was the fastest growing country, and it eliminated 75 percent of its poverty in 14 years of rapid economic growth, achieving a 5.4 percent annual reduction in the poverty rate. Indonesia pre-crisis was able to reduce its poverty rate by almost as much: 72 percent. Because of slower growth, however, its annual rate of poverty reduction was a more modest 3.6 percent. Sadly, poverty rates fell by much less in Costa Rica (2.1 percent a year, by one estimate; 1.5 percent, by another) and have not fallen at all in Brazil since the 1980s. Slow economic growth has been the culprit in both of these economies. Although the importance of economic growth for poverty reduction is not a new finding, it reinforces various past studies and casts doubt on the view held in some quarters that in today’s globalized world, economic growth no longer leads to poverty reduction.

Economic growth brought about higher wages, a movement to more productive and higher paying jobs, and a more educated labor force in each country we studied. Our data confirm the general hypothesis that the labor market plays a critical role in transmitting economic growth or responding to the lack of such growth. Furthermore, this relationship remained the same in the 1990s as in previous decades. Our analysis indicates that labor market conditions improved during economic growth and worsened during economic decline. The countries that had sustained rapid growth (Taiwan and Indonesia) had much more favorable results in their labor markets than the slower-growing countries (Costa Rica and Brazil). Unemployment rates typically fell during periods of economic growth, except when there was virtually full employment to begin with.

In times of economic decline, the labor markets responded with lower wages, a movement of workers back into less productive sectors and types of jobs, and higher unemployment rates. The recession of the 1990s had different impacts in different countries. The economic crisis that hit Indonesia affected the labor market mainly through a deterioration in wages; unemployment increased only slightly, considering the severity of the downturn. This was because Indonesia’s labor market was flexible—a flexibility that enabled many displaced workers to be absorbed into the agricultural sector.

The respective role played by the private and public sectors in employment was an important factor in the long-term economic mobility of the four countries. Of the four countries, Taiwan comes the closest to a non-dualistic labor market. There, the engine of growth in employment was the private sector. In Indonesia, most workers are employed in the
private sector, and the percentage of employees who worked as civil servants decreased. From these facts, we conclude that the private sector was the stimulator of employment growth in Indonesia. In Costa Rica, the public sector pays much higher wages than the private sector does (close to double). However, the private sector had higher rates of employment growth during the 1990s, thereby facilitating the upward mobility of the workers in the country. On the other hand, Brazil's public sector played a disproportionate role in the gains in the labor market. During the 1990s, public sector employment and earnings growth were both higher than the private sector, but the private sector remained the predominant employer in the country.

Returning to the controversy with which this chapter began, there are those who say that workers will participate in the growth process through heightened demand for labor by successful firms. Others argue the opposite: that nowadays, it is impossible to continue to progress in such a way, because fierce competition imposes incessant cost pressures on the labor market, preventing earnings from rising and poverty reduction from taking place.

These results deliver a clear verdict. We reaffirm the position that now, as before, economic growth is a critical means for improving employment and earning opportunities and thereby lowering poverty.

Before closing, we wish to raise a cautionary note. Let us not forget that although economic growth tends to benefit labor market conditions and reduce poverty overall, not every worker in a growing economy is expected to be better off. Even when economic growth is very fast, there will always be some workers who will lose their jobs or suffer declines in earnings and end up worse off. These people should not be ignored.
APPENDIX A: THE CASE OF TAIWAN (CHINA)

Source: All figures for Taiwan are based on authors' calculations, drawing on Taiwan's Manpower Utilization Surveys and Surveys of Family Income and Expenditure. Earlier years' figures were published in Fields (1984, 1985, 1994).

Figure 3A-1. Growth. (a) Level of Real GNP/Capita, 1970–2000 (NT dollars); (b) Growth of Real GNP/Capita, 1970–2000 (percent).

Figure 3A-2. Unemployment Rate, 1970–2000 (percent).
Fig 3.7.1.- Employee Compensation. (a) Average Employee as Percentage of Total Employment. 1970-2000

Figure 3A-4. Real Earnings: (a) Average Monthly Earnings of Employees in All Industries and Services, 1970-2000 (1980 NT dollars); (b) Average Monthly Earnings of Male and Female Employees in All Industries and Services, 1980-2000 (1980 NT dollars); (c) Average Monthly Earnings by Sector, 1980-2000 (1980 NT dollars); (d) Average Monthly Earnings of Public Sector Employees, 1980-2000 (1980 NT dollars); (e) Ratio of Public Sector Earnings to Total Earnings, 1980-2000 (ratio public/total).
Figure 3A-5. Poverty and Inequality. (a) Poverty Headcount Ratio, 1980–2000 (percent of households); (b) Gini Coefficient of Inequality, 1970–2000 (Gini coefficient of household disposable income).
APPENDIX B. THE CASE OF INDONESIA

Source: All figures for Indonesia are based on authors' calculations, drawing on the National Labor Force Survey (SAKERNAS), conducted by the Central Bureau of Statistics (BPS).

Figure 3B-1. Growth. (a) Level of Real GDP/Capita, 1976–99 (real GDP/capita); (b) Growth of Real GDP/Capita, 1976–99 (percent).

Figure 3B-2. Unemployment Rate, 1976–99 (percent).
Figure 3B-3. Employment Composition. (a) Agricultural Employment as a Percentage of Total Employment, 1976–99 (percent); (b) Wage and Salaried Employees as a Percentage of Total Employment, 1976–99 (percent); (c) Professional Employees as a Percentage of Total Employment, 1976–99 (percent); (d) Percentage of Employed Persons with Less than a Secondary Education, 1976–99 (percent); (e) Percentage of Employed Persons Who Are Civil Servants, 1976–99 (percent).
Figure 3B-4. Real Earnings. (a) Real Average Monthly Wage-net Salary of All Employees, 1990-99 (Rupiah); (b) Real Average Monthly Wage-net Salary of Employees by Gender, 1990-1999 (Rupiah); (c) Real Average Monthly Wage-net Salary of Employees by Main Industry, 1990-99 (Rupiah).
Figure 3B-5. Poverty and Inequality. (a) Poverty Headcount Ratio, 1976-99 (percent of population); (b) Gini Coefficient of Inequality, 1976-99 (Gini coefficient of expenditure).
APPENDIX C. THE CASE OF COSTA RICA

Source: All figures for Costa Rica are based on authors' calculations, drawing on statistical data obtained from the household survey in Costa Rica, first called the Encuesta Nacional de Hogares, Empleo y Desempleo and later the Encuesta de Hogares de Propósitos Múltiples.

Figure 3C-1. Growth. (a) Level of Real GDP/Capita, 1976–2000 (real GDP/capita); (b) Growth of Real GDP/Capita, 1976–2000 (real GDP/capita).

Figure 3C-2. Unemployment Rate, 1976–2000 (percent).
Figure 3.2: Employment Composition (a) Percentage of Total Employment in 1980-2000 (percent).


(b) Population 20-24 years old who have not completed Primary School: 1975-2000 (percent).

(c) Primary Enrolment: 1975-2000 (percent).


APPENDIX D. THE CASE OF BRAZIL

Source: All figures for Brazil are based on authors' calculations, drawing on data on labor markets and income distribution derived from the Pesquisa Nacional Por Amostra de Domicílios (PNAD).

Figure 3D-1. Growth. (a) Level of Real GDP/Capita, 1976–99 (real GDP/capita); (b) Growth of Real GDP/Capita, 1976–99 (percent).

Figure 3D-2. Unemployment Rate, 1976–99 (percent).
Figure 3D-4: Real Earnings. (a) Real Average Monthly Income of All Jobs of Employed Persons, 1985–99 (Reais); (b) Average Monthly Income of All Jobs of Employed Persons by Gender, 1985–99 (Reais); (c) Real Earnings of Employed People by the Public, Private, and Informal Sectors, 1981–99 (index of earnings); (d) Real Average Monthly Income of All Jobs of Employed Persons by Sector, 1979–99 (Reais).
Figure 3D-5. Poverty and Inequality. (a) Poverty Headcount Ratio, 1979–99 (headcount ratio); (b) Gini Coefficient of Inequality, 1981–99 (Gini coefficient of income).

Note: "PNAD" data present the Gini coefficient of monthly income of all jobs for employed persons 10 years of age and older who have work income. "Székely" data present the Gini coefficient of household per capita income.

REFERENCES


1. The Role of the Private Sector: Studies and Evidence


Szekely, Miguel. 2001. "The 1990s in Latin America: Another Decade of Persistent Inequality, but with Somewhat Lower Poverty." Inter-American Development Bank, Washington, D.C.


NOTES

*The authors thank Guy Pfeffermann, William Maloney, and Carol Graham for helpful comments on an earlier draft.

1Inequality is another thing, however. Research on growth and inequality has clearly shown that there is no pattern, and that inequality increases with economic growth as often as it decreases (Fields 2001).

Fifty years of scrutiny have not yielded a verdict on the character of the informal self-employed sector. One perspective, articulated most sharply by the International Labor Organization (2002), views the sector as having a deficit of "decent" work—"decent" encompassing the state of being unprotected and unrepresented by formal labor institutions. In fact, enough unsavory qualities are rumored about the informal sector to invite not only criticisms about its decency, but condemnations as a full-fledged poverty trap. Critics point to higher levels of poverty, lower incomes adjusted for human capital, lower rates of productivity growth of informal firms, and more volatile incomes—which, combined with a lack of labor protections, suggests that the sector is more precarious.

But there has also been a parallel tradition, beginning with Keith Hart's (1972) early work on Kenya, that stressed the entrepreneurial dynamism of the sector and the fact that many choose to be there. The essentially entrepreneurial spirit of the smallest enterprises—their willingness to take risks, to be their own bosses, to stake their own resources, human and capital—has led the smallest firms to be dubbed "microenterprises" and their owner-operators "microentrepreneurs." The recognition that a relatively well-off entrepreneurial group coexists with those involuntarily informal led to Gary Fields' (1990) division of the sector into an "upper tier" and a "lower tier." However, there remains no consensus on how many enterprises are found in each tier.

The issue is complicated by the fact that the two scenarios necessarily have very different implications about the magnitude of distortions in the formal sector labor market. If those in the informal sector are unequivocally worse off than those in the formal sector, this is only consistent with their being the disadvantaged sector of
a labor market segmented by labor market rigidities—rigidities that ration workers out of better formal sector jobs. The inefficiencies implicit in an involuntary self-employment rate of 50 percent are so large as to make a very strong case for reforming existing formal sector protections, not for extending them to the rest of the economy. On the other hand, accepting for the moment the other extreme that everybody in the sector is voluntarily an entrepreneur, then the evidence is less compelling of the need for massive labor reform—but also that informal jobs are somehow less decent. They may offer a different package of qualities, including degree and modality of protection, but they are no less desirable than a formal sector job.

I will argue that the second view is closer to the truth and that the sector should be seen as a relatively desirable entrepreneurial sector that at the margin offers poor workers jobs as "decent" as those they could get in the formal sector. More fundamentally, there is nothing intrinsically inferior about self-employment. The characteristics that make self-employment attractive in the industrialized countries—flexibility, being one's own boss, the possibility to do better on one's own, freedom from mind-numbing assembly lines, greater ease in balancing family and work—appeal in developing countries as much as they do in the industrialized world. David G. Blanchflower (2000), for example, finds that 50 percent of U.S. workers would prefer to be their own bosses. Of those who transition between formal salaried employment and informal self-employment in Mexico, 66 percent report the desire for greater independence or higher earnings (Maloney 1998). Further, most of the characteristics used to define the informal sector as disadvantaged can be derived from standard economic theory, without any recourse to distortions or segmentation—or any insinuation of inferiority or, in the end, a poverty trap.

Viewed this way, work in informal self-employment can provide a package of benefits—including independence and flexibility—that is roughly comparable to the package that salaried workers with formal protections receive. This also requires shifting the conception of informality away from "lacking the labor market protections that they want" to "choosing not to participate in many dimensions of civil society": notably, governmental programs such as social security (including pensions and health care), the legal system, the banking system, health inspection, firm censuses, trade organizations, or civic organizations. While for current purposes these are observationally equivalent, this implies that "decent" work may not imply formally "protected" work. My overall view is consistent with the fact that there is little evidence of labor market distortions of the magnitudes necessary to create such a large volume of involuntary self-employment.

This still leaves the question of just why it is that the self-employment sector is so large in so many developing countries and transition economies.

WHAT EXPLAINS THE LARGE SELF-EMPLOYMENT SECTOR IN DEVELOPING COUNTRIES?

Figure 4-1 plots the share of labor forces around the world that are self-employed against formal sector labor productivity in the mid-1990s. What is most striking is a clear downward sloping, log-linear relationship, with the poorest Latin American
countries having the largest sectors, middle-income countries such as Korea, Greece, and Turkey in the middle, and all the industrialized OECD countries having very small sectors. The Eastern bloc countries, Czech Republic, Hungary, and Poland, are notable outliers, with unusually small self-employed sectors. Preliminary evidence puts Ethiopia around Bolivia, Zimbabwe around Honduras, and the Philippines around Ecuador.

To explain this pattern in a traditional dualistic framework would require that poorer countries have progressively more labor market distortion. As I'll argue, this is probably not plausible. Instead, let me put together a view that assumes first, no distortions, and second, as argued above, that there is nothing intrinsically inferior about self-employment. However, labor productivity, and hence wages in the salaried sector in poor countries, almost by definition are lower than in rich countries. This means that the opportunity cost of being self-employed is far lower and more workers would be indifferent to being self-employed as opposed to being salaried.2

Figure 4-2 presents offers a very simple view of a labor market that can help explain the downward-sloping pattern. The two labor demand curves (the marginal product of labor in each sector times the product price) are rotated to face each other. The X-axis represents the total stock of labor. We can think of the informal sector "demand" curve as capturing the effect that, when wages are very low, there is sufficient demand to support a newspaper stand or food kiosk, a photocopy shop or shoe repair shop on every block. As wages rise, the cost of these services rises and they eventually get
agglomerated into more centrally located larger stores that are viable at the higher wage. In the absence of any labor market distortions, wages in both sectors are equalized and labor is allocated at the intersection of the two demand curves.

As countries develop—crudely conceived of as a rise in salaried sector labor productivity—the demand curve for salaried workers shifts out, the opportunity cost of being self-employed rises, and the very small shop is no longer profitable. Workers are drawn into the formal sector, and the share of self-employment in the overall work force falls. However, to get the relationship in Figure 4-1, it must be the case that productivity rises less in the self-employed sector, so that countervailing movements in its demand curve will not, again, increase the demand for labor there. Most observers of the sector would find this plausible, but there is a non-pathological reason why this is so: most self-employment is in the service sector and productivity tends to grow less there. Figure 4-3 presents Bela Balassa’s (1964) estimates of productivity growth in the industrial sectors as compared to the services sector for the United States, Belgium, Germany, Italy, the Netherlands, the United Kingdom, and Japan in the middle of the 20th century. In every case, industry is characterized by higher rates of productivity growth than the service sector: on average, 1.7 times more. It is not so surprising that the service sector in developing countries would show a similar pattern. This in no way implies, however, that somehow entrepreneurs in the self-employed sector are somehow disadvantaged by these lower productivity growth rates over the longer term. Since wages are equalized between sectors, they benefit from
productivity growth in the industrial "formal" sector. Of course, if we assume that productivity in the informal service sector does not change, then the price of the service must somehow rise to reflect higher labor costs. To translate this relationship into practical terms: It still takes my barber 20 minutes to cut my hair, but now I have to pay him more since the opportunity cost of his time in the industrial sector is higher. This is precisely why haircuts, gardeners, nannies, and all manner of non-traded services are cheaper in the developing world: productivity is lower in the tradable/formal sector. Those familiar with the international economics literature will recognize this as Balassa's model of why the real exchange rate, defined as the price of non-tradables over tradables, should appreciate with development. All I have done is argue that broadly speaking, the informal self-employed are in non-tradable service sectors and the formal salaried are more likely to be in tradable industries.

At about this point, my African colleagues tend to take issue with my argument that workers are choosing among sectors. Effectively, they argue that there is no formal sector not to choose. But two points are important to make here. First, within the context of Figure 4-2, what they are saying is that the salaried demand curve is shifted so far over to the right that for most workers there simply is no option. This does not fundamentally affect the argument: there is a formal employment sector, however small, and at the margin workers are indifferent to working there or in self-employment if there are no wage rigidities. But the second point to emphasize is that to say that workers are "indifferent," or that they "choose" self-employment, does not mean that they are not poor or miserable. It simply implies that the marginal formal sector worker is equally poor and miserable; jobs in the two sectors are equally indecent. Very poor countries have very poor jobs in most sectors.

**Why the Labor Market Distortion View Is Not Plausible**

To be consistent with Figure 4-1, the view that the informal are relatively disadvantaged would have to argue that poorer countries have more distorted labor markets
than rich ones, and hence that they have a larger share of their work force rationed out of more desirable formal sector employment. Let's first be clear on how large these distortions would be. Labor demand estimates for formal sector workers tend to show a wage elasticity of somewhere around 0.5: a 1 percent rise in wages due to a distortion will lead to 0.5 percent fall in formal sector employment. To ration 25 percent of Mexico’s labor force into self-employment compared to, for instance, Luxembourg’s level of 5 percent, wages would have to rise above market clearing by 40 percent: even more if we add those who work for the self-employed, the informal salaried.

These are very significant distortions and they lead to some pretty striking anomalies. The Spanish have a labor market that is legendary for its rigidities, yet the difference between its self-employment share and that of the United States is relatively small. Further, it does not seem possible that less developed countries (LDCs) ranging from Korea to Turkey to Mexico are simply vastly more distorted than Spain. In many LDCs, including Mexico, the usual culprits never showed up at the scene of the crime. As Linda Bell (1994) and Enrique Davila Capalleja (1994) show, minimum wages are not especially binding in the formal sector in Mexico. This is confirmed by Figure 4-4,
which show that minimum wages can be distortionary among workers in the formal sector, as they are to some degree in Brazil and Chile. However, in Argentina and Mexico they are not, and both countries have a high share of self-employed.4

Further, recent work by John Pencavel (1997) suggests that unions in less developing countries tend to be more focused on creating employment than raising wages. Continuing the focus on Mexico, my colleague Eduardo Ribeiro and I (Maloney and Ribeiro 1999) concur, finding no impact of union concentration on wages, but substantial “featherbedding” effects in the manufacturing sector. So, if there are no minimum wage distortions and no union effects, where are the distortions coming from? It could be argued that non-wage costs are simply very high. But in the absence of nominal wage rigidities, these costs are passed down to workers and should not cause rationing. This is not to argue that there are not many distortions in LDC labor markets, only that there is at least one LDC with a very large self-employed sector where labor market rigidities are not a credible cause, and hence something else must be going on.

Finally, how do we explain the exceptionally low share of self-employment in Poland, Czech Republic, and Hungary? Figure 4-5 accepts my argument above and strips out the effect of formal sector productivity by regressing the self-employment share on productivity and then plotting the residuals as a measure of deviation from trend. Formal sector productivity, and hence the trend in Figure 4-1, emerge as statistically significant at the 5 percent level. The residuals could be considered measures of labor market distortion, given that Spain and Argentina both have their rightful place

![Residuals with East Europe Dummy](Image)

**Figure 4-5. Degree of Labor Market Distortions.**

Note: Y-axis plots residuals of regression of self-employment on salaried productivity and demographic variables as measure of unexplained self-employment perhaps owing to labor market distortions.

Source: Author’s calculations.
as relatively distorted markets and Mexico and the United States stand as examples of relatively flexible markets. But the Eastern European countries are clearly so off trend that it was necessary to include a regional dummy, which is then added to the residual. But strikingly, labor markets in the former workers' paradise of Eastern Europe appear to be vastly more flexible than those of either Latin America or Asia. This seems implausible, given both history and the fact that open employment was so high during this period. An alternate explanation might be that self-employment is fundamentally a manifestation of individual entrepreneurship that was stifled in the Communist system. My guess is that as markets of all types function better in the former Eastern bloc, more workers will start their own businesses, and self-employment will rise toward trend, rather than wither away.

INFORMALITY AND UNPROTECTEDNESS: DISADVANTAGE OR CHOICE?

However implausible the distortion view is as an explanation of the large size of the self-employed sector, we are still faced with the fact that, by definition, those in the informal self-employed sector are not covered by benefits; that some studies find their earnings to be below that of formal sector workers, even accounting for differences in skills; and that their earnings are often more volatile. All these characteristics have led to a conception of the sector as being “precarious” and undesirable and hence, a source of indecent work, or a poverty trap. On all counts, such inference is probably unwarranted. Each characteristic can be shown to have a more benign interpretation consistent with the sector’s being a primarily desirable entrepreneurial sector.

Protection and Benefits

To begin, there are good reasons why workers may prefer informal jobs, particularly self-employment, despite the ostensibly very large benefits of being formally employed. We need to modify Figure 4-2 so that it is not wages but the value of the total package of job qualities—wages, benefits, independence, and so on—that is equalized. This reminds us that labor protections, as the proverbial lunch, are not free. Workers often pay for them explicitly in deductions from salary and, implicitly, as lower equilibrium wages. Should the value of benefits to the worker fall below the implicit tax, it would be preferable to move into the informal sector, where payment is entirely monetary. A key difference between LDCs and industrialized countries is that incomplete regulation of the labor market and small firm sector gives some entrepreneurs and employees exactly this choice of how to receive payment.

Several possible sources of such a wedge appear both in the nature of the labor protections system and in interviews with workers in Mexico. First, whenever an alternative source of protection emerges at lower cost, there is an incentive to become informal. Often an entire family is covered by medical benefits when any one member is formally employed, so the marginal value of benefits to the second formal sector worker is zero. More generally, informal support networks can substitute for unemployment insurance or retirement funds at lower cost. This is, of course, much more difficult with medical coverage, but many countries provide minimum levels not linked to formal sector employment that provide some coverage, albeit incomplete.
Second, the quality of many services in LDCs is often poor and administrative overhead costs are very high, causing some workers to see mandatory contributions to benefits programs as a disadvantage of formal salaried work. It is entirely plausible to imagine a microentrepreneur, perhaps faced with borrowing constraints to expand a business, being reluctant to hand over current resources to a government of dubious trustworthiness for a promise of an old-age payment in the distant future. At worst, it is throwing money away, as with the recent raiding of pension funds by the Argentine government to finance the fiscal deficit; at best, it may have a very high liquidity cost, especially if other informal arrangements are available. The latter is suggested by the work on Chile by Abigail Barr and Truman Packard (2002) and Packard (2002), who find that participation in the government’s voluntary pension scheme, a private individual account scheme with no redistributive dimension, is extraordinarily low, at around 4 percent. This suggests that these entrepreneurs are choosing to be “unprotected” by a scheme that arguably best aligns costs and benefits.

Again, none of these arguments is particular to LDCs. American teenagers will take temporary jobs without health benefits and remained covered on their father’s plan. It is not at all unusual to find U.S. citizens who, given the choice, would forgo the protection offered by the Social Security Administration and invest their money differently. We may imagine that those formally covered by the pension and severance programs of Enron or many other troubled American companies might have preferred, with the benefit of hindsight, to have taken home a higher wage and made their own arrangements.

Finally, protection is a continuum. The wage distributions in Figure 4-5 show that the big action of minimum wages is, in fact, among salaried workers in informal firms. This “lighthouse” effect, as it is called in Brazil, suggests that there are norms on level of pay that informal employers follow even if, for any of the reasons above, they do not register their workers with social security administrations. This phenomenon is consistent less with the informal sector’s being denied protections as with offering alternative combinations of characteristics that may be desirable, such as training, payments in kind, and flexibility in hours worked.

Wages and Poverty

The fact is that many of the informal self-employed are poor. But it is not at all clear in which direction this causality runs. Poorly educated workers more generally are those in informal self-employment and those same workers are likely to be found at the bottom of the income distribution. But, by analogy to Figure 4-1, the correlation could be driven by the fact that these poor workers have a low opportunity cost of being self-employed and hence choose it more often as the better employment option.

Perhaps the principal objection to this line of reasoning will be that often wage comparisons that take account of levels of education and experience have found higher earnings in the formal sector and that this suggests the inferiority of self-employment and labor market segmentation. This is not at all a uniform finding (Marcoulier, de Castilla, and Woodruff 1999; Maloney 1998). But more importantly, the interpretation of earnings differentials is not at all straightforward; it would be
better for the literature to search for evidence in less well-lit but more promising locales.

First, the specific characteristics of work that pertain to or even define the formal and informal sectors affect earnings in each sector and make it unclear what the magnitude or sign of the differential should be, even in an unsegmented market. In a market with no distortions, the wage in the informal sector should rise above that in the formal sector to compensate for the expected value of benefits received by formal sector workers.

Similarly, formal sector workers would require compensation for taxation that informal sector workers may avoid. Formal salaried work and informal self-employment may also differ in hours worked, degree of risk, lifestyle, and costs of capital invested that may further drive a wedge between reported wages. In the absence of information on these factors, the magnitude of the distortion-free differential cannot be known a priori and the interpretation of the raw wage differentials reported in previous studies as evidence of segmentation becomes less clear.

A more promising avenue to establish whether the overall package of earnings and characteristics in the informal sector is competitive with that in the formal sector, followed by Norbert Fiess, Marco Fugazza, and William Maloney (2001), is to examine the co-movement of relative sector sizes and earnings. A dualistic view of the sector would predict that as formal sector wages are forced artificially above market clearing, workers should be rationed into informal self-employment, causing the size of the formal sector relative to the informal self-employed sector to fall; relative earnings and sector size should move against each other. Figure 4-6 plots a times-series of the relative

![Figure 4-6](image)

**Figure 4-6.** Relative Sector Sizes and Wages of the Formal Salaried and Self-Employed Sectors in Mexico, 1987-92.

wage and relative sector sizes for formal salaried wages relative to informal self-employed in Mexico for the period after trade liberalization and before the tequila crisis, 1987–92. What is striking is that informal self-employment expands dramatically in the first three years and reaches its peak in 1990, as unemployment hits its lowest level in a decade (Table 4-1).

This movement is partly due, as Figure 4-7 suggests, to more workers leaving formal employment for self-employment than the reverse. The transition probabilities standardized by terminal sector size \( \frac{P_{ij}}{P_j} \) rise in both directions with increased economic activity, but more in the direction of self-employment. This might result from workers being laid off due to trade liberalization, were it not that relative earnings move together with relative sector size, as Figure 4-6 shows—not against, as the dualistic view would predict. Overall, rather than a unidirectional flow back into formal

<table>
<thead>
<tr>
<th>Year</th>
<th>U</th>
<th>Year</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>6.8</td>
<td>1986</td>
<td>4.3</td>
</tr>
<tr>
<td>1977</td>
<td>8.1</td>
<td>1987</td>
<td>3.9</td>
</tr>
<tr>
<td>1978</td>
<td>6.8</td>
<td>1988</td>
<td>3.6</td>
</tr>
<tr>
<td>1979</td>
<td>5.7</td>
<td>1989</td>
<td>3.0</td>
</tr>
<tr>
<td>1980</td>
<td>4.6</td>
<td>1990</td>
<td>2.8</td>
</tr>
<tr>
<td>1981</td>
<td>4.2</td>
<td>1991</td>
<td>2.6</td>
</tr>
<tr>
<td>1982</td>
<td>4.2</td>
<td>1992</td>
<td>2.8</td>
</tr>
<tr>
<td>1983</td>
<td>6.3</td>
<td>1993</td>
<td>3.4</td>
</tr>
<tr>
<td>1984</td>
<td>5.7</td>
<td>1994</td>
<td>3.6</td>
</tr>
<tr>
<td>1985</td>
<td>4.3</td>
<td>1995</td>
<td>6.4*</td>
</tr>
</tbody>
</table>

*Provisional. Indicadores Economicos, Banco de Mexico.

Figure 4-7. Transition to and from the Formal Sector and Informal Self-Employment in Mexico, 1987–92.
sector employment with economic recovery, there appears to be accelerated rematching across all sectors as workers search all sectors for better opportunities, but with relatively more workers flowing toward the relatively higher earnings in self employment. This makes sense, particularly given the substantial boom in non-tradables construction and services that occurred following trade and capital account liberalization, and that offered new opportunities for microentrepreneurship.

Precariousness?

Many of the characteristics associated with informality are, in fact, natural by-products of the fact that the informal self-employed person is fundamentally a micro-entrepreneur—the owner of a small firm. The industrialized country literature on firm behavior offers two important findings about such firms. First, there is a wide range of sizes among longstanding firms, determined by such factors as how efficient or hardworking an entrepreneur is, how well placed his/her firm is, or what the logic of the production process is. This means that the existence of many small firms does not necessarily imply failure of either labor or credit markets. It may be that the reason that 80 percent of micro-firms in Mexico have only one or two employees and tend to be family-based reflects a logic that has roots in the tradition of the family farm, or reflects the sustainable reach of informal contracting relations. This could explain, for instance, the finding that only 10 percent of urban Mexican micro-firms report plans for expansion and only 9 percent report that lack of credit is a major business problem.

A second finding about small firms everywhere is their extraordinarily high rates of failure. Seeking to explain the U.S. case, Boyan Jovanovic (1982) argues that this is due to the fact that entrepreneurs cannot know how good their location is or how good an entrepreneur they are until they actually start the business. Very soon after starting, many find that they are not viable and fail. That said, rough calculations from the Mexican micro-enterprise survey suggest that these firms show high failure rates, but not particularly higher than those in the United States. Further, the high variances of income also appear among self-employed everywhere.

Taking these two factors together—smaller firms are likely to be either those that have higher costs and hence appear to have lower productivity, or those starting out—we are observing both potential winners, but also very low-productivity losers. Hence, small firms may show lower productivity than formal sector firms in the same business. But the relevant comparison is not this, but rather whether the entrepreneur is better or worse off than in the marginal formal sector job.

If we add a new view of "formality" to this picture, we can generate most of the characteristics of the sector, but without implying any inferiority or undesired precariousness. Alec Levenson and Maloney (1998) treat "formality" as participation in the numerous institutions of civil society, such as government-backed pensions and health care, the legal and banking systems, or trade and civic organizations. These, of course, have costs in terms of compliance with legal norms, including taxes, which very small firms can choose to avoid in many developing countries. Small firms are anchored in social networks of family and immediate neighborhood that allow them to enforce implicit contracts, insure against risks, and so on, and participation in the
4. Informal Self-Employment: Poverty Trap or Decent Alternative? 77

formal institutions of civil society is needlessly expensive. However, as firms grow, they increasingly need to secure property rights or permit formal contracting mechanisms, pool risk, gain access to credit. Hernando de Soto (1989) offers a striking example of informal street vendors in Peru, who tried not to avoid but to pay their taxes, since this would guarantee them some property rights over their pitch and hence offer some security for investments they wanted to make. Statistically, the data from the Mexican microenterprise survey suggest that firms do become more formal with age and size. Combining the two characteristics of micro-firms and our notion of formality implies that small firms will have higher costs, are likely to be informal, and will have very high failure rates. Though this corresponds exactly to the standard picture of the stagnant, precarious, unproductive, unprotected informal worker familiar in the literature, it is, in fact, the opposite. It emerges naturally from the workers trying their luck at entrepreneurship (risk-taking), often failing, and not engaging in the formal institutions until they grow. In sum, there may be nothing pathological about informal self-employment, and to recover the general sense of the word, nothing obviously less decent either.

Mercedes Gonzalez de la Rocha (1994) provides a compelling explanation of the life-cycle pattern discussed earlier based on the household’s capacity to manage these risks. Her interviews show that the heads of young families are more likely to be found in manufacturing, while heads of “consolidated” households can move into less onerous but more risky informal service jobs precisely because their mature children provide a hedge against the risk. Further, J. Balán, H. L. Browning, and E. Jelin (1973) argue that it is common for workers who are contemplating opening a firm to maintain their formal sector job until the microenterprise is safely established, perhaps staffed by the wife or mature children, thereby effectively maintaining a diversified portfolio of income streams. In sum, for workers desiring to become self-employed, there are informal strategies for managing risk.

Heterogeneity in the Sector: How Much of Self-Employment Is Involuntary?

In fact, as Fields pointed out, the sector is very heterogeneous; none of the above implies that there are not involuntary workers in the sector. In fact, there is evidence of queuing to enter the formal sector. Using a series of household panels that allow us to follow workers across time, we can formalize the graphical relationship between higher earnings and transitions into informal self-employment, as well as test for rationing. To do this, we recast J. M. Abowd and H. S. Farber’s (1982) test for union-induced segmentation in a time-series context. At a given moment in time, a worker in current sector “c” will desire to switch to an alternate sector “a” if he expects a gain in utility, which is a function both of wage and of non-wage benefits of working in the sector. Since many of these factors—indeed, medical insurance, or other labor protections—are not pegged to the wages, these effects are assumed to be constant across time, leaving the differential rates of growth of the two wages as determining the relative desirability of each sector. Together, the desire to enter the alternate sector is:

\[ Y_{it} = \alpha_{it} W_{at} - \alpha_{it} W_{at} - \gamma F_{at} + \epsilon_{it}, \]
\[ \epsilon_{it} = (\epsilon_{it} - \epsilon_{it}). \]
where $\gamma F_{nc}$ is the unchanging utility arising from differing non-wage benefits between sectors and $\hat{W}_a$, $\hat{W}_r$ are the forecasted values from the standard Mincerian earning equation:

$$\hat{W}_a = X\beta_a + \epsilon_a$$
$$\hat{W}_r = X\beta_r + \epsilon_r$$

where $X$ is a vector of worker characteristics. This permits proxying for the unobserved alternate wage and avoiding bias in the estimates of $\alpha_c$. The time subscript on $\beta$ reflects the fact that across time, similar worker characteristics may lead to different wages offered in each sector. This may result from any number of other structural or temporal factors, including the level of economic activity.

This equation, however, yields only the unobserved desire to move, which may be thwarted by any factor causing queuing or that affects the probability of being offered a job in the new sector, once one desires to seek it. Since the unemployed are by definition those looking for or unable to find jobs, this probability of being offered a job is a function of the state of the labor market, $\mu$.

$$Y_{2t} = \lambda \mu + \epsilon_{2t}$$

Particularly during cyclical downturns, the informal sector is generally posited to serve as the reserve army of those unable, although willing, to take a job in the formal sector. The unobserved latent variable $Y_2$ determines whether or not a worker is selected from the queue, a queue that may be of zero length in a period of high economic activity. The probability that an individual will be observed in, for example, the alternate sector is the probability that the worker desires to work in that sector (is in the queue) and is selected:

$$p_a = \Pr[e_1 > \alpha_a \hat{W}_a - \gamma F_{nc}, e_2 > \lambda \mu]$$

which constitutes a partially observable bivariate probit model. The regressions in the following column constrain $\alpha_a = -\alpha_r$: a 1 percent rise in the alternate wage is assumed to have the same effect as a 1 percent decline in the initial wage.

The probability of entering the formal sector rises with the formal sector wage, and significantly so, and falls with the rise in the initial sector earnings, although not significantly. Constraining the coefficients to be symmetric leads to the relative wage being statistically significant. Again, this is consistent with workers choosing between the two sectors based on the relative returns in each; it is not consistent with the self-employed sector being an inferior sector that workers seek to escape. However, the cyclical variable enters significantly and negatively in both specifications, suggesting that there is queuing to enter the formal sector that is exacerbated by cyclical downturns.
Table 4-2 Determinants of Probabilities of Transition across Five Quarters, 1987–93 (partially observed bivariate probit)

<table>
<thead>
<tr>
<th>Initial/final</th>
<th>Self-employed</th>
<th>Formal salaried</th>
</tr>
</thead>
<tbody>
<tr>
<td>Const 1</td>
<td>45.15* (12.42)</td>
<td>5.21** (1.80)</td>
</tr>
<tr>
<td>$\hat{W}_1$</td>
<td>-3.85 (2.53)</td>
<td></td>
</tr>
<tr>
<td>$\hat{W}_2$</td>
<td>9.38* (2.66)</td>
<td></td>
</tr>
<tr>
<td>$\hat{W}_2 - \hat{W}_1$</td>
<td></td>
<td>12.7** (5.00)</td>
</tr>
<tr>
<td>Const 2</td>
<td>-0.63* (0.09)</td>
<td>-0.61** (0.10)</td>
</tr>
<tr>
<td>Unem</td>
<td>-0.21* (0.03)</td>
<td>-0.22** (0.03)</td>
</tr>
<tr>
<td>N of observations</td>
<td>21,831</td>
<td>21,831</td>
</tr>
<tr>
<td>Likelihood</td>
<td>-7,610</td>
<td>-7,617</td>
</tr>
<tr>
<td>Chi-squared</td>
<td>64.18*</td>
<td>50.38**</td>
</tr>
</tbody>
</table>

Notes: Worker transitions among sectors across five-quarter period using overlapping panels from 1987–93, Mexican National Survey of Unemployment. $\hat{W}_1, \hat{W}_2$ are forecasts of initial and alternate sector wages in logs. $\hat{W}_2 - \hat{W}_1$ constrains coefficients equal and opposite. Unem is average unemployment rate across period. Partially observed probit regressions contain two constants, one for inclination to move equation, and one for queuing equation. Standard errors in (), * = significant at 10 percent, ** at 5 percent.
Source: Author's calculations.

So, what fraction is in the sector because they cannot get formal jobs and what fraction is there because they are at worst indifferent between sectors and may actually want to be informal? Recall my earlier argument with reference to the downward-sloping relationship between development and share in the work force: the more convincing driving factor there was, the increasing attractiveness of formal sector employment over time, rather than more distorted labor markets in LDCs. More specifically, in Mexico, there is very little evidence of the kinds of labor market rigidities that would ration workers out of formal sector jobs and create the very large informal sector. In fact, motivation survey data from Mexico suggested that of those who had transitioned from formal salaried firms to informal firms, roughly 70 percent stated that they entered the sector for more flexibility and higher earnings. The remainder were involuntarily there for a variety of other reasons, one of which was losing their previous formal sector job. But this does not in itself imply greatly distorted labor markets. Roughly 30 percent of job transitions in the relatively flexible United States are involuntary too, and hence a survey of micro-enterprises there might generate similar results.

Of course, such response data must always be suspect. Wendy Cunningham and Maloney (2001) therefore sought to test explicitly for upper and lower tiers. We argue that if, in fact, there are two types of firms with distinctive modes of operation and dynamics, we might expect the observed distribution of conditional earnings to be comprised of two underlying distributions corresponding to the inferior and superior subsectors:

$$F \sim p N(\mu_1, \sigma_1^2) + (1 - p) N(\mu_2, \sigma_2^2)$$

where $F$ is a combination of two distributions of mean and variance $\sigma^2$ weighted by the share of the sector in each distribution, $p, (1 - p)$.
to go into the sector might be expected to be better prepared or intrinsically more able to run a business, while those who are thrown involuntarily in the sector and are in a holding pattern might be expected to do worse. In fact, I had found that workers voluntarily transiting into self-employment from formal salaried work earned roughly 15 percent more than previously, but those who enter the self-employment involuntary earned roughly 5 percent less (Maloney 1999).

We first generated standardized earnings after controlling for potential experience, education, their interaction, hours worked by all employees, and capital stock. Using the EM algorithm, we maximized the likelihood across both means, standard deviations, and the weighting on each distribution, the share of the population found in each segment, \( p, (1 - p) \). The single distribution was rejected, supporting a two-tier view, but the share of the population found in the "lower" tier was only 13 percent of the sample. This is in the ballpark of the 30 percent reporting involuntary entry into the sector. Thus Gary Fields was right—but most informal entrepreneurs seem to be in the upper tier.

**CONCLUSION**

A variety of evidence—surveys with entrepreneurs, field studies, and cross-country data—as well as the economic models presented here, support the view that informal entrepreneurship can be a viable, and even a desirable, alternative to formal sector salaried work. The majority of the sector should probably be viewed as a collection of small businesses with all the usual accompanying characteristics: high failure rates and a high variance of incomes, but also an opportunity for independence and an outlet for entrepreneurial energies.

This raises some questions about the meaning of "decent" work, defined as coverage by formal labor protections. To the degree that workers are voluntarily leaving formal sector jobs and entering self-employment without labor protections, they must choosing a work situation which makes them better off. This suggests that informal entrepreneurs may have other means to deal with many of the risks of entrepreneurship, and to the degree that they do not, they still find the overall package of informal self-employment preferable—due, in part, to the inefficiencies in formal sector institutions. The challenge for governments is to design a comprehensive system of protections that do not displace efficient informal mechanisms or dampen the potential for growth and poverty reduction of the sector.

**REFERENCES**


NOTES

*My thanks to Gary Fields for helpful comments and to Gabriel Montes for helpful research assistance. Research was partially financed by the Regional Studies Program of the Latin American and Caribbean Region of the World Bank. Needless to say, the opinions are mine alone and do not necessarily reflect those of the institution.

For purposes of this chapter, I will use the common definition of informal self-employed as those in firms with fewer than six workers, who are not affiliated with labor institutions such as social security. In practice, most firms of this size have at most one employee and are not registered with social security.

This argument will change only slightly if we allow the returns to self-employment to differ in rich and poor countries. All we need is that productivity grows faster in the salaried sector across the development process. In this case, the formal sector productivity variable on the X-axis should be seen as a proxy for the relative formal/self-employed productivity level.

See Fajnzylber and Maloney (2000) for a partial review.

See Maloney and Núñez (2001) for a more complete discussion.


The sociology literature provides striking confirmation of this insight. Balán, Browning, and Jelin (1973: 216–17) argue that although self-employment is a goal for many Mexican workers: "Becoming self-employed involves a large risk, especially for those men who had stable and secure jobs. Income is uncertain, in particular during the first perilous years of the business. Often the men lack the financial and administrative skills needed for successful operation of the enterprise. Most men are aware of the fact that many small shops and stores close soon after opening. Some men therefore proceed with much care when they decide to become self-employed." Another informative discussion of the Mexican case is found in Peter Gregory (1986).

See Wodon, Maloney, and Barenstein (1998).


For general discussion in the industrialized country literature of the impact of trade unions on turnover, see, for example, Farber (1980) and Freeman (1984).

Replacing only the unobserved alternate wage with the forecasted variable but using the realized current wage has the potential to bias α, since, α is likely to be correlated with $\tilde{W}_t$. For this reason, both wages are replaced with the forecasted values.

In an estimation of the probit specifications, the forecasted wages are generated by regressing sector by sector, the wage observed on education, experience, education squared, and experience squared for each trimester, and then generating predicted values for workers in all other sectors. Each worker therefore has a predicted wage in all four sectors. Since the constant term and coefficient values are permitted to vary in each time period, they capture any temporally varying factors including cyclical movements. Were unemployment the only temporally variant element, it would not be possible to identify the relations above. But in practice, the individual wages and wage differentials and unemployment are only loosely correlated (\( \Delta = 0.25 \)).

A comparison of the likelihoods to test against the null that the data are drawn from a single normal distribution rejected the single distribution.
Part II. The Private Sector at Work:
Cases from Around the World
5. Generating Upward Mobility:
The Case of Korea and Private Sector Development

SE-IL PARK

GENERATING UPWARD MOBILITY: ITS CAUSES AND LIMITS

Employment creation is the best way to achieve growth and equity at the same time: namely, "shared growth." Yet it is not the sheer number of jobs, but the quality of newly created jobs, that is most important in the development process. Simply put, what matters is the number of good jobs created. Good jobs imply high-productivity, high-paying jobs with the possibility of promotion. In this regard, and in its particular path of private sector-led development, Korea has abundant lessons to offer.

In the past four decades, Korea has achieved truly impressive growth and, at the same time, substantial improvements in living standards (Table 5-1). High upward mobility has been accompanied by the rapid creation of productive employment, sharp rises in real wages, a dramatic reduction of absolute poverty (Appendix A), and moderate decreases in income inequality (Appendix B).

The major mechanism of growth in living standards (or upward mobility) has been through employment creation. What has been impressive has been not only the quantitative expansion of employment opportunities (the number of jobs), but also the qualitative improvement of employment (the number of good jobs).

By any number of measures, the creation of good jobs has been substantial in Korea in the past four decades (Figure 5-1). First, the share of agricultural employment has dropped sharply: from 63 percent of total employment in 1963 to about 11 percent by 2000. Meanwhile, non-farm employment expanded at an average rate of 5.4 percent per year. Specifically, the share of wage and salary employees as a percentage of total employment—an indicator of industrialization as well as quality of employment—has
Table 5-1 Major Indicators of Korean Economic Growth, 1962-2000

<table>
<thead>
<tr>
<th>Indicator</th>
<th>1962</th>
<th>1979</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNP (1990 constant price, billion Won)</td>
<td>17,583</td>
<td>71,590</td>
<td>277,313</td>
</tr>
<tr>
<td>Per capita GNI (US$ in current prices)</td>
<td>87</td>
<td>1,636</td>
<td>9,628</td>
</tr>
<tr>
<td>GDP BY INDUSTRIAL ORIGIN (% SHARE IN CURRENT PRICES)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture and forestry and fishing</td>
<td>36.7</td>
<td>22.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Manufacturing and mining</td>
<td>13.1</td>
<td>24.1</td>
<td>31.8</td>
</tr>
<tr>
<td>Electricity, gas, water, construction, transport, communication</td>
<td>11.0</td>
<td>18.6</td>
<td>17.3</td>
</tr>
<tr>
<td>Other services</td>
<td>39.2</td>
<td>34.4</td>
<td>46.3</td>
</tr>
<tr>
<td>Public administration and defense</td>
<td>(9.7)</td>
<td>(9.0)</td>
<td>(7.5)</td>
</tr>
<tr>
<td>Finance, insurance, real estate</td>
<td>(1.7)</td>
<td>(3.4)</td>
<td>(19.0)</td>
</tr>
<tr>
<td>EXPORTS AND IMPORTS (IN CURRENT PRICES)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commodity exports (US$ billion)</td>
<td>0.055</td>
<td>15.1</td>
<td>175.9</td>
</tr>
<tr>
<td>Ratio to GNP</td>
<td>(2.0)</td>
<td>(22.9)</td>
<td>(38.6)</td>
</tr>
<tr>
<td>Commodity imports (US$ billion)</td>
<td>0.4</td>
<td>20.3</td>
<td>159.1</td>
</tr>
<tr>
<td>Ratio to GNP</td>
<td>(14.3)</td>
<td>(29.8)</td>
<td>(35.0)</td>
</tr>
<tr>
<td>Share of manufacturing exports</td>
<td>27.0</td>
<td>90.1</td>
<td>97.6</td>
</tr>
</tbody>
</table>


Figure 5-1. Average Annual Growth Rate of GDP, Employment, and Real Wages, 1963–2000.


doubled: from 31.5 percent in 1963 to 62.4 percent in 2000. Roughly one out of five workers is now engaged in a professional or managerial job. Since the mid-1960s, working conditions have improved substantially, measured in terms of average hours worked per week and frequency and severity of industrial accidents (Appendix C).
Korea's experience is especially noteworthy because, as is frequently observed in the case of less developed countries (LDCs), rapid economic growth does not necessarily guarantee high employment creation. Growth can be concentrated in a relatively limited part of the economy, resulting in both rising unemployment and unequal distribution of income.

For years, analysts have debated whether there is a necessary conflict between growth in output and employment creation. Some have argued for "employment pessimism." Korea refutes this view. From 1963 to 1979, Korea achieved not only extremely high GDP growth (approximately 9 percent per year), but also rapid employment creation (5 percent per year in total employment, and 7 percent per year in non-farm employment) and a sharp decline in unemployment (from 8.1 percent in 1963 to 2.0 percent in 1995; the reduction of non-farm unemployment was even more dramatic, from 16.3 percent to 2.2 percent) (Figure 5-2). How has Korea achieved "more growth with more employment?"

First, Korea has correctly chosen to promote the export of manufactured goods, rather than to pursue the traditional path of import substitution or the export of primary goods. As shown in Table 5-1, the Korean export sector amounted to only US$55 million, or 2 percent of GNP, in 1962, but jumped to US$15.1 billion, or 23 percent of GNP, by 1979. During this period, the average annual rate of increase was 39 percent. By 2000, exports had risen to US$175.9 billion, or 38.6 percent of GNP, increasing by an average annual rate of 12.4 percent. This rapid growth of exports was led by a significant expansion of manufactured exports. From only 27 percent of

---

**Figure 5-2.** Labor Force Participation Rate, Employment Rate, and Unemployment Rate, 1963–2000.
the nation's exports in 1962, the share of manufacturing exports rose to about 90 percent by 1979 and reached almost 98 percent in 2000.

An important advantage of such an export promotion policy is that it can exploit the huge size of the global market. The size of the market determines the degree and possibility of the division of labor, which in turn determines labor productivity. Economic growth means rising productivity, and rising productivity is caused by a more specialized and sophisticated division of labor, which is ultimately determined by the size of the market. Therefore, market size is a critical determinant in economic development. An import substitution policy has little possibility for productivity increases, mainly because it remains confined to a narrow and limited domestic market. But an export promotion policy can tap into a virtually unlimited global market, thus exploiting vast possibilities of division of labor—and resulting in rising productivity and rapid GDP growth. Even within an export promotion policy, exports of manufacturing goods are preferable to exports of primary goods, simply because the former have more potential for a greater division of labor, and thus for productivity increases.

In addition, Korea correctly decided to rely primarily on private entrepreneurship for export promotion and economic development. Korea did not choose to use state-owned enterprises (SOEs) as a major vehicle for these purposes. In 1960, there were 36 SOEs; by 1971, there were 119—but they accounted for less that 14 percent of non-agricultural output. Since then, SOEs have not grown much. As of 2000, there were 182 SOEs, with 288,000 employees, which is approximately 2.7 percent of all wage and salary employees. In short, even though the power of the government in the Korean economy has been great, the economic size of SOEs has remained relatively small; private sector development has dominated the economic activities of Korea for the past four decades.

Another good policy decision was the "getting the prices right" reform of the early 1960s. In the 1950s, the exchange rate was artificially overvalued. In 1964, the government devalued the Korean currency significantly, from 130 to 255 Won per U.S. dollar. In the 1950s and early 1960s, the interest rate was kept artificially low. In 1965, the government raised the one-year time deposit rate from 15 percent to 30 percent, about a 20 percent increase in real terms, considering a 10 percent inflation rate. Correcting the two important distorted macroeconomic variables, the exchange rate and the interest rate, not only boosted export expansion but also induced export industries to become more labor-intensive, thereby contributing to rapid employment creation. The exchange rate reform encouraged exports and the use of domestic inputs, especially labor-intensive ones, by discouraging imports of capital-intensive machinery and intermediate goods. The interest rate reform encouraged both private savings and the adoption of labor-intensive technology by increasing the price of capital.

These two vital reforms were not only important in their own right; they also demonstrated that the Korean government was determined to utilize market mechanisms or price signals to achieve its developmental goals.

Third, not only was the demand side extremely favorable, as discussed, but so was the supply side. Human resource conditions were truly advantageous to the rapid expansion of labor-intensive manufactured goods. In the early 1960s, Korea was characterized not
only by its abundant labor supply, but also by the relatively high level of educational attainment of its population. After 1945, a system of compulsory primary school education was introduced and secondary and higher education also grew rapidly. As a result, by the early 1960s, the literacy rate had reached 90 percent, skyrocketing from 22 percent in 1945. In the 20 years following 1945, the number of college students increased approximately twenty-fold, and middle and high school about fifteen-fold. By 1965, Korea's human resource development exceeded the norm for a country with three times its median per capita GNP.¹

The education explosion continued during the 1960s and 1970s, and shows no sign of a slowdown or leveling off. By 2000, one out of four Koreans was either a college student or a college graduate, and one out of three was either a senior high school student or graduate.² As of 2000, those who have either a senior high school diploma or a college degree account for 71.8 percent of the population over the age of 25. In recent years, some commentators have even begun to talk about overeducation in Korea.

In addition, after a long period of colonial exploitation (1910-45) and further conflict (the Korean War of 1950-53), both the aspirations and eagerness of the Korean people to improve their living conditions were very strong in the 1960s and 1970s. Koreans were willing to dedicate themselves fully to hard work. The abundant supply of labor, combined with the relatively high educational background and strong motivation of the work force, not only provided very favorable initial conditions for the Korean economy to take off, but has continued to be the primary source of growth in the Korean economy thereafter.

Fourth, the government built a risk-sharing coalition or partnership with the private sector to maximize exports and economic growth. In the 1960s, the government decided to permit state-owned banks to guarantee the private sector's foreign borrowing. Special favors were extended to the export sector in this risk-sharing arrangement. In addition, various preferential interest rates on export credit, as well as various tax concessions for export industries, were introduced. In the 1970s, the government decided to promote heavy and chemical industries (HCIs) vigorously, and extended a so-called "policy loan" with extremely generous interest rates to those industries. In 1973, the government even established the National Investment Fund exclusively to finance long-term investment in the HCIs. This strategy of risk-sharing partnership between government and business came to be named the GBC (Government-Business Coalition) strategy. The strategy, which prevailed during the 1960s and 1970s, encouraged export maximization and private investment. Without the GBC strategy, the Korean economy could not have produced such rapid export growth and employment creation. In the 1960s, the GBC greatly improved the investment climate of the private sector. This is an indispensable prerequisite for rapid economic growth and rapid employment creation, especially in a country's early stage of development. Without a high investment rate, there simply is no rapid economic growth and rapid employment creation.

GBC helped the private sector gain easy access to foreign capital and also encouraged the private sector to invest more aggressively by sharing risk between the government and business. The private sector became bolder in making risky and long-term
investments. In addition, GBC invented the policies for various export subsidies, which also induced high investment rates in export industries.

On the other hand, the moral hazard problem associated with risk-sharing was not great in the 1960s. The performance of business groups could be evaluated rather objectively by reviewing the export record. When export performance fell below the initial expectation, the government could easily withdraw its support: namely, the guarantee of foreign borrowings through the government-run banks, and various government subsidies extended to the export industries. So there were always sticks available to discipline the assisted industries. In this regard, the GBC was relatively efficient in the 1960s.

In the 1970s, however, the GBC was less efficient. The government pushed projects in the heavy and chemical industries such as autos, ships, steel products, general machinery, and organic chemicals. But this pursuit was perhaps too single-minded, in bureaucratic and sometimes even in autocratic ways. The government supported the designated big business groups in developing those industries though such inducements as preferential long-term credit and tax incentives. However, the government lacked an effective means of disciplining the assisted industries. The performance of the industries was not easily detected solely through their export records because HCs have an intrinsic import-substitution character to their nature. Moreover, most HCs were "too big to fail." Accordingly, there were no useful sticks to discipline the subsidized industries; the moral hazard problem became increasingly serious in the 1970s. In short, GBC contributed greatly to the rapid economic growth and expansion of employment in the 1960s, but less so in the 1970s.

Fifth, Korea could have done even better if the government had chosen employment maximization as one of its major developmental goals. In the 1960s and 1970s, the top priority in the government's economic policy was the maximization of exports and economic growth rates. Employment maximization, however, has not been an explicit goal. But thanks mainly to the labor-intensive character of the Korean export industry, Korea's performance of employment generation has been fairly impressive. However, Korea has not fully exploited its maximum potential of employment creation. Two problems should be pointed out in this regard.

The first is the problem of small and medium enterprises (SMEs). The development of SMEs is of vital importance in generating employment and in improving income distribution. Small and medium enterprises tend to use more labor-intensive techniques of production. They also rely more on indigenous inputs and the domestic market, thus generating stronger backward and forward linkages. Since they tend to require less capital per unit of output, a given amount of capital can produce more employment. In addition, they tend to use more marginal and traditional laborers, such as minors and the elderly, who are largely inappropriate for large capital-intensive industries. Thus, the development of small and medium-sized enterprises is extremely valuable both for employment creation and for better income distribution.

However, the government policy in Korea toward small-scale economic units has been characterized by benign neglect or active discrimination for the past four decades. Government subsidies and assistance to industries were scaled according to export volume in the 1960s and according to the capacity to support huge HCs in
the 1970s. Small and medium-sized enterprises have always been treated relatively unfavorably. Meanwhile, large-scale enterprises have obtained direct benefits from a variety of favorable arrangements, such as easy access to cheap credit, foreign exchange concessions, tax reductions, and monopolistic rights to import raw materials. In short, in the past four decades, Korea has not succeeded in fully capitalizing on the potential of further employment creation in small and medium-sized enterprises.

Another problem is capital subsidies. As noted, the Korean government raised the interest rate to the market level in the early 1960s to induce domestic savings. At the same time, it extended various capital subsidies, in the form of preferential credit at discounted interest rates. These rates were frequently negative in real terms, so they increased private investment in export industries and HCIs considerably. However, to a greater extent, high investment and high growth can be achieved not through capital subsidies but through labor subsidies. Labor subsidies, such as subsidies of wages, training costs, or costs of recruitment, can greatly encourage not only the growth of output but also employment creation. In addition, labor subsidies also stimulate R&D activities directed at inventing labor-using and capital-saving technology. By contrast, capital subsidies are much less likely to increase employment, even though they encourage output growth. Moreover, they stimulate R&D in more capital-using and labor-saving areas.\(^3\)

The policy option to maximize employment has never been tried in Korea. If the government had paid proper attention to small and medium-sized enterprises and had tried to capitalize on labor subsidies, then the Korean economy could have created more employment opportunities than it did. In addition, Korean might have achieved even more upward mobility.

Lastly, after the 1997 Asian financial crisis, the non-farm unemployment rate soared to 7.6 percent in 1998, from approximately 2.2 percent before the 1997 crisis. It remained relatively high, at 4.4 percent, as of 2000 (see Table 5-2). Real wages also declined to \(-9.9\) percent in 1998, but quickly jumped to 13.9 percent in 1999 and 6.1 percent in 2000. Income inequality increased sharply after the 1997 crisis (see Appendices A and B). Recently, there has been a growing concern whether the Korean economy can maintain the high employment-creating capacity that it has enjoyed for the past four decades.

Table 5-2 Recent Changes in GDP, Unemployment Rate, and Real Wages, 1995–2000 (percent)

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP</th>
<th>All</th>
<th>Non-farm</th>
<th>Non-farm All</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>8.9</td>
<td>2.0</td>
<td>2.2</td>
<td>6.4</td>
<td>5.2</td>
</tr>
<tr>
<td>1996</td>
<td>6.8</td>
<td>2.0</td>
<td>2.2</td>
<td>6.6</td>
<td>6.9</td>
</tr>
<tr>
<td>1997</td>
<td>5.0</td>
<td>2.6</td>
<td>2.8</td>
<td>2.5</td>
<td>0.7</td>
</tr>
<tr>
<td>1998</td>
<td>-6.7</td>
<td>6.8</td>
<td>7.6</td>
<td>-9.3</td>
<td>-9.9</td>
</tr>
<tr>
<td>1999</td>
<td>10.9</td>
<td>6.3</td>
<td>6.9</td>
<td>11.2</td>
<td>13.9</td>
</tr>
<tr>
<td>2000</td>
<td>8.8</td>
<td>4.1</td>
<td>4.4</td>
<td>5.6</td>
<td>6.1</td>
</tr>
</tbody>
</table>

The exceptionally high growth rate has taken care of the employment problem rather successfully. It is unlikely that the Korean economy will maintain its growth rate at such a high rate. Thus, creating more good jobs will be an increasingly important policy concern and challenge to the Korean economy in the coming decades.

MOVING TO THE FUTURE

How can Korea continue “shared growth” in the future? What policy package should Korea choose to obtain both high growth and high upward mobility? The surest way to achieve the two goals simultaneously is to maximize the number of high-productivity, high-paying jobs. The maximization of “good jobs” will depend on the successful implementation of the following policy and institutional reforms.

Market Liberalization Reform

The old developmental model, the Government-Business Coalition, must be replaced by a new model based on the market liberalization principle. The “strong government” was an important asset in Korea during the 1960s and to a lesser extent in the 1970s. But since the 1980s, it has turned into a liability. What Korea needs is a “strong market,” robust and dynamic—not an interventionist government.

In the early 1980s, Korea launched certain policy reforms to introduce more elements of market liberalization. There have been several attempts in such fields as trade and financial liberalization, anti-trust and competition law, deregulation, and privatization to construct “a strong market.” But many attempts were distorted and frustrated in the process of implementation. The government advocated the importance of private initiatives and promised to rely on market mechanisms in dealing with economic issues, but its deeds have always deviated far from its words. Overall, the government has made some progress, but is still lagging far behind expectations.

There are two reasons why market liberalization reform has been less successful. The first is related to the incompleteness of reform policy. While Korea has pursued market liberalization policies since the early 1980s, they have been implemented without preparing new proper structures of governance. Liberalization without governance is not only ineffective, but is also very misleading and dangerous. A market cannot function in a vacuum. A market needs the appropriate institutions and governance structures in order to ensure its best performance. The government tried to eliminate the old institutions, which had repressed the market, but it failed to build new institutions, which would revitalize the market. To destroy old institutions and governance is rather easy, but to construct new and effective ones is very difficult and sometimes very time-consuming.

The second reason was related to political economy. The GBC model produced an alliance of economic players who were more interested in maintaining the old coalition model. Politicians, bureaucrats, and business leaders all wanted to consolidate the status quo and preserve the vested interests associated with it. Politicians could demand kickbacks from business groups in exchange for special favors concerning various government subsidies. Technocrats could maintain their power in the management of economic affairs. Business could enjoy various privileges and benefits from the government. So nobody really wanted real change.
But the old GBC model could not last long for the following reason. The old model was a product of certain political and economic variables. Two of these variables are changing very rapidly. In the political arena, the democratization movement, launched in 1987, increased the number of political players significantly. In the old model, there were only two dominant players: the government and the industries. Recently, many new participants have appeared and have joined in the political game, such as labor unions, consumer groups, taxpayers, NGOs, intellectuals, and the media. Thus, the government cannot serve and protect the exclusive interests of industries at the expense of other participants. In addition, democratization has led to more frequent occasions of splits in opinion within the government and between the parliament and the administration. More divisiveness has also arisen in the business community: for example, between large and small-scale enterprises.

In the economic arena, there was another significant development. The economic power possessed by the private sector has increased considerably during the past four decades. So it has become increasingly less possible for the government to control the private sector as effectively as before. And the rapidly expanding trend of globalization has given more leverage to businesses with respect to the government; if businesses are not happy with the government, they can invest overseas rather easily.

All these reasons suggest that the old model is not sustainable. There is another reason, as well. During the 1960s and 1970s, the government had a longer time horizon and better-qualified staff than the private sector. Thus, the government could suggest a long-term vision to the private sector in the form of five-year economic development plans. These plans were taken seriously by the private sector when they were settling their own investment decisions. As democracy and the economy have grown in Korea, the situation has reversed. The private sector now has a longer time horizon and better-qualified staff and professionals than the government. Thus, inevitably, the role of the government is being drastically redefined.

As to the future, the government should have three major roles. The first should be setting the rules of competition in the market and enforcing them strictly, with no exceptions. Economic freedom must be guaranteed to the maximum as far as competition rules allow. Any regulation of the private sector should be rule-based and no longer discretion-based.

The second role should be developing proper governance and institutions in which market liberalization can flourish. For example, financial liberalization should be accompanied by more a prudent regulatory regime. Otherwise, financial liberalization may lead to a financial meltdown, as many Asians nations experienced in the 1997 crisis. One of the major reasons why many market liberalization reforms have failed in emerging markets, as well as in transitional economies, has been that liberalization reforms proceeded without preparations first being made for a new governance or regulatory regime in which market forces can work in a more orderly fashion.

The third role should be preparing for efficient and effective social safety nets (see the chapter by Carol Graham in this volume). The market liberalization reforms and competition laws could solve the problems facing about 80 to 90 percent of the total population. They cannot solve the problems confronting the remaining 10 to 20 percent. Korea needs an effective social safety net for those who cannot compete
Globalization, accompanied by new technologies, such as information technology, bio-technology, environmental technology, and nano-technology, tends to produce a new social divide and to increase the gaps among different socio-economic groups. Thus, a proper safety net must be prepared; otherwise, economic globalization cannot be sustainable socially. In short, for the future of Korea, we do not need a "strong government." What we need is a "strong market." But a strong market should come with a "strong society"; if it does not, both will fail.

Education Reform

To continue "shared growth" in Korea, the top policy priority should be restructuring education. Investment in education is the best way to guarantee both economic and social development, and this is especially true in the coming age of the knowledge economy and globalization. High-productivity, high-paying jobs can be produced only in a society in which people have attained educational excellence. Education, as already discussed, has been one of the biggest assets in Korea's development. But now, it is becoming a bottleneck for further economic development. The problem is not quantity; it is the quality of educational performance. In this regard, two of the most serious issues are the so-called "equalization policy" in secondary schools and the under-investment problem at the post-secondary level.

The equalization policy allocates students to schools by administrative decision. Students are not allowed to choose the school they would like to attend. The rationale was to make educational opportunities more equal to everyone. If private choices were allowed, then inequality in educational opportunities would arise because of differences in family background; rich or smart students would monopolize the limited number of spaces in prestigious schools.

Accordingly, the equalization policy, which had gradually been introduced since the 1970s, has served to choke the Korean secondary school educational system. The second problem is related to the teaching quality of undergraduate schools and the research quality of graduate schools. Both are the consequences of two things: under-investment and inappropriate school governance. The number of colleges and universities has expanded quite rapidly, but this expansion has not been followed by an adequate increase in teaching staff and teaching facilities. The problem of under-investment is most acute in the research activities in the graduate schools. Only very few universities have the capacity to carry out world-class research; most others fall far short. The poor research capacity at universities has begun to retard the technological progress of the Korean economy. It will be a more serious problem in the future.
because the university-industry linkage in R&D activities will play a more critical role in upgrading the national innovation system in the 21st century.

Under-investment is one reason underlying the lagging quality of tertiary education. But there is another reason: the lack of appropriate university or college governance. Currently, in most colleges and universities, the president and dean are elected by a direct vote among professors. They are elected for only a single term, which is relatively short: generally four years for president and two years for dean. Therefore, campus politics plays a more important role in university management than educational reform or restructuring. In addition, the short-term service of the president and dean makes it almost impossible to establish and implement a long-term vision and strategy. Moreover, there is no mechanism through which the president or dean would be responsible for and responsive to the needs of educational consumers, such as students, parents, industries, and communities.

Even though the changing economy requires substantial restructuring or a complete renewal of the current college and university system, there is neither effective leadership nor an incentive structure to carry out necessary changes and reforms. Many commentators argue that the government’s excessive regulation of college and university education must be blamed for all the problems in tertiary education. But this is only half true. Under the current system of school governance, deregulation does not necessarily produce expected reforms in higher education. Without constructing proper school governance—necessary for effective and responsible leadership—the deregulation policy could easily exacerbate the current problems of low-quality education. Therefore, what Korea needs is a sweeping educational reform and restructuring at both secondary and tertiary levels. Only then can Korea construct a “developmental society,” not a developmental state, a precondition to meet the challenge of the knowledge economy in the 21st century.

Industrial Relations Reform

“Good jobs” mean not only high-productivity, high-paying jobs, but also highly fulfilling, highly satisfying jobs. “Good jobs” should provide a sense of participation and accomplishment, as well as self-esteem and self-realization. These qualitative aspects can be attained through industrial democracy, especially at the workplace level.

The GBC was based on the exclusion of labor from political as well as the economic decision-making process. Labor did not have a chance to speak out on political and economic matters before 1987. Effective wage negotiation was not permitted and unions could not participate in the government policy-making process. Only after 1987 did unions begin to bargain effectively, and only after 1996 did unions start to participate in the government’s decision-making process. Thus, the history of industrial democracy is rather short in Korea.

At this juncture, Korea faces a dilemma. On the one hand, Korea is in an early stage of industrial democracy; on the other, a less favorable attitude or sentiment to the labor movement is growing as globalization intensifies. As is often observed, globalization tends to favor capital and disfavor labor, especially unskilled workers; it also tends to prefer cooperative industrial relations and dislike confrontational industrial relations.
Therefore, the fundamental dilemma confronting Korean policy makers is how to harmonize or balance the rising demand for more industrial democracy, more voice, and more participation with the rising demand for a more flexible labor market, less voice, and more compromise. In sum, a complete transition of the development paradigm, from the government-business coalition strategy to the market liberalization strategy, a drastic overhaul of the education system toward world-class quality, and harmonizing of industrial democracy with labor market flexibility are the major challenges currently confronting Korea. If Korea can meet these challenges successfully, then the nation can continue its march toward sustainable "shared growth" even in the 21st century.

GENERALIZING BEYOND KOREA: PRIVATE SECTOR DEVELOPMENT AND THE MECHANISM OF UPWARD MOBILITY

Private sector development is usually defined as tapping private initiative for socially useful purposes. In other words, it implies inventing a market in which private initiative is working freely, and making the market transparent, fair, and competitive so that it can function toward a socially desirable direction. As a matter of fact, rapid economic development cannot be achieved without private sector development: that is, without a well-functioning market mechanism.

So the challenge is how to do it. What kind of private sector development strategy should we create to structure the market to better serve the interests of society? To be more concrete, the issue is what strategy will provide more freedom and incentives for private economic agents to realize their full potential—while developing an institutional or regulatory framework in which efforts of private agents can be channeled in socially desirable directions. Thus, the choice of a private sector development strategy can be narrowed down to what role the state should play in relation to the market. To put it somewhat differently, it is about how to invent a proper relationship between the state and the private sector (that is, the market). Different countries usually adopt different strategies for private sector development. The choice depends on many factors, such as history, culture, and institutions, as well as the vision of leading elites. Even in the same country, different strategies can be selected, depending on the different stages of development.

What does the experience of Korea suggest about the right mix of market forces and state intervention? In the early stage of development, the state should be more proactive and interventionist for rapid economic development. A well-designed role by the state can be an effective tool to help the economy take off. Without the proper state role, it can be difficult for less developed countries to escape from the vicious circle of underdevelopment (low income → low saving and investment → low growth and low employment → low income). In this regard, the GBC model could be a successful example or reference for other developing countries.

Once development reaches the middle-income level, then the paradigm should shift from one of state intervention and guidance to one of market liberalization and prevalence. In the market liberalization paradigm, the role of the state should change. The first role is to set the rules of free and fair competition in the market and allow
maximum economic freedom within the rules. Intervening in the market and trying to “pick the winners” should be avoided.

The second role is to develop proper governance and appropriate institutions in which the market can flourish. Market liberalization should be accompanied by a proper regulatory regime. Otherwise, it could result in a market meltdown, resulting in an economic crisis. Indeed, the absence of prudent regulations was one of the major reasons underlying the Asian financial crisis in 1997.

The third role is to prepare efficient and effective social safety nets for those who cannot compete in the market, either temporarily because of unemployment or permanently because of old age or other physical constraints.

In addition, to maintain both high growth and high upward mobility in the future, several steps are needed to strengthen the educational system and make it world-class. First, greater importance must be attached to encouraging individuality and creativity, as well as the capacity to work with others in teams. Second, drastic deregulation of education must be carried out so that schools have greater autonomy and teachers participate in running schools. Third, competition between schools and teachers must be increased and students and parents should have a wider choice of schools and educational programs. Fourth, an open and life-long education system should be established. Information and communication technologies can help in this task, and can provide every individual with equal and easy access to education at any time and any place.

As pointed out repeatedly, high upward mobility comes from the rapid creation of high-productivity, high-wage jobs. These good jobs can be produced rapidly only in a society in which people have attained world-class educational excellence. This is especially true in the coming age of the knowledge economy and information society.

Another important focus is industrial relations. This is also a priority in an era of globalization. In this regard, the recent experiences of the small, open economies in Europe, such as Austria, Denmark, Ireland, and the Netherlands, offer many good lessons. These nations have tried to combine and integrate the social democrats’ values and heritage, which emphasize participation, democracy, and solidarity, with the rising demands of neo-liberalism, which stress flexibility, competition, and efficiency. To a great extent, they have succeeded in obtaining these two goals, which are seemingly conflicting. They have accomplished rapid economic growth while maintaining an active social dialogue, and have improved competitiveness while encouraging responsive social protection.

If Korea and other emerging economies can answer these challenges successfully, then they may be able to sustain “shared growth” even in the coming decades.
APPENDIX A. TRENDS IN POVERTY, KOREA, 1960s–PRESENT

Over the past four decades, absolute poverty has been substantially eradicated in Korea, the three different studies illustrated below agree. Even though there was a sharp rise in absolute poverty after the 1997 crisis, the normal trend of reduction has resumed rather quickly. It should be noted that the studies relied on different absolute poverty lines, estimated by different methods and different data sets, and thus do not permit comparisons of the ratios across the studies (Tables 5A-1–5A-3).

Table 5A-1 Incidence of Absolute Poverty, 1965–84 (Poverty headcount ratio)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Urban</th>
<th>Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>40.9</td>
<td>54.9</td>
<td>35.8</td>
</tr>
<tr>
<td>1970</td>
<td>23.4</td>
<td>16.2</td>
<td>27.9</td>
</tr>
<tr>
<td>1976</td>
<td>14.8</td>
<td>18.2</td>
<td>11.7</td>
</tr>
<tr>
<td>1980</td>
<td>9.8</td>
<td>10.4</td>
<td>9.0</td>
</tr>
<tr>
<td>1984</td>
<td>4.5</td>
<td>4.6</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Source: Suh and Yocti 1986.

Table 5A-2 Incidence of Absolute Poverty, 1993–98 (Poverty headcount ratio)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Large cities</th>
<th>Medium-small cities</th>
<th>Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>13.4</td>
<td>9.7</td>
<td>11.3</td>
<td>44.6</td>
</tr>
<tr>
<td>1994</td>
<td>13.9</td>
<td>9.5</td>
<td>14.4</td>
<td>35.6</td>
</tr>
<tr>
<td>1995</td>
<td>10.0</td>
<td>6.4</td>
<td>9.4</td>
<td>31.9</td>
</tr>
<tr>
<td>1996</td>
<td>8.7</td>
<td>5.6</td>
<td>8.3</td>
<td>21.1</td>
</tr>
<tr>
<td>1997</td>
<td>7.3</td>
<td>4.6</td>
<td>7.8</td>
<td>18.0</td>
</tr>
<tr>
<td>1998</td>
<td>13.1</td>
<td>11.8</td>
<td>11.9</td>
<td>22.9</td>
</tr>
</tbody>
</table>


Table 5A-3 Incidence of Absolute Poverty, 1998–2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7.9</td>
</tr>
<tr>
<td>1999</td>
<td>1</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>9.1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>7.1</td>
</tr>
<tr>
<td>2000</td>
<td>1</td>
<td>7.4</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5.6</td>
</tr>
</tbody>
</table>

APPENDIX B. INCOME INEQUALITY IN KOREA, 1960s–PRESENT

Korea has achieved moderate improvements in income inequality, the available studies suggest (see Table 5B-1). Income inequality decreased in the 1960s but increased in the 1970s. The studies also reveal that income inequality decreased during the 1980s and early 1990s. However, it increased substantially between 1995 and 2000, mainly because of the financial crisis of 1997.

It should be noted, however, that the estimates vary in the length of years covered and use different data sources. Even in a case of the same data source, they employ different modifications and different methods of estimation. The most critical drawback of the available studies lies in the limitations of the data sources. The common limitations of data are that in all studies, the data sets do not include one-person households and no-job households. Thus, those who are relatively impoverished tend to be excluded. Reliable income data on self-employed households are not available at all, so in most studies they are approximated from their expenditure survey. Of course, all studies exclude the incomes from capital gains and the underground economy and rely solely on gross income before tax.

Table 5B-1  Changes in Income Inequality, Korea, 1965–2000 (Gini coefficient)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>—</td>
<td>0.3439</td>
<td>0.365</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>—</td>
<td>0.3322</td>
<td>0.346</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>—</td>
<td>0.3908</td>
<td>0.408</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>0.3065</td>
<td>0.365</td>
<td>0.366</td>
<td>0.3102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>0.3059</td>
<td>0.366</td>
<td>0.366</td>
<td>0.3120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>0.3092</td>
<td>0.3574</td>
<td>0.406</td>
<td>0.393</td>
<td>0.3113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>0.3094</td>
<td>0.394</td>
<td>0.394</td>
<td>0.3139</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>0.3111</td>
<td>0.351</td>
<td>0.351</td>
<td>0.3148</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>0.3115</td>
<td>0.411</td>
<td>0.384</td>
<td>0.3162</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>0.3069</td>
<td>0.3368</td>
<td>0.340</td>
<td>0.3118</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>0.3065</td>
<td>0.365</td>
<td>0.365</td>
<td>0.3114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>0.3006</td>
<td>0.365</td>
<td>0.327</td>
<td>0.3071</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>0.3039</td>
<td>0.309</td>
<td>0.309</td>
<td>0.3089</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>0.2948</td>
<td>0.3226</td>
<td>0.300</td>
<td>0.3000</td>
<td>0.2972</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>0.2869</td>
<td>0.365</td>
<td>0.302</td>
<td>0.2925</td>
<td>0.2901</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>0.2836</td>
<td>0.287</td>
<td>0.288</td>
<td>0.2881</td>
<td>0.2848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>0.2817</td>
<td>0.289</td>
<td>0.289</td>
<td>0.2854</td>
<td>0.2824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>0.2845</td>
<td>0.363</td>
<td>0.292</td>
<td>0.2890</td>
<td>0.2857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>0.2837</td>
<td>0.288</td>
<td>0.288</td>
<td>0.2886</td>
<td>0.2847</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>0.2907</td>
<td>0.288</td>
<td>0.288</td>
<td>0.2954</td>
<td>0.2917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>0.2830</td>
<td>0.282</td>
<td>0.287</td>
<td>0.2871</td>
<td>0.2837</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>0.3163</td>
<td>0.3213</td>
<td>0.3163</td>
<td>0.3213</td>
<td>0.3163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>0.3210</td>
<td>0.3274</td>
<td>0.3210</td>
<td>0.3274</td>
<td>0.3210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>0.3170</td>
<td>0.3226</td>
<td>0.3207</td>
<td>0.3226</td>
<td>0.3207</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Survey on Urban Household Economy, various issues, National Statistical Office, and other studies as noted above.
APPENDIX C. IMPROVEMENTS IN QUALITY OF EMPLOYMENT, KOREA, 1960s–PRESENT

By several measures, the quality of employment in Korea has improved substantially over the past four decades. First, the change of wage and salary employees as a percentage of total employment—an indicator of industrialization as well as quality of

Figure 5C-1. Changes in Types of Employment, 1963–2000.

Figure 5C-2. Average Hours Worked Per Week, Korea, 1963–2000.
employment—shows constant improvement, rising from 31.5 to 62.4 percent from 1963 to 2000. The proportion of professionals, technical, administrative and managerial workers, and clerical and sales employees as a percentage of total employment also improved considerably, more than doubling from 16.7 percent in 1963 to 36.2 percent in 1990. Average hours of work per week were about 55 hours in 1963 and increased to 59 hours by 1985, but then declined sharply, to reach 51.5 hours by 2000. The average industrial accident rates, another indicator of the quality of employment, also began to fall at the end of mid 1970s. The declining trend accelerated after 1987. In view of this evidence, we can conclude that not only the quantity but also the quality of employment has substantially improved in Korea during the past four decades. The evidence strongly suggests that the Korean people in general have become significantly better off during the period (Figures 5C-1–5C-3).

REFERENCES


NOTES
2To be more precise, in 2000, 3.071 million students were attending college (including two-year and four-year colleges and graduate schools) and 7.920 million were graduates. Since Korea's total population was 42.169 million in 2000, the ratio of college students and graduates to the total population was 26.06 percent \(=\frac{3,071 + 7,920}{42,169}\). By this calculation, one out of four Koreans is either a college student or a college graduate. The corresponding figure is 34.62 percent in the case of senior high school students and graduates.
3Won-tack Hong (1979) agrees that the Korean economy has not been creating employment as much as it would otherwise have because of extensive capital subsidization. He raises the question whether Korea
could have expanded its exports (and GNP) so rapidly if it had insisted upon using less capital-intensive production techniques. Theoretically, this is an interesting question. Empirically, it is almost impossible to prove or disprove. Of course, Hong did not take any conclusive positions on the question.

4 The total assets of the 30 largest Chaebol (large conglomerates owned by wealthy families) were 425 trillion Won in 1996, and total sales were 385 trillion, while total government spending, including that of local governments, was only 127 trillion Won.

5 Korea launched a comprehensive educational reform in 1995, as part of a "Reform for Globalization." The background of the reform, what problems the reform tried to tackle, what the hurdles were in the way, and what lessons the reform left for us are examined and discussed in Park (2000b).

6 As of 2000, 70.8 percent of all junior and senior high school students were receiving private tutoring.

7 The average length of presidential service was 2.5 years at Seoul National University. By contrast, it was 21.0 years at Harvard, 10.5 years at Michigan, and 9.6 years at Stanford. The length of service was calculated as an average term of the five most recent presidents, excluding the current one.

8 The union penetration ratio has been declining sharply since the early 1990s. This decline of union membership is a serious challenge to industrial democracy in Korea.

9 To put it differently, private sector development is an effort to narrow the gap between the private rate of return and the social rate of return of people's socio-economic activities.

10 There is a common misunderstanding that a strategy of private sector development is about indiscriminate privatization or retrenching the role of the state. On the contrary, it is about keeping a good balance between the complementary functions of the state and the private sector. Sound government policies are absolutely required for a successful private sector development strategy.

11 For an excellent study on the policy successes of those countries, see Auer (2000).
6. The Central Role of Entrepreneurs in Transition Economies

JOHN McMillan and Christopher Woodruff*

"All sorts of small enterprises boomed in the countryside, as if a strange army appeared suddenly from nowhere," remarked Deng Xiaoping, reflecting in 1987 on the first eight years of China's economic reforms (Zhou 1996: 106). These startup firms drove China's reform momentum; they were arguably the single main source of China's growth. But their rapid emergence, Deng said, "was not something I had thought about. Nor had the other comrades. This surprised us." The reformers had not foreseen the key to their own reforms.

The other ex-Communist economies had similar experiences. As in China, new firms were drivers of reform. They strengthened the budding market economy by creating jobs, supplying consumer goods, mobilizing savings, and ending the state firms' monopoly. As in China, also, the reformers usually did not anticipate the force of entry.

Of the two routes to a private sector—privatizing the existing firms and creating new ones—the policy debates focused almost exclusively on the former. Little attention was given to what reform policies would foster entry. Dusan Triska, for example, the architect of Czechoslovakia's privatization program, said privatization "is not just one of the many items on the economic program. It is the transformation itself" (Nellis 2001: 32). It is not surprising that those who had spent their lives under central planning did not foresee the impact of entrepreneurship, but few analysts from the West predicted it either.

The reason for underestimating entrepreneurship, perhaps, was a sense that setting up a business, risky anywhere, is especially risky in an economy undergoing deep

Note: This chapter originally appeared in the Journal of Economic Perspectives, which has graciously granted permission to reprint it here.
reform. With prices volatile as a result of the reforms, it is unclear which lines of business are going to be the most profitable. State firms, fearing competition, harass the new firms, and corrupt bureaucrats extort bribes. Without the normal market-supporting institutions, the new firms usually cannot rely on the courts to enforce their contracts: bank loans are unobtainable for most; and there is little legal or regulatory provision for shareholding.

These handicaps notwithstanding, large parts of the new market economy arose spontaneously, through the initiatives of entrepreneurs. They succeeded by self-help: they built for themselves substitutes for the missing institutions. Reputational incentives substituted for court enforcement of contracts. Trade credit (loans from firm to firm along the supply chain) substituted for bank credit. Reinvestment of profits substituted for outside equity.

In this chapter we summarize entrepreneurial patterns in the transition economies, particularly Russia, China, Poland, and Vietnam. Markets developed spontaneously in every transition country, but they were built at varying speeds. Some governments impeded the entrepreneurs' self-help by creating conditions that made it hard for informal contracting to work; others created an environment that was conducive to self-help. The spontaneous emergence of markets, furthermore, has its limits. As firms' activities became more complex, they came to need formal institutions. Some governments fostered entrepreneurship by building market-supporting infrastructure; others did not (Frye and Shleifer 1997). We will argue that the success or failure of a transition economy can be traced in large part to the performance of its entrepreneurs.

THE ENVIRONMENT FOR ENTREPRENEURSHIP

All the transition economies, from the former Soviet Union and Central and Eastern Europe to China and Vietnam, were similar in one important respect: their planned economies had been dominated by large firms, producing few consumer goods. Small and medium-sized firms were almost nonexistent, though they are a large part of every market economy. Trade and services were also a much smaller part of the economy than is typical for a market economy. As reforms led to greater flexibility in prices, wages, and production decisions, the imbalances inherited from the planned economy created enormous profit opportunities for entrepreneurs. Entrepreneurs responded by starting enterprises at a rapid—though varying—rate in each of the transition countries.

Some governments actively made it hard for entrepreneurs to operate. Expropriation of profits through official corruption was the most conspicuous of such actions. Managers of startup manufacturing firms were asked in a survey whether "extralegal" payments were needed in order to receive government services or a business license (Johnson, McMillan, and Woodruff 2002b). More than 90 percent of Russian managers said they were, compared with about 20 percent of Polish managers. Corruption deters investment. Those firms in the sample that were the most concerned about corruption invested nearly 40 percent less than those least concerned. The mafia is a further deterrent to entrepreneurship. Asked whether payments to private agencies were necessary for "protection" of their activities, more than 90 percent of Russian managers and 8 percent of Polish managers said they were.
Managers were asked in the same survey whether they would invest $100 today if they expected to receive $200 in two years (an implied annual rate of return of 40 percent). The responses to this question give an indication of both the opportunity cost of money and the security of property. A striking 99 percent of the Russian managers said they would not, compared with 22 percent of the Polish managers.

Illegitimate takings aside, official policies often make it expensive to set up firms. Entrepreneurs must apply for business licenses, to establish that their company's name is unique and provide proof of their startup capital; then they must file with the tax and labor authorities. In Russia, setting up a new business takes an entrepreneur over two months and costs 38 percent of per capita GDP in official fees (Djankov and others 2002). In Poland, it takes nearly a month and costs 28 percent of per capita GDP. In Vietnam, it takes nearly six months and costs a striking 150 percent of per capita GDP.

The government's decisions on privatizing state firms may also have affected the environment for new firms. Mass privatization could add to the general uncertainty, thus deterring entry. Across Russia's regions, more new firms have been formed where there was less privatization of small state enterprises, although more entry has occurred where there was more privatization of large-scale state enterprises (Berkowitz and Holland 2001). The continued presence of state enterprises also raised barriers to entry. They absorbed scarce capital and received regulatory favors (as did the privatized firms). Anecdotes abound of state firms stifling new entrants to prevent them from becoming competitors.

Not only did governments impede entrepreneurship, formal institutions to underpin entrepreneurial activity developed only slowly. In Vietnam in the mid-1990s, for example, after a decade of reform, the market institutions were still inadequate. Banks served state-owned firms almost exclusively. There were no credit-reporting bureaus. Courts able to enforce contracts between private firms were just being created. Among manufacturers we surveyed between 1995 and 1997, fewer than 10 percent said that courts or the government could enforce a contract with a buyer or seller, and just 10 percent said that they had received credit from banks when they started their business (McMillan and Woodruff 1999b). In another survey carried out in 1997, 74 percent of private firms reported having no debts to banks, and such debts represented only 20 percent of the capital among the 24 percent of the firms that did have them (Ronnas 1998).

PROFITS AND ENTRY

Four transition countries—Poland, Russia, China, and Vietnam—span the range of entrepreneurship patterns. Poland was among the most successful in fostering new private firms. Russia was among the least successful, although entry occurred even there. China took a distinctive path with entry of competitive enterprises run by local governments. Vietnam offers an example of robust growth of private firms even with an almost total absence of formal institutions to facilitate business.

A telling measure of the success of a country's reforms is the time path of entrants' profits. Figure 6–1 shows the path of profits in the five years following the start of transition in China (1979–84) and in Poland and Russia (1990–95). In China, at the start of the reform era in 1979, the average profits of nonstate firms were 28 percent of invested capital. This is very high in comparison to earnings in a mature market.
economy; small businesses in the United States typically earn returns between 9 percent and 15 percent of assets. As China’s transition proceeded, the new firms’ profits declined steadily through the first decade of reform, falling to 15 percent of invested capital in 1984 and leveling out at 6 percent in 1991 (Naughton 1995: 150).

In Poland profit rates of manufacturing firms in their first year of operation fell from an average of 25 percent of invested capital for firms formed in 1990 to 6 percent for firms formed in 1995. In Russia, also, profits earned by entrants were high at the start of the reforms: firms established in 1990 earned an average profit of 17 percent on invested capital in their first year of operation. By contrast with China and Poland, however, profits did not decline over time: first-year profits for firms established in 1995, at 16 percent, were almost as high as those for the firms established in 1990 (Johnson, McMillan, and Woodruff 2002b).3

The high profits earned in all three countries early in the transition are easily explained. The starting point was a heavily distorted economy with unfilled market niches. Firms that were able to overcome the impediments to doing business and produce and sell goods and services were very profitable. In Poland and China, as market-supporting institutions developed, the impediments declined and so rents fell. Russia’s stalled transition shows up in the absence of any decline in profit levels.

---

**Figure 6-1. Time-Path of Profits.**

Note: The horizontal axis shows the number of years into reform. For China, Year 1 means 1979 and Year 6 means 1984. For Poland and Russia, Year 1 means 1990 and Year 6 means 1995.

Data on the rate of entry of new firms are consistent with the profit paths shown in Figure 6-1. Entry occurred rapidly in China. Most of the new entrants were not private firms but rural enterprises run by local governments, called township and village enterprises. The share of China's industrial output accounted for by rural enterprises increased from 9 percent in 1978 to 30 percent in 1991 (Naughton 1995: 164). Since none of the increase in output of rural firms in China came from privatized state firms, all of it is attributable to newly formed firms. The entry of these new enterprises was driven by the extraordinarily high rates of profit available early in the reforms. The competition engendered by rapid entry was the primary cause of the fall in profits.

Entry in Poland was also rapid. Industrial employment in Poland's private sector firms increased from 15 percent in 1991 to 37 percent in 1994, according to Konings, Lehmann, and Schaffer (1996), using data collected by the Polish Central Statistical Office. The 21 percentage point increase was apparently largely the result of new entrants, since privatized firms represented only 6 percent of industrial employment in 1994. At least one-sixth of industrial employment in Poland in 1994, then, was in de novo firms (de novo meaning started from scratch rather than being spun off from state-owned firms). The level of self-employment in Poland increased from 6 percent of the labor force in 1988 to 12 percent in 1993, according to Earle and Sakova (1999), using labor market surveys. Although most of the firm-level studies in transition countries focus on manufacturing, entry may have been even more important in the service sector, given the underdevelopment of the service sector in the centrally planned economies. In Poland, the service sector grew from 40 percent of non-agricultural GDP in 1989 to 66 percent of GDP in 1997.

Russia, by contrast, saw less rapid entry. A 1995 study found that just 6 percent of manufacturing employment was in de novo firms (Richter and Shaffer 1996). Self-employment in Russia in the early years of the transition increased only from 2 percent of the labor force in 1988 to 3 percent in 1993 (Earle and Sakova 1999). Confirmation of the slowness of entry comes from data collected by Djankov and Nenova (2001) on employment in manufacturing firms with fewer than 50 employees in 1997. Since small firms were uncommon in the planned economy, small size is a rough proxy for de novo startups. They find that small firms represented 24 percent of manufacturing employment in Poland but only 10 percent in Russia, and that the employment share of small firms in the Russian service sector more than doubled from 13 percent in 1989 to 30 percent in 1997. All data on increasing shares in Russia need to be interpreted in the context of a shrinking economy. For example, Russia also saw services increase from 40 percent of the non-agricultural economy in 1989 to 62 percent in 1997. The share of services increased in spite of the fact that output of services actually declined by 1 percent per year during the 1990s; manufacturing declined much more rapidly.

The speed of entry in China, Poland, and Russia was consistent with the time path of profits shown in Figure 6-1. Robust entry in China and Poland brought plummeting profits. In Russia entry was slower and profits remained high.

In Vietnam, the available data also indicate that entry of private firms was robust (although we are unaware of any profit data there). Vietnam is an intriguing example
for its lack of formal market-supporting institutions. Yet Vietnam’s private sector boomed. The number of registered private firms grew by 40 percent per year between 1993 and 1997. Private sector employment grew from 3.8 million to 10.2 million between 1988 and 1992, while employment in state firms fell from 4.1 million to 3.0 million and in cooperatives fell from 20.7 million to 18.6 million. In the following three years, from 1992 to 1995, private sector employment grew by more than 2.4 million, during which time state-sector employment remained constant. This private sector growth came substantially from new entry or expansion of household enterprises, mostly retail and repair shops or small manufacturing enterprises. Vietnam has had no formal program of privatization. Although there were some ad hoc spin-offs from state-owned firms, these represent a minority of the private firms. For example, only 6 percent of firms we surveyed in 1995 said that more than half of their equipment came from state-owned firms (McMillan and Woodruff 1999b).

Entry was robust, then, in Poland, Vietnam, and, in its own way, China, while it was comparatively weak in Russia. Other transition countries saw entry in varying degrees. Ukraine and the rest of the former Soviet Union were like Russia, for example, whereas Slovakia was more like Poland. Profits were high early in the transition because the inefficiencies of the planned economy left unsatisfied demands and unfilled market niches. Where reform was successful, it brought competitive markets, eroding profits. Where it was less successful, the entrants’ profits remained high.

ENTREPRENEURS’ STRATEGIES

In the early years of economic transition, the absence of credit markets, courts, and other market institutions created substantial impediments to entry. Potential entrants had to find money with which to purchase equipment and inputs. They had to identify reliable suppliers and customers, when most firms were new and little information was available. The unusually high profit rates early in the transition provided a strong incentive for entrepreneurs. But what substituted for the missing formal institutions? Ongoing relationships among firms substituted for the missing institutions. Firms relied on the logic of the incentives to cooperate that arise in playing a repeated game. Where courts and laws are unreliable for settling disputes, firms trust their customers to pay their bills and their suppliers to deliver quality goods on the prospect of future business. Interviews with Vietnamese managers, for example, indicate that they think quite consciously about building relationships with specific customers and suppliers (McMillan and Woodruff 1999a).

Early in the process of transition, repeated-game incentives work especially well. When it is hard to locate alternative trading partners, because firms are scarce or market information is inadequate or transport costs are high, firms make efforts to maintain their existing relationships. They recognize that they are to some extent locked in with their trading partners, which provides an incentive to behave cooperatively (Kranton 1996; Ramey and Watson 2001). The evidence we present in this section suggests that self-enforcing contracts are all that is needed to support a lot of entrepreneurship, especially at the start of the reforms.
Evidence from Vietnam is especially pertinent here, since formal institutions were almost nonexistent for some years after its transition began. Consider access to capital. Even in developed market economies, a major source of capital for small and medium sized firms is trade credit from suppliers. The lack of formal financial markets meant that credit from suppliers was even more important to private sector firms in transition countries. In 53 percent of the relationships between the manufacturers we surveyed and their customers, some portion of the bill was paid on credit. That suppliers were willing to offer credit in the absence of formal enforcement of contracts is noteworthy. What gave the suppliers confidence that they would be paid? The willingness to sell goods on credit depended upon repeated interactions, according to the managers we surveyed (McMillan and Woodruff 1999a). Trading relationships most often began with cash transactions, as the partners “tested” each other. Firms got contractual assurance by dealing with firms they knew through having dealt with them before.

Informally enforced trade rests on the shadow of the future. A firm lives up to its agreements because it wants to go on doing business with this trading partner. For the future to weigh heavily enough to induce cooperative behavior, the discounted value of the future profit stream must outweigh whatever immediate profits could be squeezed from the deal. Some of the conditions in the transition economies actually worked against cooperation. The scarcity of credit meant the opportunity cost of capital was high. With high discount rates, firms have an incentive to take current profits rather than wait for future profits. Moreover, as we saw, profits tended to decline over time. To the extent that this was predictable, the gains from forward-looking behavior were lowered. That firms were nevertheless able to operate mutually beneficial relationships is striking.

Other circumstances of the transition aided informal contracting. Cooperation is easier to sustain when severing the relationship results in higher costs. Early in the transition, trading partners were most often located in the same city or even the same neighborhood. There were usually few firms nearby producing any given product. When a supplier severed a relationship with a customer, the customer had to incur a high cost of searching for another trading partner. As a result, trading partners tended to be locked in with each other, inducing them to try to sustain their existing relationships (Krantoni 1996; Ramey and Watson 2001).

Cooperation is also more easily sustained if punishment for malfeasance comes not only from the trading partner who has been cheated but also from other firms in the community. We found that gossip was important in Vietnam’s manufacturing community. Firms gathered information about potential or existing trading partners from other firms. Sometimes this information gathering was organized. Trade associations helped firms work productively with each other, by spreading information about who had breached contracts and by coordinating the sanctioning of them. This meant that reneging brought more severe consequences than merely losing the business of the offended party and thus increased the likelihood of cooperation (McMillan and Woodruff 2000; Recanatini and Ryterman 2000).

The self-help mechanisms evolved over time to support more complex transactions. Early in the transition, firms sold mostly to customers located in the same city or
limited sales to customers about whom they had prior information from family members, friends, or other firms with whom they did business. They were likely to inspect a customer's factory or store before selling to it. These are ways to reduce the risk of dealing with new trading partners, although they involve costs of exclusion or of time spent investigating trading partners. Relationships with firms located in distant cities are harder to manage than local sales, but limiting the circle of trading partners means passing up some opportunities for growth. Sales to customers located in other cities, and to customers about whom the manufacturer had no prior information, became more common as the transition progressed.

Table 6-1 illustrates these changes using data from surveys in three transition countries, Vietnam, Poland, and Russia. The surveys asked firms about the characteristics of their oldest and newest customer relationships. The table splits relationships into those that began earlier and later in the transition. Relationships labeled "old" are those begun in the first six years of reform, before 1993 in Vietnam and before 1995 in Poland and Russia, while those labeled "new" were formed between 1994 and 1997 in Vietnam and between mid-1995 and 1997 in Poland and Russia. All of the variables shown on Table 6-1 are measured at the start of the relationship, and as such are indicators of the formation of new relationships rather than the development of the specific bilateral relationships.

These data show statistically significant increases in transactions with customers from other cities, with customers about whom nothing was known at the start of the relationship, and in relationships that were initiated without the seller's having visited the buyer's factory or store. In Poland, for example, 35 percent of the customer relationships started by surveyed firms between 1989 and mid-1995 involved customers from a different city, compared to 45 percent of relationships started in 1995 or after. About 39 percent of the newer customers in Poland were anonymous when the trading relationship began, compared to 27 percent of the older customers. Trading started

Table 6-1 Development of Relationships with Trading Partners

<table>
<thead>
<tr>
<th></th>
<th>Vietnam relationships</th>
<th>Poland relationships</th>
<th>Russia relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Old</td>
<td>New</td>
<td>Old</td>
</tr>
<tr>
<td>Located in a different city</td>
<td>28.8%</td>
<td>38.9%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Previously unknown (t-statistic)</td>
<td>57.6%</td>
<td>65.5%</td>
<td>27.0%</td>
</tr>
<tr>
<td>Did not visit before first transaction (t-statistic)</td>
<td>36.6%</td>
<td>50.5%</td>
<td>28.8%</td>
</tr>
<tr>
<td>Number of firms</td>
<td>191</td>
<td>281</td>
<td>226</td>
</tr>
</tbody>
</table>

Notes: Old relationships are those initiated prior to 1993 in Vietnam and prior to 1995 in Poland and Russia. In parentheses: t-values for differences between old and new relationships. The data on "previously unknown" for Vietnam and the Eastern European countries are not directly comparable because of differences in the survey instrument. Entries marked "NA" are not available in the survey used in the given country.
in 38 percent of the new Polish relationships without the seller's visiting the buyer's facility, compared with 29 percent of the older relationships.

The patterns in the other countries are similar, both for Vietnam and Russia as shown in the table and for Slovakia, Romania and Ukraine, which are not shown. Further evidence on the increase over time in the sophistication of dealings comes from Bulgaria, where quality incentives developed. Suppliers became increasingly willing to guarantee quality and to replace substandard goods, based on their trading relationships (Koford and Miller 1998).

These data suggest that the problems of governing more complex relationships can be overcome not only where courts work relatively well, as in Poland, but even where courts do not function at all, as in Vietnam. Receiving no help from the state, entrepreneurs made do for themselves by relying on the incentives that arise in ongoing relationships. Repeated games substituted for the courts; trade credit and profit reinvestment substituted for financial markets. The mechanism of self-help supported increasingly sophisticated transactions, at least in the early years of transition.

STATE SUPPORT FOR ENTREPRENEURSHIP

Self-help in creating market institutions is not a permanent solution for entrepreneurs. It faces a number of natural limits.

First, the development of the market as the transition proceeds lowers the costs of searching out new trading partners, which weakens a firm's threat to cut off dealings if a trading partner reneges on a deal. The cost of breaking a relationship falls. Firms then become less willing to cooperate with each other, and the need for workable laws of contract and courts able to enforce them becomes more pressing.

Second, repeated games entail personalized interfirm relationships. When firms are small, they need only deal with customers and suppliers with whom they have a particular connection: those located nearby, or managed by a friend or relative, or coming via personal recommendations. Firms were able to some extent to overcome these limitations, as noted above: even in Vietnam they were able to trade at a distance. Such informal mechanisms are limited, however. To grow beyond a certain size, firms need to manage arm's-length anonymous dealings: for example, to begin trading with firms in distant cities rather than just with geographically nearby firms. Anonymous trades need a greater extent of formal contractual assurance.

Third, as products become more complex, there is an increased need to order them, and to commit to buy them, in advance of production. Without the courts, suppliers may be unwilling to switch to producing complex goods and services.

Fourth, although firms can for a while grow incrementally by investing their retained earnings, they reach a point where, to take advantage of economies of scale, they must make big discrete jumps in their investments. Having a long-delayed return, such investments are unlikely to be made on the basis of ongoing relationships. Sunk costs tempt someone to renege: a purchaser after the costs are sunk may renegotiate the buying price, or the government after the costs are sunk may impose a specific tax. Large-scale investments require legal protection.
Finally, as profits decline through the process of economic transition, while investments often become larger and longer term, firms can rely less on retained earnings to grow and increasingly need access to external finance.

A role for the government, even early in the transition, is to set a stable platform for entrepreneurs’ self-help. Macroeconomic instability, common at the beginning of a reform program, can undermine informal cooperation. Consider a trading relationship in which the seller allows the buyer to pay with a 30-day delay. In stable times, the ability to delay payment has a predictable value to the buyer and cost to the seller. The value of continuing the relationship is also predictable. The level of credit offered can be set in such a way that repayment is in the seller’s interest. But now suppose that, after the goods are delivered by the seller, there is some unforeseen shock that increases the value to the buyer of not making the required payment and affects only the trading partners’ current payoffs, not the stream of future gains from the relationship (such as a sharp decrease in bank credit or a rapid decline in the buyer’s demand). If the shock makes the gains from reneging large enough, the buyer will not pay.8

Risks were inherent in any trading relationship in all the transition countries, but the policies of some governments magnified them. Unstable macroeconomic conditions made it harder to predict the behavior of trading partners. High and variable rates of inflation and economic growth led to fluctuations in a trading partner’s gain from breaking the cooperative relationship. Macroeconomic stability was conducive to the development of informal trading relationships. On this score, countries like Slovakia, where inflation peaked in 1991 at 35 percent, and Poland, where inflation peaked in 1990 at 75 percent, fared well. Russia and Ukraine, where price stability was longer in coming, fared worse. Of course, the lack of entry in Russia and Ukraine may have contributed to macroeconomic instability as well as the other way around. We know of no data that would allow us to separate the directions of causation. But given the importance of informal trading arrangements early in the transition, theory suggests that, by making relationships harder to establish, macroeconomic instability created a barrier to entry.

While contracting is mainly supported by informal relationships among firms, the courts also foster it. The courts in the transition economies are still inadequate; it takes a long time to build a well-functioning legal system. The evidence shows, however, that even these highly imperfect courts facilitate doing business. Managers of startup firms were asked in a 1997 survey whether they could appeal to the courts to enforce a contract with a trading partner. In Poland, 73 percent said they could, and in Russia 56 percent said they could. Belief in the courts affects behavior. Those who say the courts are effective offer more trade credit and are more willing to take on new trading partners (Johnson, McMillan, and Woodruff 2002a; see also Frye and Shleifer 1997; Hendley, Murrell, and Ryterman 1999). By making it easier for new firms to enter, workable courts improve on relational contracting and boost overall productivity. Even weak courts can be useful.

The absence of well-functioning credit markets matters less early in transition than later. In place of external funds, firms reinvest from their own profits. The high profits mean that entrepreneurs have the resources they need for expansion, without
need to borrow. Retained earnings has been the biggest single source of investible funds for startup firms in transition economies. In addition, where interfirm relationships are working well, firms receive trade credit from their suppliers. Trade credit was almost nonexistent among Russian firms as of 1997, but in Poland it was as large a source of firms’ capital as bank loans (Johnson, McMillan, and Woodruff 2002b). As entry occurs and profit rates are driven downward, however, credit markets become more important. In Vietnam, there is some evidence that credit markets were beginning to reach new private firms: 24 percent of firms in a 1997 survey reported having bank credit, up from 8 percent in 1991 (Hemlin, Ramanurthy, and Ronnás 1998).

An alternative source of capital is equity markets. State support is needed for an equity market to develop. In Poland, a regulatory agency that intervened to protect minority shareholders from expropriation by insiders allowed the stock market to develop rapidly (Glaeser, Johnson, and Shleifer 2001). New issues were offered regularly. In the Czech Republic, by contrast, the absence of regulatory oversight meant people were, rightly, reluctant to invest in firms because they feared the managers would misappropriate their money, and so the stock market stayed inactive. Why is regulation needed for equity markets? Informal creation of share ownership is difficult. Fixed costs of issuing shares to a large group of investors prevent a slow buildup of the relationship, with investors testing entrepreneurs as trading partners in Vietnam reported doing. Because outside shareholders lack information on the firm’s internal affairs, managers can easily expropriate the returns owed to the shareholders (Johnson and Shleifer 2001). Prospective shareholders need legal and regulatory protection before they are willing to hand their money over to firms.

Entrepreneurs running de novo startups in Poland reported that an average of 25 percent of their equity capital was owned by private firms or people other than the top manager’s family. This is a somewhat higher level of outside ownership than other countries for which such data are available: Vietnam, at 19 percent; Slovakia, 19 percent; and Romania, 14 percent (Johnson, McMillan, and Woodruff 2000; McMillan and Woodruff 1999b). The lesson, once again, is that informal mechanisms work only up to a point. Investors are willing to entrust their money to managers they have some reason to believe in, perhaps because of ties of family or ethnicity or because the manager comes recommended by a trusted third party. Large firms with diversified shareholding cannot develop by such informal mechanisms; but some degree of outside ownership can.

Evidence that self-help mechanisms in financial markets have limits comes from Earle and Sakova’s (2000) study of entrepreneurship in Poland, Russia, and four other Eastern European countries. Employers, as compared to wage workers, are more likely to have received property during posttransition restitution and to have had higher earnings in 1988. Also, the parents of those who became employers were more likely to have owned a business prior to communism and were more likely to have had a university degree than are the parents of wage workers. These findings suggest that access to capital was a binding constraint on entry, one not entirely overcome by informal credit.

China did things differently with its new firms. Entry occurred in the nonstandard form of the township and village enterprises (Che and Qian 1998; Whiting 1996).
These firms were publicly owned by communities of a few thousand people. They were managed by the village government, and the profits were shared between villagers and local government by explicit rules. Around 60 percent were reinvested, and the remainder was paid as bonuses to workers or used for local public goods such as education, roads, and irrigation. Managerial discipline in the township and village enterprises came from the fact that these enterprises had no access to government subsidies to cover any losses and faced intensely competitive product markets.

The township and village enterprises received some benefits from having the village government as a partner. Access to state banks and to rationed inputs was eased. Public ownership helped remedy the lack of laws protecting against arbitrary expropriation by the state, as well as helping with contract enforcement. Moreover, China's local governments, arguably, did not sabotage their township and village enterprises by overtaxing them because they could see that if they did, the firms would fail and their own revenue source would be lost.

The township and village enterprise organizational form was a transitional device. After a decade and a half of growth, these enterprises began to be privatized. By the late 1990s, more than a half of them were partially or fully privately owned (Li and Rozelle 2000). By the turn of the century the township and village enterprises were well on their way to becoming conventional firms.

Entrepreneurs require more from the state, in the medium and long run, than the absence of interference. If firms are to be able to grow to yield economies of scale, they need laws of contract so they can take on anonymous dealings and financial regulation so they can get bank loans and outside shareholding.

WELFARE EFFECTS OF ENTREPRENEURSHIP

The creation of jobs has been arguably the most important welfare benefit of the new entrants. Given the distortions and inefficiencies in the Communist planned economy, the old firms had to shed jobs during the transition, and new entrants were needed to take up the slack. New firms have usually been the fastest-growing segment in transition economies. In Poland and Russia, de novo manufacturing firms grew faster, invested at a higher rate, and generated faster employment growth than privatized firms (Belka and others 1995; Richter and Schaffer 1996; Johnson, McMillan, and Woodruff 2000). In Vietnam, the private sector created (in net terms) some 10 million jobs in the seven years from the start of reforms, while the state-owned and collective firms shed workers.

This pattern is repeated in most of the transition economies for which data exist. In Estonia, small privately owned firms—mostly startups—created almost all the new jobs between 1989 and 1994 (Haltiwanger and Vodopivec 2000). In Romania, 86 percent of de novo manufacturing firms created jobs between 1994 and 1996, while only 13 percent of privatized firms did so. In Slovakia, 79 percent of de novo firms grew, against 52 percent of privatized firms (Johnson, McMillan, and Woodruff 2000). Between 1990 and 1996, de novo firms in Bulgaria, Hungary, and Romania grew more quickly than privatized or state-owned firms (Bilsen and Konings 1998). Although they represented less than 3 percent of employment in the samples in Bulgaria and
Romania, de novo firms created more than half the new jobs. In a sample of firms from 25 transition countries, Carlin and others (2001) find that sales and employment grow faster in de novo firms than in privatized or state firms; they also find that productivity gains are smaller, probably reflecting the fact that new firms start at a higher level of efficiency than the state firms and thus have less room for productivity growth.

The key difference does not seem to be between state-owned and private firms but rather that de novo firms outgrew all other firms. Many studies find little difference between the performance of state-owned firms and privatized firms. The finding that de novo firms perform better than privatized and state-owned firms is not quite universal; however. The Johnson, McMillan, and Woodruff data show essentially no difference in the growth rates of startups and privatized firms in Russia and Ukraine. Lizal and Svejnar (2001) find that the rates of investment of private firms in the Czech Republic were somewhat lower on average than those of state-owned firms in the 1992–1998 time period and that small firms in the Czech Republic were credit constrained while large firms were not (which may explain in part their first finding). Taken as a whole, then, the evidence indicates that de novo firms were more dynamic than privatized state firms, except perhaps where the latter had favored access to capital.

Entrepreneurial firms provide other benefits. Small new firms are dynamic. They learn and change rapidly and thus provide a large number of independent experiments on how to do business. One measure of this dynamism is their job churning. In a study of Estonia, Haltiwanger and Vodopivec (2000) separate the net change in employment into the creation of new jobs by expanding firms and the destruction of existing jobs by shrinking firms. For state-owned firms, in the first half of the 1990s, job creation was small, and job destruction among these enterprises was large. In the private sector, there was a lot of job creation. Yet, surprisingly, the private sector also had higher rates of job destruction than the state-enterprise sector. These data indicate more flux in the private sector, with some firms expanding rapidly and others contracting. The simultaneous high rates of job creation and job destruction were especially pronounced among the smallest firms, those with fewer than 20 workers. This could be attributable to learning by the small firms, which is especially important in the transition setting, where costs and demands are subject to far wider uncertainty than in a stable economy.

New firms also provide competitive discipline for the preexisting firms. State-owned and privatized firms in Eastern Europe and the former Soviet Union are significantly more likely to have undergone restructuring if they faced competition (Carlin and others 2001; Djankov and Murrell 2002). In China through the 1980s, while the township and village enterprises burgeoned, the state firms’ markup of price over marginal cost fell by 15 percent; the increased competitiveness of the output market was associated with an increased total factor productivity for the state firms (Li 1997).

There is also some evidence that a transition economy’s overall performance is correlated with entry. Comparing economic growth rates of the different regions of Russia, Berkowitz, and DeJong (2001) find that the faster-growing regions have more entry of new firms.
IMPLICATIONS FOR POLICY

In the early 1990s, a common view among those advising the reforming countries was that the overriding objective was to get the government out. Once the prohibitions on market activity were abolished, the private sector would quickly take over. Later, in light of the grim performance of Russia and the rest of the former Soviet Union, this simple view was supplanted by a recognition that reforming an economy is exceedingly hard. Success requires a complex package of microeconomic reform, macroeconomic stability, and institution building.

Our analysis speaks to both views. On the one hand, it says there is something in the leave-it-to-the-market view. Profit-driven entrepreneurs can do a remarkable amount, even to the extent of creating temporary replacements for the key social institutions of property rights and contract.

On the other hand, our analysis says getting the government out achieves its aim only in a narrow set of circumstances. First, the self-help substitutes for market-supporting institutions work well only for firms that are small. Larger firms, dealing with many suppliers and customers and trading at a distance, cannot rely solely on personalized relationships to undergird their transactions. Therefore, formal institutions are needed both by privatized firms and, after a while, by startup firms if they are to grow to an efficient scale.

Second, policy does matter even at the level of the small startups, for the business environment must be reasonably stable and predictable if the shadow of the future is to give firms reason to be able to trust each other. If you keep your word only because of the prospect of future gains, you are more likely to renege when the business environment is very noisy. Corrupt bureaucrats and politicians, by extorting bribes, discourage entrepreneurs from investing (Johnson, McMillan, and Woodruff, 2002b). High and volatile inflation could undermine firms' attempts at self-help contracting. Mass privatization, by adding to the uncertainty about which lines of business are going to be profitable, might disrupt the nascent interfirm relationships.

The transition has been far more painful in some ex-Communist countries than in others. Relative success came in those countries where new market activities were quickly established. Ironically, and contrary to the leave-it-to-the-market view, markets arose faster where the government did not completely withdraw but rather set a stable platform. New firms entered and grew more slowly in Russia, where the government abruptly ceased controlling prices and rapidly privatized the state firms, than in China, where the government mostly continued doing what it had been doing before.

CONCLUSION

The importance of entrepreneurs in the transition economies is a reminder that the task of economic transition is not just a matter of government officials enacting
certain policies or setting certain rules of operation for the new economy. Entrepreneurs acted as reformers, too. Indeed, much of the task of devising the new ways of doing business in transition economies has been taken on by entrepreneurs.9

"By pursuing his own interest," Adam Smith famously wrote of the merchant, "he frequently promotes that of society more effectually than when he really intends to promote it" (Smith 1976, vol. 1: 477–78). The entrepreneurs in the transition countries exemplify Smith's dictum. Creating jobs, supplying consumer goods, constraining the market power of the state firms, and building reform momentum, they have produced real welfare gains.

REFERENCES

120 II. The Private Sector at Work: Cases from Around the World


NOTES

*We thank David Ahn, Simon Board, Simeon Djankov, Brad De Long, John Earle, Alan Krueger, Barry Naughton, Timothy Taylor, and Michael Waldman for helpful comments. John McMillan thanks the Stanford GSB for research support.

1Our focus will be on the state’s role in encouraging startup firms, not on efforts to create a market sector by revamping the old state firms; on that, see Djankov and Murrell (2002), Megginson and Netter (2001), and Nellis (2001).
6. The Central Role of Entrepreneurs in Transition Economies

2The U.S. data are from the National Survey of Small Business Finances (Federal Reserve Board of Governors, 1994). The NSSBF sampled 273 manufacturing firms with between 10 and 250 employees. The return on invested capital averages 15 percent. In the surveys of firms in the five Eastern European countries, however, profits as a percentage of assets were obtained in categories, with the lowest category being "negative" and the highest category being "41 percent or greater." When these categories are used with the U.S. data, the average return on invested capital is 9 percent rather than 15 percent. It is likely, then, that the data from Poland and Russia discussed in this section underestimate somewhat the return to capital.

3A word of caution about comparing the profit data from China on the one hand and Russia and Poland on the other: The Polish and Russian data are from surveys of about 300 manufacturers in each country in 1997 (Johnson, McMillan, and Woodruff 2002b). Firms were asked about profits in their first year of operation. Figure 6-1 shows the average profit rate of firms beginning operation in each year. As such, they are subject to possible recall and selection bias. The China data were gathered contemporaneously from firms operating at the time.

4The labor survey data indicate that the majority of the self-employed work for their own account. These workers may represent not robust entry but desperation in the face of unemployment (Earle and Sakova 2000). Nevertheless, in 1993 over 4 percent of Poland's work force were self-employed people who also hired others, a level much higher than in the other transition countries examined by Earle and Sakova.

5The Djankov and Nenova (2001) data also show that employment in small firms grew rapidly in Poland during the 1990s, from an average of 8 percent in 1990-1992 to 23 percent in 1996-1998. (Comparable data for Russia are not available.) For Russia small manufacturing firms are defined as those with fewer than 100 employees, rather than 50 as in Poland; hence the difference between Poland and Russia is understated. (The service sector data for Russia and Poland are from the World Development Indicators database.)

6Registration data from McKenzie (2000); employment data from Wolff (1999: 63). Joint ventures between state firms and foreign investors are included in the state sector. Beginning in 1993, statistics for collectives and private firms were combined. The increase of 2.4 million jobs is for private firms and collectives combined; however, it is reasonable to presume that collectives continued to decline (their output shrank from 2.7 percent of GDP in 1992 to 0.8 percent in 1998), meaning the employment increase is attributable to private firms.

7On the interaction between formal and informal contracting mechanisms, see Baker, Gibbons, and Murphy (1994).

8The situation we have in mind is similar to the Saloner and Rotemberg (1986) model of price wars during economic booms. In their model, collusion is most likely to break down in a boom when the demand for the product is high, because that is when an individual seller's gain from undercutting the group-maximizing price is highest. Hence collusion is harder to sustain in industries with more variable demand.

9On the parallel roles of bottom-up and top-down forces in developing market rules and procedures, see McMillan (2002).
The interaction between economic growth and poverty has long been a central theme of economics. An early and influential view of the development process was set out by Arthur Lewis (1954). According to that view, growth takes place against a backdrop of labor transfer from traditional subsistence agriculture to a modern sector, often tacitly assumed to be industrial and urban. In recent years, analysts have increasingly questioned whether such a process of intersectoral transfer must necessarily occur between the rural and urban sectors, or whether the rural non-farm sector can serve as an alternative to the modern urban sector. Closely related has been an interest in tracing the distributional consequences of a growing non-farm sector, especially the impact on poverty.¹

Present-day India offers a suitable setting in which to consider some of these classic questions. Starting in the 1980s and then with greater emphasis in the early years of the 1990s, the government of India introduced a number of economic reforms. Per capita economic growth picked up significantly following these reforms. By the second half of the 1990s, average growth rates of 5–6 percent a year had become the norm (and are viewed as more sustainable than the initial acceleration of growth during the 1980s). This performance is much higher than the “Hindu rate of growth” (around 2 percent a year) that had seemed the best possible in the decades before the reforms.

A number of questions have been raised with respect to India’s recent development path. To what degree has the country’s impressive economic performance actually translated into improved standards of living for the population, particularly in rural
areas where the bulk of the poor reside? What has been the contribution of the non-farm sector in driving higher living standards in rural areas, if indeed they have risen?

Such questions can be pursued on many fronts. Analysis of statistical data has always been a popular activity in India, thanks to a long tradition of data collection in the country. Recently, the National Sample Survey Organization (NSSO) has taken the very welcome step of making its household surveys publicly available at the unit record level. The NSSO data are not the only source available. Other important data collection efforts have been carried out by the National Centre for Applied Economic Research (NCAER), as well as innumerable, smaller-scale efforts. While the volume of work has been considerable and progress is being made, it is probably fair to state that, at this stage, a full answer to the questions raised above has not yet emerged. Research on this front continues.

A second important research front has been through the rich tradition of detailed case studies, usually village studies, carried out in India by researchers with a host of disciplinary backgrounds. Many studies have had a longitudinal dimension, and not a few have been specifically concerned with the question of how living standards have evolved over time. A common feature of many village studies is the close detail that they provide about their setting. In this way they have often been able to flesh out, or qualify, the broad findings from large-scale sample surveys. They have also been valuable in raising new questions for subsequent statistical analysis.

This chapter presents a detailed description of economic development in one village in Uttar Pradesh between the late 1950s and the early 1990s. Our specific interest is to study the possible role played by the rural non-farm sector in determining living standards. Our expectation is that the reforms of the 1990s, to the extent that they affected rural areas at all, are likely to have influenced the range and variety of economic activities taking place in rural areas: agricultural, but also non-agricultural. The general improvement in the Indian investment climate, ushered in by the reforms and still very much on the policy agenda, should translate into more opportunities for small and medium enterprises (SME) in both the formal and informal sectors. Many of the non-farm SMEs operate in rural areas, and we can thus hope to see an expansion of non-farm activities in rural areas. Will such a process be pro-poor? We investigate that question by looking at the record of the non-farm economy on poverty in Palanpur, a village in the state of Uttar Pradesh, north India, over a period of five decades before the introduction of reforms in the early 1990s. Our goal is to better understand the impact of an expanding rural non-farm economy on rural poverty.

The chapter first presents a brief description of the Palanpur study and examines the main forces of change for the village economy. Three such forces can be identified. First, between 1957 and 1993, the village population more than doubled. Second, agricultural practices have been transformed as a result of new technologies. Third, occupational diversification has been far-reaching. This latter process is the subject of our attention here. The third section of the chapter looks in some detail at the growing importance of "outside jobs" to the village and the factors that appear to influence access to such jobs.

We turn, in the fourth section, to a brief examination of the evolution of poverty in Palanpur and a basic profile of the poor in the village. We document a gradual and fairly steady decline in income-poverty over time. We show that despite this progress,
agricultural laborers and low-caste households have remained highly represented among the poor.

We consider, in the fifth section, the contribution that the non-farm economy has played in reducing poverty. We suggest that some "outside jobs" can be viewed as offering a safety net to the poorest of the poor. While they are not highly remunerative, they do help protect the poor from falling even further into poverty. The other, more attractive non-farm jobs have not typically gone to the poor; they lack the education, skills, contacts, and wealth to compete for those jobs that offer high and stable returns. We suggest that such non-farm jobs have been prone to "capture" by the non-poor in Palanpur and, as such, are not likely to have directly contributed in a major way to the reduction of poverty over time. However, that assessment does need to be nuanced in two important respects. First, we find evidence that as the non-farm sector has expanded over time, it has gradually come to involve more of the relatively poor in the village. The dynamic, marginal incidence of non-farm employment may well be more pro-poor than what a snapshot at any specific point in time might suggest. Second, despite steady population growth over time, and an accompanying decline in per capita land endowments, agricultural wages have risen in Palanpur. This is no doubt in part due to the labor-intensity of new agricultural technologies, but it is also likely that growth of the non-farm sector has contributed to a general tightening of labor markets, resulting in rising agricultural wages. Given the importance of agricultural labor to the poorest of the poor in Palanpur, the tightening of agricultural labor markets has been extremely important in raising living standards of the poor. The important role played by the non-farm sector in sustaining rising agricultural wages, in the face of continued population growth, merits wider recognition.

THE PALANPUR STUDY

Palanpur is a village in Moradabad District of west Uttar Pradesh in north India. The village has been the subject of study since 1957–58, when it was surveyed by the Agricultural Economics Research Centre (AERC) of the University of Delhi. The AERC resurveyed the village in 1962–63. In 1974–75, Christopher Bliss and Nicholas Stern selected Palanpur as a village in which to study the functioning of rural markets and the behavior of farmers, as well as factors that shape the role and impact of technical change (such as the green revolution). They spent just under a year residing in the village and collecting quantitative data, based on a set of questionnaires they designed and fielded, as well as qualitative information emerging out of informal discussion and observation. Bliss and Stern published a book based on their investigations (Bliss and Stern 1982), which has a primary focus on the 1974–75 survey year.

A fourth survey of Palanpur took place in 1983–84 when Jean Drèze and Naresh Sharma, in close consultation with Bliss and Stern, lived in the village for 15 months, once again collecting data for the entire village population. The most recent resurvey of the village, once again by Drèze and Sharma, was conducted in 1993. This survey was carried out over a shorter period and is consequently somewhat less comprehensive. In particular, the 1993 survey did not collect income data, and our discussions below of income sources and levels thus refer only to the first four survey years in the
study period. Shorter revisits to Palanpur have occurred on many occasions between
the major survey years. One of the most recent of these was by Nicholas Stern in late
November 2000.

A considerable body of research output has emerged from the Palanpur study. A
recent edited volume by Lanjouw and Stern (1998b) brings together a set of these
studies and attempts to synthesize the main findings of the overall project. This vol-

tume touches on most of the themes discussed in the earlier book by Bliss and Stern
(1982), but includes a more explicit focus on outcomes and processes of change over
the entire period from 1957–58 to 1993. The material in this chapter is taken largely
from the various contributions included in Lanjouw and Stern (1998b), and the reader
is referred to that study for further details on what, for reasons of space, will often have
to be rather cursory treatment here.

Snapshot of the Village in 1993

At the beginning of the last survey (in mid-1993), Palanpur had a population of
1,133 people, divided into 193 households (Table 7-1). Hindus represented 87.5 percent
of the village population, and Muslims the remaining 12.5 percent. Hindus were
divided into six main castes (ranging from 14 to 48 households in size), and three
minor castes of three households or less (Table 7-2). The shares of Hindus and Muslims
in the total population, and the relative sizes of the main castes, have remained fairly
stable throughout the survey period.

Three castes—Thakurs, Muraos, and Jatubs—can be seen, in many respects, as the
main players in Palanpur’s economy and society. The other castes are numerically
smaller and also tend to be less cohesive, so that their collective influence on the
village economy and society is more restricted. At risk of caricaturing somewhat,
Thakurs can be viewed as representative of Uttar Pradesh’s traditional martial castes,

Table 7-1 A Village Profile of Palanpur, 1993

| Location | 13 kilometres north of Chandausi, a small town in the Moradabad district, in Uttar Pradesh |
| Population | 1,133 |
| Number of households | 193 |
| Proportion of Muslims (%) | 12.5 |
| Main Hindu castes* | Thakur, Muraos, Dhimar, Gadaria, Passi, Jatubs |
| Literacy rate, age 7+ (%) |  |
| Female | 9 |
| Male | 37 |
| Main economic activities | Agriculture, livestock, wage employment outside the village |
| Total land ownedb | 2,383 bighas (372 acres) |
| Proportion of landless households (%) | 23 |
| Proportion of land irrigated (%) | 96 |
| Main crops | Wheat, rice, sugarcane, bajra, jowar, vegetables, pulses |
| Main public amenities | Primary school, railway station, temple, well, pond |

*On the size and other characteristics of different castes, see Table 7-2.

bNot including residential plots.

Source: Drèze and Sharma 1998.
<table>
<thead>
<tr>
<th>Caste</th>
<th>Number of individuals and households(^a)</th>
<th>Traditional caste occupation</th>
<th>Main current occupation(^b)</th>
<th>Annual growth rate of population, 1983-84(^c)</th>
<th>Literacy rate, age 7+ (percentage)</th>
<th>Land owned per capita(^d) (bighas)</th>
<th>Percentage of households with at least one regular job</th>
<th>Per capita income, 1983-84 (Rs/\text{year})</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thakur</td>
<td>283 (48)</td>
<td>Warriors</td>
<td>CT, RJ</td>
<td>2.8 (2.7)</td>
<td>56 19</td>
<td>2.4 (1.9)</td>
<td>21</td>
<td>1,119</td>
</tr>
<tr>
<td>2. Murao</td>
<td>294 (44)</td>
<td>Cultivators</td>
<td>CT</td>
<td>2.6 (2.7)</td>
<td>39 2</td>
<td>3.5 (3.5)</td>
<td>14</td>
<td>1,265</td>
</tr>
<tr>
<td>3. Dhimar</td>
<td>82 (14)</td>
<td>Water-carriers</td>
<td>CT, RJ</td>
<td>1.1 (1.6)</td>
<td>35 8</td>
<td>0.5 (1.3)</td>
<td>36</td>
<td>1,026</td>
</tr>
<tr>
<td>4. Gadaria</td>
<td>89 (14)</td>
<td>Shepherds</td>
<td>CT, RJ</td>
<td>2.1 (2.5)</td>
<td>26 11</td>
<td>1.9 (2.2)</td>
<td>7</td>
<td>1,112</td>
</tr>
<tr>
<td>5. Dhobi(^f)</td>
<td>31 (5)</td>
<td>Washermen</td>
<td>CT, RJ, CL</td>
<td>4.6 (n.a.)</td>
<td>15 0</td>
<td>1.6 (2.0)</td>
<td>0</td>
<td>922</td>
</tr>
<tr>
<td>6. Teli(^f)</td>
<td>109 (20)</td>
<td>Oil-pressers</td>
<td>CT, RJ, CL</td>
<td>2.3 (2.2)</td>
<td>21 3</td>
<td>1.1 (1.9)</td>
<td>15</td>
<td>784</td>
</tr>
<tr>
<td>7. Passi(^f)</td>
<td>62 (15)</td>
<td>Mat-makers</td>
<td>CT, RJ</td>
<td>0.3 (1.2)</td>
<td>46 7</td>
<td>1.3 (0.6)</td>
<td>13</td>
<td>1,202</td>
</tr>
<tr>
<td>8. Jatab(^f)</td>
<td>133 (24)</td>
<td>Leather workers</td>
<td>CT, CL</td>
<td>1.7 (2.0)</td>
<td>12 0</td>
<td>1.3 (1.4)</td>
<td>0</td>
<td>436</td>
</tr>
<tr>
<td>9. Other</td>
<td>50 (9)</td>
<td>Miscellaneous</td>
<td>RJ, SE</td>
<td>1.5 (–1.3)</td>
<td>57 29</td>
<td>0.5 (0.8)</td>
<td>44</td>
<td>1,023</td>
</tr>
<tr>
<td>All castes</td>
<td>1,133 (193)</td>
<td>Miscellaneous</td>
<td>CT, RJ, CL</td>
<td>2.1 (2.3)</td>
<td>33 8</td>
<td>2.1 (2.1)</td>
<td>17</td>
<td>1,025</td>
</tr>
</tbody>
</table>

Note: The arrangement of castes in this table follows Bliss and Stern 1982. The term "regular job" refers to wage employment with monthly salary and some security of employment.

\(^a\) Number of households in parentheses.

\(^b\) CT = cultivation; CL = casual labor; RJ = regular job; SE = self-employment.

\(^c\) In parentheses, migration-adjusted population growth rates (see chapter 1 of Lanjouw and Stern 1998b for details).

\(^d\) In parentheses, land cultivated per capita (bighas).

\(^e\) Muslims.

\(^f\) Scheduled caste.

Source: Drèze and Sharma 1998.
Munos comprise the cultivating castes, often occupying a central position in the village economy, and the Jatabs represent the largest group among the “scheduled castes.”

Scheduled castes on aggregate (comprising a wide range of groups, including Jatabs), account for nearly one-quarter of the population of Uttar Pradesh.

The economy of Palanpur is essentially one of small farmers. The proportion of landless households (23 percent) is relatively small by Indian standards and there are no clearly outstanding large farmers. The bulk of economic activity is in agriculture, both in cultivation and in agricultural wage labor, but a non-negligible share of village income also comes from wage employment outside the village. The economy is by and large a market economy, with few restrictions on production and exchange. However, factors such as incomplete markets, imperfect information, transactions costs, and extra-economic coercion are also important features of the village economy.

**Income Growth, 1957-58 to 1983-84**

The growth rate of private incomes in Palanpur is not easy to assess, for several reasons. First, the coverage of income sources and the method used for calculating household incomes were not exactly the same for each survey, although the estimates for each survey year were based on the same notion of income as net returns to all household assets. While some error certainly remains in individual income estimates, the individual errors are not likely to invalidate comparisons of per capita incomes between different years. Second, nominal income figures for each year must be deflated by a price index to become comparable, and the resulting real income estimates can be quite sensitive to choice of index. Sensitivity analysis to different price indices revealed, however, that in our context broad observations were quite robust. Finally, it is important to note that private incomes can fluctuate a great deal from year to year, as a result of the varying quality of harvest. Available evidence suggests that the harvest was fair in 1957-58, poor in 1962-63, good in 1974-75, and poor in 1983-84. The impact on incomes of harvest fluctuations depends both on the quality of the harvest and on price fluctuations. In Palanpur, prices sometimes, but not always, moved to offset the impact on incomes of harvest fluctuations. Crop failure was as often a household-specific event as a village- or even district-wide phenomenon (due to plot-specific pest attacks, for example). These fluctuations in the quality of harvest must be borne in mind while examining income trends and related economic changes in Palanpur.

Bearing these qualifications in mind, Table 7-3 presents income levels for the survey years from 1957-58 to 1983-84.

Real per capita incomes in Palanpur grew between 1957-58 and 1983-84, but not rapidly. Without any correction for fluctuating harvest quality, real per capita incomes grew by 1.4 percent. One way of adjusting for harvest quality is to estimate the growth rate between the 1957-63 subperiod and the 1974-83 subperiod (where each subperiod is the simple average of the two respective survey years, and each pair includes one good and one poor agricultural year). The trend growth rate calculated in this way is about 2.2 percent. Irrespective of the type of adjustment, economic growth in Palanpur was sluggish, as in most parts of India during this period. Even so, per capita
Table 7-3  Real Incomes in Palanpur, 1957–84

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita income at current prices (Rs/year)</td>
<td>173</td>
<td>149</td>
<td>1,039</td>
<td>1,025</td>
</tr>
<tr>
<td>Index of per capita income at current prices (1957–58 = 100)</td>
<td>100</td>
<td>86</td>
<td>602</td>
<td>594</td>
</tr>
<tr>
<td>Real per capita income at 1960–61 prices*</td>
<td>161</td>
<td>152</td>
<td>275</td>
<td>194</td>
</tr>
<tr>
<td>Inequality indices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini coefficient</td>
<td>0.336</td>
<td>0.390</td>
<td>0.253</td>
<td>0.307</td>
</tr>
<tr>
<td>Coefficient of variation</td>
<td>0.649</td>
<td>0.871</td>
<td>0.504</td>
<td>0.545</td>
</tr>
<tr>
<td>Atkinson index ( (e = 1) )</td>
<td>0.178</td>
<td>0.251</td>
<td>0.105</td>
<td>0.158</td>
</tr>
<tr>
<td>Atkinson index ( (e = 2) )</td>
<td>0.338</td>
<td>0.485</td>
<td>0.206</td>
<td>0.342</td>
</tr>
<tr>
<td>Atkinson index ( (e = 5) )</td>
<td>0.647</td>
<td>0.821</td>
<td>0.483</td>
<td>0.741</td>
</tr>
<tr>
<td>Poverty indices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head-count index</td>
<td>0.47</td>
<td>0.54</td>
<td>0.11</td>
<td>0.34</td>
</tr>
<tr>
<td>Poverty-gap index</td>
<td>0.18</td>
<td>0.24</td>
<td>0.03</td>
<td>0.12</td>
</tr>
<tr>
<td>Squared-poverty-gap index</td>
<td>0.09</td>
<td>0.14</td>
<td>0.02</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Note: The inequality and poverty indices appearing in this table are based on treating each individual as one observation, with each individual within a household having the same per capita income.

*Calculated by deflating the nominal per capita income figures by the Consumer Price Index for Agricultural Labourers for Uttar Pradesh, with 1960–61 as the base.


income growth in Palanpur is widely acknowledged by villagers themselves to have resulted in an expansion of purchasing power.

Forces of Change

As has already been noted, there have essentially been three, largely exogenous forces of change that have exercised a profound influence on the Palanpur economy. These are population growth, agricultural change, and occupational diversification.

Population Growth

Between 1957–58 and 1993, the population of Palanpur roughly doubled (Table 7-4).11 This has presented the village with a crucial challenge, given that the amount of land has remained more or less constant over the same period. By 1993, land owned per person had declined to no more than 0.33 acres. This implies that, if Palanpur farmers had retained the same cultivation practices as in the 1950s, total agricultural output would be equal to no more than 125 kg of grain per person per year. Because of population growth, it was simply not possible for villagers to maintain the same occupational patterns and technological practices as in the 1950s.12

Agricultural Change

Technological change in agriculture has occurred in three important respects: an expansion in irrigation (from about half the village land in 1957–58 to virtually all by 1974–75); the adoption of modern cultivating practices involving new seeds, chemical fertilizers, better irrigation, and higher yields;13 and some mechanization toward the end of the survey period. The first two aspects of technological change can be seen
Table 7-4 Palanpur: Population in Different Survey Years

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>528</td>
<td>585</td>
<td>790</td>
<td>960</td>
<td>1,133</td>
</tr>
<tr>
<td>Number of households</td>
<td>100</td>
<td>106</td>
<td>117</td>
<td>143</td>
<td>193</td>
</tr>
<tr>
<td>Average household size</td>
<td>5.3</td>
<td>5.5</td>
<td>6.8</td>
<td>6.7</td>
<td>5.9</td>
</tr>
<tr>
<td>Female-male ratio</td>
<td>0.87</td>
<td>0.87</td>
<td>0.85</td>
<td>0.93</td>
<td>0.85</td>
</tr>
<tr>
<td>Annual growth rate of population</td>
<td>—</td>
<td>2.2</td>
<td>2.5</td>
<td>2.2</td>
<td>1.7</td>
</tr>
<tr>
<td>since previous survey* (%)</td>
<td>(2.3)</td>
<td>(2.7)</td>
<td>(1.9)</td>
<td>(2.2)</td>
<td></td>
</tr>
<tr>
<td>Age distribution of the population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–14</td>
<td>39</td>
<td>38</td>
<td>46</td>
<td>44</td>
<td>41</td>
</tr>
<tr>
<td>15–24</td>
<td>21</td>
<td>19</td>
<td>15</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>25–44</td>
<td>23</td>
<td>25</td>
<td>25</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>45–64</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>65+</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Proportion of the population in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>different caste groups (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thakur</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Murao</td>
<td>22</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Muslim</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Jatua</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>34</td>
<td>31</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Proportion of households of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>different typea</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-person</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Nuclear</td>
<td>45</td>
<td>44</td>
<td>41</td>
<td>44</td>
<td>54</td>
</tr>
<tr>
<td>Stem</td>
<td>28</td>
<td>28</td>
<td>29</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>Joint</td>
<td>21</td>
<td>22</td>
<td>26</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: The 1974-75 population includes six households excluded by Bliss and Stern (1982) on the grounds that these households were not involved in cultivation.

*In parentheses, the corresponding "migration-adjusted growth rate," defined as the population growth rate for the set of households that stayed in the village throughout the survey period.


as land-augmenting technological change (permitting double-cropping, for example), while the last is more clearly associated with labor displacement.

Technological change in agriculture has been associated with dramatic increases in yields (Table 7-5) between 1957-58 and 1983-84. Wheat yields (the principal crop grown in the winter season) have more than doubled, and even more dramatic improvements have been recorded for paddy (one, among several, important summer crops). It is clear that in the face of sharp population growth, these changes in agricultural practices have been vital in preventing incomes from collapsing. However, while these achievements are remarkable, it would be misleading to imply that cultivation in Palanpur is now on the frontier in terms of best-practice techniques. In fact, there is still much room for improvement. Palanpur farmers tend to sow late (especially with the expansion of double-cropping, which puts greater time pressure on land preparation); they usually sow second-rate or adulterated seeds; and they are casual about other cultivation-related details, such as weeding and application of fertilizer. These shortfalls are associated with suboptimal investment levels (linked to the operation of the credit market) and slow innovation (linked to poor basic education levels).
### Table 7-5 Cultivation Details for Selected Major Crops in Palanpur

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WHEAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area cultivated (bighas)</td>
<td>879</td>
<td>767</td>
<td>1030</td>
<td>1573</td>
</tr>
<tr>
<td>% of total cultivated area</td>
<td>52</td>
<td>48</td>
<td>46</td>
<td>57</td>
</tr>
<tr>
<td>Yield (kg/bigha)</td>
<td>41</td>
<td>41</td>
<td>114</td>
<td>101</td>
</tr>
<tr>
<td>Real output value/bigha</td>
<td>16.46</td>
<td>22.07</td>
<td>41.17</td>
<td>26.53</td>
</tr>
<tr>
<td>PADDY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area cultivated (bighas)</td>
<td>70</td>
<td>274</td>
<td>125</td>
<td>266</td>
</tr>
<tr>
<td>% of total cultivated area</td>
<td>5</td>
<td>17</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Yield (kg/bigha)</td>
<td>11</td>
<td>26</td>
<td>103</td>
<td>130</td>
</tr>
<tr>
<td>Real output value/bigha</td>
<td>2.13</td>
<td>9.77</td>
<td>32.63</td>
<td>34.32</td>
</tr>
<tr>
<td>BAJRA (MILLET)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area cultivated (bighas)</td>
<td>644</td>
<td>638</td>
<td>610</td>
<td>137</td>
</tr>
<tr>
<td>% of total cultivated area</td>
<td>46</td>
<td>40</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Yield (kg/bigha)</td>
<td>34</td>
<td>27</td>
<td>59</td>
<td>48</td>
</tr>
<tr>
<td>Real output value/bigha</td>
<td>10.16</td>
<td>11.76</td>
<td>20.05</td>
<td>11.69</td>
</tr>
</tbody>
</table>

Note: The average yield figures for 1962–63 are somewhat misleading in that they exclude cases of zero output, which were not uncommon in that year due to total crop failure on a number of plots. The true average yields, inclusive of cases of zero output, would be lower.

The figures in parentheses include plots sown with mixed crops. In these cases, the area figures are upper bounds on the effective areas.

The proportion of area cultivated refers to percentage of area under the specified crop for the relevant season (rabi for wheat; kharif for paddy and bajra).

b) % of total cultivated area refers to percentage of area under the specified crop for the relevant season (rabi for wheat; kharif for paddy and bajra).

c) Real values are obtained by deflating with price deflators used elsewhere based on the Consumer Price Index for Agricultural Labourers (CPIAL) for Uttar Pradesh. All values are in 1960–61 rupees.


**Occupational Diversification**

The third main force of change in Palanpur has been the marked expansion of income opportunities outside of agriculture. Economic development is often viewed in terms of the transfer of labor from the traditional low-productivity sector to the modern, high-productivity sector. In Palanpur two related trends have taken place. First, there has been a steady weakening of the traditional caste-based pattern of occupations. By 1993, among castes other than the Muraos, only three households in Palanpur (a barber, a sweeper, and a carpenter) were engaged in their traditional occupation in the strictest sense of the term. Essentially, each caste is now engaged in some combination of cultivation and (mainly non-agricultural) wage employment.

The second major development on the occupational front has been the expansion of non-agricultural wage employment in Palanpur. This has mainly taken the form of regular or semi-regular employment outside the village. This is distinguished from "casual" daily wage employment by a modicum of employment security, and usually involves monthly as opposed to daily wage payments. The distinction between regular and semi-regular employment in this chapter relates essentially to the notion that the former implies secure employment, locally known as "service" (naukree), often in the form of permanent positions in the public sector.
In Palanpur, wage employment outside the village usually involves commuting on a daily basis to the nearby towns within the district. Much of the commuting occurs by train, as a railway line runs by the village. Although relatively few trains actually stop in Palanpur, villagers with jobs in the nearby towns of Chandausi or Moradabad are usually able to catch a morning outbound and evening return train so that they can continue to reside in Palanpur and maintain an involvement in village economic and social life. With the exception of the railways, most employment outside the village occurs in the private sector. Work conditions in the railways tend to be relatively undemanding, but in the private sector, wage employment often involves long hours, night shifts, and a fast pace of work. Even so, regular non-farm employment is much sought after by villagers in Palanpur, particularly among the younger adult males in the village, and such indications of excess demand for employment in the non-agricultural sector raise the question as to how these are allocated. We return to this question below.

The Growth of Outside Jobs

Tables 7-6 and 7-7 present information on wage employment outside the village ("outside jobs," for short) in each survey year. The focus of these tables is on wage

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular jobs involving good education or skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mechanic</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Electrician</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Insurance salesman</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cook</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Skilled work in bakery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Clerk in factory</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accountant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Regular jobs involving limited training or skills</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chowkidar (watchman)</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Permanent railway employee</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Non-permanent railway employee</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Permanent servant</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cloth mill employee</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>17</td>
<td>closed</td>
</tr>
<tr>
<td>Cane center employee</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bakery employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Security guard or policeman</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Coal depot employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sugar mill employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bank employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Press employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Permanent coolie</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sweeper</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Service in tehsil</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unspecified regular job</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>10</td>
<td>37</td>
<td>57</td>
<td>32</td>
</tr>
</tbody>
</table>

### Table 7-7 Semi-Regular and Seasonal Wage Employment Outside Agriculture, 1957-93 (number of persons with the stated job)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEMI-REGULAR AND SEASONAL JOBS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>involving training or skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tailoring in shop</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Temporary teacher</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Angawadi manager</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>SEMI-REGULAR AND SEASONAL JOBS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>involving limited skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar cane factory employee</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Oil mill employee</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Chowkidar (watchman)</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Steel-polish worker</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Flour mill employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Cookie</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Helper in shop</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Liquor factory employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Coal depot employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Salesman</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Domestic servant</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cement shop employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Ice factory employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Peppermint factory employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Operating marble machine</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Silverware factory employee</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Assistant to doctor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Unspecified</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>17</td>
<td>25</td>
</tr>
</tbody>
</table>

Note: Data for semi-regular occupations in 1974-75 were not complete, and for that year the figures provided are likely to underestimate the incidence of such occupations.


As Table 7-6 indicates, the number of regular jobs held by Palanpur households outside the village increased from only 9 in 1957-58 to as many as 57 in 1983-84, before declining again to 32 in 1993. Semi-regular and seasonal wage employment expanded significantly from each survey year to the next, including between 1983-84 and 1993. Regular outside jobs are regarded as very desirable employment opportunities by most villagers. This attitude is not difficult to understand. Earnings from regular jobs outside Palanpur are high by village standards, and equally importantly, they
Villagers frequently comment on the harshness and frugality of peasant life compared with the soft and affluent lifestyle of those who have made it in the urban labor market. While there is no doubt some truth to this, it is also the case that some of the regular outside jobs in question are physically demanding and involve serious health hazards. The share of outside job income in total village income rose from 12 percent in 1962–63 to 15 percent in 1974–75 and 34 percent in 1983–84. Recall that we do not have income data for 1993 and are therefore unable to comment on the importance of outside job income in that year.

The growth of outside jobs represents an expansion of opportunities that has been seized by many in Palanpur, both better-off and worse-off. The distribution of outside employment opportunities has shown clear patterns, perhaps the most important being that they tend to cluster around well-defined locations and socio-economic groups. Certainly in 1974–75 and 1983–84, a small number of employers account for the majority of outside jobs. These include a cloth mill in Moradabad, bakeries in Chandausi, a liquor bottling plant, steel-polish workshops in Moradabad, and the railways. Similarly, the composition of the group of employees shows identifiable subgroups: Jatabs have virtually no involvement in regular outside jobs, Passis had a heavy share of semi-regular jobs in steel-polish workshops in Moradabad in 1983–84, while in the same year young Thakur men were found mainly in bakeries. This phenomenon reflects the nature of the job search process in this segment of the labor market, which operates through “contacts” rather than through “impersonal” search by prospective employees (or employers). 16 Those who have already secured a job outside the village are usually in a privileged position to help their friends, relatives, or fellow caste members take advantage of possible vacancies in their own place of employment; and employers themselves often use their existing employees as recruiting agents. This kind of search is in sharp contrast to labor market models where all searchers have equal opportunities to fill new vacancies.17

In one respect, Palanpur is somewhat better placed than the “average” village in the area as regards access to outside employment opportunities: its location near the railway line. However, reasonable connections with urban areas are by no means unusual in this area, where in most villages a significant proportion of adult males commute to nearby towns by train, bus, cart, or bicycle. Moreover, a significant involvement in the labor market outside the village is now a widespread phenomenon in large parts of rural India.18 Of course, the exact nature of those employment opportunities varies a great deal from region to region.

The growth of outside jobs may be seen as part of a process of intersectoral transfer of the labor force from agriculture but, as mentioned earlier, it is associated with commuting of some household members out of the village and a shift in the balance of activities within the household. What we observe, from the household (and village) perspective, is commuting and diversification, not migration and exit from agriculture.

The radius within which employment outside the village takes place seems to have progressively increased. While in 1957–58 most outside employment occurred in the railways, in nearby villages or in Chandausi, the network of outside jobs had expanded considerably by 1983–84 and 1993. Palanpur villagers now have a strong involvement
in the labor market of Moradabad and several of them work in a number of other nearby towns such as Sambhal and Bhejoi. Some villagers have found jobs as far as Nainital, Delhi, the Punjab, and even Bhopal in Madhya Pradesh. These more distant jobs do entail migration, on either a permanent or a semi-permanent basis. The process of diversification, apart from generally sustaining incomes by providing new income sources, has also introduced a stronger element of stability in incomes and reduced the vulnerability of income earning in the village to weather conditions and pests. A diversified "household portfolio" of jobs is key in cushioning against uncertainty, and may be as helpful against sudden loss of some specific non-farm job (see below) as against agricultural shocks.

Outside jobs can have a pronounced impact on the economy and living standards of a village such as Palanpur through numerous routes. Some of these may be linked only indirectly to earnings from such employment. It has been argued that a reduction in the covariance of household incomes, as brought about by the spread of outside jobs, for example, can be of importance in promoting the viability of credit or insurance arrangements. Such arrangements exist, at least in part, to offer villagers the means to smooth expenditures in the face of fluctuating incomes. If incomes for different households fluctuate in concert, then demands from individual households for loans or insurance payments will increase together, and any agent seeking to offer such a service may encounter serious liquidity problems. We will examine below how far the degree to which incomes "covary" in Palanpur has fallen, and we suggest that this may be associated with the expansion of outside earnings.

Before turning to an analysis of the determinants of outside employment and incomes, we should comment briefly on the decline of regular outside employment at the end of the survey period. As Table 7-6 indicates, the number of regular outside jobs declined from 57 to 32 between 1983-84 and 1993. However, taking regular and semi-regular employment together (the latter having continued to expand), we find that the decline of outside wage employment between 1983-84 and 1993 is entirely accounted for by the closure of local cloth mills. This development has had an important impact in Palanpur, where as many as 17 adult males were employees of these cloth mills in 1983-84, but it is not necessarily symptomatic of a general decline in non-farm employment in the area. Further, it should be borne in mind that by the end of the survey period, the radius of wage employment outside the village had expanded considerably, with temporary migration (as opposed to commuting) playing an increasingly important role. For instance, in 1993 quite a few adult males from Palanpur had found employment in Delhi, and these adult males are not included in the village census; by implication, their jobs are not included in Tables 7-6 and 7-7. In short, we have no strong evidence of generalized and sustained decline in outside wage employment after 1983-84, even though the closure of local cloth mills is an important problem for Palanpur villagers in the short term.

The Determinants of Outside Employment and Incomes

We noted above that there are patterns to the gaining of outside jobs. In this section we examine those patterns in a slightly more formal way using some simple models.
In Table 7-8 we present results from three probit regressions exploring the determinants of outside job employment. Table 7-8a provides basic descriptive statistics of the variables included in our model, while Table 7-8b presents the estimation results. For 1974–75 we examine the relationship between certain household characteristics and the probability of having at least one member employed in a regular outside job. For 1983–84 and 1993 we are able to examine employment data at the level of the individual to investigate the determinants of outside employment.

In 1974–75, the significant variables are land owned per household, the number of adult males in the household, and the Jatab dummy. The likelihood of a household having at least one member regularly employed outside agriculture decreased with land owned and was lower for households of the Jatab caste. Households with more adult males were more likely to have an outside job (as one might expect, since an extra person provides an extra chance). The dummies for Murao and Thakur castes did not contribute to the explanation of the probability of outside employment.

In 1983–84, the significant variables were land owned per household, the number of adult males, years of completed schooling of the individual with the outside job, and the dummy for the Jatab caste. Once again, land owned per household and the number of adult males contributed in a significant way to the probability of employment in a regular outside job (although note that now the data are at the individual level). Jatabs were less likely to have regular outside employment.

The more of years of schooling, the greater the probability that an individual would have a regular job in 1983–84. However, of the 57 Palanpur villagers with regular outside jobs, 27 had not had any formal schooling at all. As can be seen in Table 7-6, “regular” outside jobs comprise a heterogeneous group of activities, some of which apparently do not require formal qualifications.

While the coefficient on the Thakur dummy was insignificant for both 1974–75 and 1983–84, it switched in sign (from negative to positive) across the years. This switch accords with the impression that by 1983–84 individuals of this caste were

<table>
<thead>
<tr>
<th>Table 7-8a</th>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1974–75</td>
</tr>
<tr>
<td>Total observations</td>
<td>112</td>
</tr>
<tr>
<td>Regular job</td>
<td>0.34 0.23</td>
</tr>
<tr>
<td>Land owned per household</td>
<td>22.51 416.7</td>
</tr>
<tr>
<td>Number of adult males</td>
<td>1.99 1.99</td>
</tr>
<tr>
<td>Literate household member</td>
<td>0.17 0.14</td>
</tr>
<tr>
<td>Years of education</td>
<td>— —</td>
</tr>
<tr>
<td>Murao</td>
<td>0.24 0.19</td>
</tr>
<tr>
<td>Thakur</td>
<td>0.23 0.18</td>
</tr>
<tr>
<td>Pasi</td>
<td>0.07 0.07</td>
</tr>
<tr>
<td>Jatab</td>
<td>0.13 0.11</td>
</tr>
</tbody>
</table>

Note: For 1983–84 and 1993, the unit of observation is the individual, whereas for 1974–75 it is the household.
becoming increasingly interested in outside employment, perhaps as a way to counter their apparent decline in economic status within the village.

The results for 1993 are similar to those for 1983–84, though the fit is markedly lower and only the number of adult males is significant (though education is not far from significance). The less informative nature of the 1993 results may well reflect the fact that a large group of young men had lost their outside jobs in the cloth mills just before that year, as discussed in the previous section.

We turn next to an examination of the determinants of household earnings from regular outside jobs (Table 7-9). For this purpose we use the Tobit model. From the estimated coefficients in 1974–75, an additional bigha owned—about 0.15 acre—reduced household earnings from regular outside jobs by Rs. (rupees) 83 (at 1974–75 prices). An additional adult male increased regular outside job income by Rs. 1,403, while a household with at least one literate member, other things being equal, earned Rs. 2,225 more from regular outside employment. Controlling for other household characteristics, Thakur households tended to earn roughly Rs. 2,000 less than reference households from

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>1974–75</th>
<th>1983–84</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.78</td>
<td>-1.24</td>
<td>-1.67</td>
</tr>
<tr>
<td>(0.022)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Land owned per household</td>
<td>-0.03</td>
<td>-0.02</td>
<td>-0.01</td>
</tr>
<tr>
<td>(0.017)</td>
<td>(0.000)</td>
<td>(0.182)</td>
<td></td>
</tr>
<tr>
<td>Number of adult males</td>
<td>0.45</td>
<td>0.10</td>
<td>0.27</td>
</tr>
<tr>
<td>(0.003)</td>
<td>(0.036)</td>
<td>(0.004)</td>
<td></td>
</tr>
<tr>
<td>Literate household member (dummy)</td>
<td>0.61</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(0.146)</td>
<td>(0.120)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education of individual (years of schooling)</td>
<td>—</td>
<td>0.09</td>
<td>0.04</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.120)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murao</td>
<td>-0.28</td>
<td>-0.23</td>
<td>-0.12</td>
</tr>
<tr>
<td>(0.498)</td>
<td>(0.419)</td>
<td>(0.677)</td>
<td></td>
</tr>
<tr>
<td>Thakur</td>
<td>-0.53</td>
<td>0.11</td>
<td>0.16</td>
</tr>
<tr>
<td>(0.197)</td>
<td>(0.605)</td>
<td>(0.524)</td>
<td></td>
</tr>
<tr>
<td>Pasi</td>
<td>1.18</td>
<td>0.22</td>
<td>-0.11</td>
</tr>
<tr>
<td>(0.072)</td>
<td>(0.389)</td>
<td>(0.800)</td>
<td></td>
</tr>
<tr>
<td>Jatab</td>
<td>-0.95</td>
<td>-0.94</td>
<td>-5.69</td>
</tr>
<tr>
<td>(0.081)</td>
<td>(0.026)</td>
<td>(0.999)</td>
<td></td>
</tr>
<tr>
<td>Log likelihood (model)</td>
<td>-52.006</td>
<td>-151.474</td>
<td>-97.011</td>
</tr>
<tr>
<td>Log likelihood (constant)</td>
<td>-71.056</td>
<td>-175.803</td>
<td>-107.89</td>
</tr>
</tbody>
</table>

Note: For 1983–84 and 1993, the unit of observation is the individual, whereas for 1974–75 it is the household. For the 1983–84 and 1993 regressions, the household variables (land owned and number of adult males) apply to the household of which the relevant individual is a member.

Table 7-9 Tobit Results for Household Earnings from
Regular Outside Employment (estimated coefficients with
probability values in parentheses)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1974-75</th>
<th>1983-84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total observations¹</td>
<td>112</td>
<td>143</td>
</tr>
<tr>
<td>Observations at 0:</td>
<td>75</td>
<td>96</td>
</tr>
<tr>
<td>Observations &gt;0:</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td>Constant</td>
<td>-1,827</td>
<td>-3,439</td>
</tr>
<tr>
<td>(0.042)</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Land owned per household</td>
<td>-83</td>
<td>-94.3</td>
</tr>
<tr>
<td>(0.002)</td>
<td>(0.007)</td>
<td></td>
</tr>
<tr>
<td>Number of adult males</td>
<td>1,403</td>
<td>1,451</td>
</tr>
<tr>
<td>(0.000)</td>
<td>(0.000)</td>
<td></td>
</tr>
<tr>
<td>Literate household member</td>
<td>2,225</td>
<td>—</td>
</tr>
<tr>
<td>(0.022)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education of individualb</td>
<td>—</td>
<td>742</td>
</tr>
<tr>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Murao</td>
<td>-1,064</td>
<td>-2,130</td>
</tr>
<tr>
<td>(0.309)</td>
<td>(0.173)</td>
<td></td>
</tr>
<tr>
<td>Thakur</td>
<td>-2,051</td>
<td>-1,344</td>
</tr>
<tr>
<td>(0.052)</td>
<td>(0.286)</td>
<td></td>
</tr>
<tr>
<td>Pasi</td>
<td>2,537</td>
<td>1,816</td>
</tr>
<tr>
<td>(0.028)</td>
<td>(0.179)</td>
<td></td>
</tr>
<tr>
<td>Jatab</td>
<td>-3,377</td>
<td>-4,672</td>
</tr>
<tr>
<td>(0.012)</td>
<td>(0.023)</td>
<td></td>
</tr>
<tr>
<td>Log likelihood (model)</td>
<td>-375.5</td>
<td>-488.9</td>
</tr>
<tr>
<td>Log likelihood (constant)</td>
<td>-403.4</td>
<td>-526.4</td>
</tr>
</tbody>
</table>

Note: Coefficients for 1983-84 have been normalized in terms of
1974-75 rupees to facilitate comparisons.

¹Note that there are 47 households with regular job income, although
there are 57 individuals with an outside job, in 1983-84. The difference
reflects the fact that in some households more than one member has an
outside job.

²In 1983-84, the education variable corresponds to the highest level of
education achieved by those family members with an outside job.
For 1974-75, this variable indicates whether any household member is
literate or not.


regular outside employment and Jatabs earned about Rs. 3,400 less. Pasi households, on
the other hand, earned about Rs. 2,500 more from regular outside employment.

In 1983-84, an additional bigha of land owned reduced the average amount earned
from regular outside employment by Rs. 94 (again at 1974-75 prices). An additional
adult male increased earnings from regular outside employment by Rs. 1,452, and
an additional year of schooling (for the most educated family member) raised these
earnings by Rs. 742. Once again, Jatabs earned substantially less from regular outside
employment than other villagers.

This simple econometric exercise suggests that certain factors have had a consistent
influence, over time, on the acquisition of regular outside employment. For example,
in both 1974-75 and 1983-84, Jatab households were less likely to obtain regular out-
side employment and also earned less from regular employment outside agriculture.
Similarly, households with more adult males were more likely to obtain regular employment outside the village and had a greater income from outside sources. This latter observation, while not terribly surprising, is consistent with the notion that the pressure of population growth was being felt in Palanpur and that outside employment has a role to play in helping households combat the threat of falling per capita incomes in the face of a growing population and a fixed land area. In both survey years, households with large landholdings tended to figure less prominently among those with outside jobs and to earn less from regular outside employment. Finally, education was clearly and positively associated with outside employment and outside incomes.

In other respects, there is evidence that between 1974–75 and 1983–84, the distribution of regular outside jobs and incomes shifted. There is some suggestion that Thakurs switched from having a lower probability of regular employment outside the village to having a higher probability of such employment (as well as higher incomes). Passis seem to have lost the advantage that their greater historical exposure to the outside world (in particular through railway work) had conferred on them.

**Outside Jobs and the Diversification of Income Sources**

We have noted above that a diversification of sources of income, for example through the spread of outside employment opportunities, can reduce the extent to which total incomes covary across households. With incomes derived from different sources, the set of shocks to which households are exposed is not identical. This could, in principle, have important implications for the viability of insurance or credit arrangements within a village such as Palanpur.

Establishing whether, in fact, the covariance of incomes in Palanpur has declined over time is not a straightforward exercise. It is difficult, for example, to isolate expected or “permanent” income for a household in any one year from the “transitory” component. One way forward is to take the four observations of per capita income (corrected for price changes) for each continuing household and average them. This average per capita income can be interpreted (somewhat tentatively) as a measure of expected or “permanent” income. Accordingly, the difference between actual income in any one year and this permanent income can be defined as transitory income (possibly negative). We express the difference between actual and permanent income as a proportion of permanent income, so that shocks are interpreted as percentage deviations from permanent income.

Clearly, in an agricultural setting, income shocks often take the form of harvest failures or bumper crops due to climatic conditions. These shocks would affect all households engaged in agricultural production. Where all households are exposed to the same shocks, their actual incomes in any one year will tend to deviate in similar ways from their permanent income levels. The question is whether in Palanpur, with the expansion of outside jobs over time, households have become differentiated in the shocks they face. As Table 7-10 shows, the distribution across households of transitory income within a period, represented by the coefficient of variation, became more equal over time for the first three survey years. This may be interpreted as saying that household income became more covariant over time in the sense of proportional
movements becoming less dispersed. By 1983–84, however, the coefficient of variation of transitory income increased dramatically. This suggests there was a sharp reduction in the degree to which household incomes were governed by common forces in the last survey year.

While it is tempting to attribute the rise in the dispersion of transitory incomes between the earlier years and 1983–84 to the expansion of outside employment opportunities, it is worth remembering that the expansion of outside employment started between 1962–63 and 1974–75, and the inequality of income “shocks” between those two years actually declined. Nevertheless, the types of activities in outside jobs in 1983–84 were much more varied in number and nature than in 1974–75.

POVERTY IN PALANPUR

Examining the determinants of poverty and the characteristics of those who are poor requires operational definitions of poverty. Poverty lines are usually defined in terms of income or expenditure, and absolute poverty is generally defined in terms of an income or expenditure required to meet some specified living standard. This has been the dominant practice in India. We use the poverty line for rural areas proposed by V. Dandekar and N. Rath (1971): Rs. 15 per person per month at 1960–61 prices. Relative prices between Uttar Pradesh and India as a whole for 1963–64 were used to obtain a corresponding poverty line for Uttar Pradesh in 1960–61 (see the contribution of N. Bhattacharya and G. S. Chatterjee 1974). This figure is then deflated using the appropriate year’s price index to obtain a poverty line in terms of current income per person for each of our survey years. Based on this procedure, 40 percent of Palanpur households (accounting for 34 percent of the village population) were below the poverty line in 1983–84 (see Table 7–3).

In this chapter we are interested not only in the number of persons who are poor in an absolute sense, but also in the characteristics of those at the lower end of the income distribution. For this reason we shall also examine relative poverty measures, concentrating in particular on the bottom 40 percent in terms of per capita income. The choice of 40 percent has its arbitrariness, just like any absolute poverty line, but
we shall not be concentrating solely on the bottom 40 percent as an undifferentiated group and will also look at the characteristics of individual households and their specific circumstances.

Our analysis of poverty is largely based on current household per capita income. This is a fairly common procedure, but it does require caution. Short-run income fluctuations do not necessarily reflect underlying levels of living because consumption can be smoothed over time, if credit or savings opportunities are available. Further, income may be measured with error. In both cases the implication is that the data are noisy. The presence of noise will tend to increase the estimated incidence of poverty (as measured by the “head count” ratio). Moreover, if we consider two groups within the population such that one group is concentrated above the poverty line and the other below, then the presence of noise will lead us to overstate the incidence of poverty for the former group and underestimate the incidence for the latter group. Further, these biases will be larger in the case of groups for which the “noise” component of income is particularly important.

Using the Dandekar and Rath absolute poverty standard (see above), we find that the proportion of households below the poverty line was 47 percent in 1957-58; 55 percent in 1962-63; 13 percent in 1974-75; and 40 percent in 1983-84 (Table 7-3). The year 1983-84 was poor for agriculture, 1974-75 was quite good, 1962-63 was somewhat below average, and 1957-58 was average. The fact that the incidence of poverty was lower in 1983-84 than in either 1957-58 or 1962-63, in spite of bad harvests in 1983-84, suggests that there has been a sustained (though not large) decline in poverty during the survey period. Broadly speaking, we would suggest that around the earlier pair of years, poverty was around 40 to 45 percent in years of normal harvests, compared with 20 to 30 percent around the later pair. These judgments take into account the quality of harvest and also the shapes of the income distributions in the respective survey years. In general, this decline in poverty is consistent with complementary evidence on asset ownership and real wages, as well as with the villagers’ own perceptions. What is difficult to say with any confidence on the basis of income data is what happened between 1974-75 and 1983-84. The head-count index rose substantially between those two particular years (after a large decline between 1962-63 and 1974-75), but the fact that 1974-75 was a good agricultural year and 1983-84 was not undoubtedly accounts for at least part, and possibly all, of the apparent increase in poverty.

The Correlates of Poverty
In Table 7-11, we provide figures for the incidence of poverty in terms of the per capita income for each of the four survey years, looking at a range of household characteristics. As our focus is on the characteristics of households at the bottom of the income distribution rather than some notion of absolute poverty, the poverty line has been set at a level such that 40 percent of all households are poor in each year. Consistent with our emphasis in this chapter on non-farm employment as a route out of poverty, we see that the poverty incidence of households with regular outside jobs is invariably below the village average. Particularly high poverty incidence in all four survey years is
Table 7-11 "Poverty Risk" for Different Household Groups (proportion of households in the four lowest deciles of the per capita income scale)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>With regular job</td>
<td>0.25 (8)</td>
<td>0.00 (9)</td>
<td>0.34 (35)</td>
<td>0.15 (47)</td>
</tr>
<tr>
<td>Landless</td>
<td>0.50 (14)</td>
<td>0.25 (12)</td>
<td>0.50 (10)</td>
<td>0.44 (27)</td>
</tr>
<tr>
<td>Landless without regular job</td>
<td>0.54 (13)</td>
<td>0.30 (10)</td>
<td>0.40 (5)</td>
<td>0.53 (17)</td>
</tr>
<tr>
<td>Agricultural labor</td>
<td>0.54 (26)</td>
<td>0.75 (16)</td>
<td>0.78 (32)</td>
<td>0.63 (41)</td>
</tr>
<tr>
<td>Landless agricultural labor</td>
<td>0.33 (8)</td>
<td>0.33 (3)</td>
<td>0.60 (5)</td>
<td>0.64 (11)</td>
</tr>
<tr>
<td>Without adult male</td>
<td>0.67 (3)</td>
<td>0.00 (6)</td>
<td>0.00 (0)</td>
<td>0.60 (5)</td>
</tr>
<tr>
<td>Landless without adult male</td>
<td>0.50 (2)</td>
<td>0.00 (4)</td>
<td>0.00 (0)</td>
<td>0.33 (3)</td>
</tr>
<tr>
<td>With widow</td>
<td>0.48 (27)</td>
<td>0.37 (27)</td>
<td>0.38 (21)</td>
<td>0.48 (33)</td>
</tr>
<tr>
<td>Widow without adult male</td>
<td>1.00 (1)</td>
<td>0.00 (4)</td>
<td>0.00 (0)</td>
<td>0.75 (4)</td>
</tr>
<tr>
<td>Joint family</td>
<td>0.39 (38)</td>
<td>0.40 (35)</td>
<td>0.41 (44)</td>
<td>0.22 (37)</td>
</tr>
<tr>
<td>Thakur</td>
<td>0.29 (17)</td>
<td>0.37 (19)</td>
<td>0.16 (25)</td>
<td>0.30 (30)</td>
</tr>
<tr>
<td>Murao</td>
<td>0.14 (21)</td>
<td>0.28 (25)</td>
<td>0.15 (27)</td>
<td>0.26 (27)</td>
</tr>
<tr>
<td>Dhimar</td>
<td>0.70 (10)</td>
<td>0.78 (9)</td>
<td>0.75 (8)</td>
<td>0.46 (13)</td>
</tr>
<tr>
<td>Gadaria</td>
<td>0.33 (9)</td>
<td>0.33 (9)</td>
<td>0.50 (8)</td>
<td>0.33 (12)</td>
</tr>
<tr>
<td>Dhobi</td>
<td>0.00 (2)</td>
<td>0.00 (1)</td>
<td>0.67 (3)</td>
<td>0.25 (4)</td>
</tr>
<tr>
<td>Teli</td>
<td>0.63 (8)</td>
<td>0.56 (9)</td>
<td>0.67 (12)</td>
<td>0.44 (16)</td>
</tr>
<tr>
<td>Patti</td>
<td>0.45 (11)</td>
<td>0.19 (16)</td>
<td>0.25 (8)</td>
<td>0.36 (14)</td>
</tr>
<tr>
<td>Jatab</td>
<td>0.56 (16)</td>
<td>0.54 (13)</td>
<td>0.79 (14)</td>
<td>0.89 (19)</td>
</tr>
<tr>
<td>Other</td>
<td>0.50 (6)</td>
<td>0.60 (5)</td>
<td>0.50 (4)</td>
<td>0.38 (8)</td>
</tr>
<tr>
<td>All households</td>
<td>0.40 (100)</td>
<td>0.40 (106)</td>
<td>0.40 (111)</td>
<td>0.40 (143)</td>
</tr>
</tbody>
</table>

Note: In parentheses, the total number of households with the specified characteristic in the relevant year.
Source: Lanjouw and Stern 1998a.

observed for agricultural labor households, as well as Jatab, Dhimar, and Teli households.
Thakur and Murao households were consistently less likely than average to be among the poor in all four survey years.

Looking at poverty across years for different groups, there is little evidence of particular groups becoming increasingly vulnerable to poverty (in the sense of being in one of the four bottom deciles) over time. However, it is clear that variations in income components relating, for instance, to the quality of the harvest will affect the identity of the poor in any one year. For instance, the (comparative) poverty incidence of households with regular jobs was lowest in the two years during which harvests were poor (1962-63 and 1983-84), at least partly because cultivating households had depressed incomes. Similarly, households of the Murao caste, with their heavy focus on agriculture, registered their highest incidence of poverty in those two years. Only for landless agricultural labor households did the incidence of poverty never fall between any two years, and it rose from 0.33 in 1957-58 to 0.64 in 1983-84. These households do not appear to have been able to take advantage of either outside jobs or increasing yields. Their experience, as well as that of Jatab households (also increasingly overrepresented among the poor over time), suggests the possibility that such households have experienced a relative decline over time in the village economy.

To summarize, the poor in Palanpur form a varied and heterogeneous group. Certain household characteristics, such as employment as an agricultural laborer or
being of the Jatab caste, appear sufficient to ensure a high risk of poverty. Other characteristics that one might have thought to be closely linked to poverty, however, are less successful in identifying the poor. Landlessness or the absence of a family member who is able to work, for example, do not, of themselves, guarantee that the household will be poor. This observation, while simple, is important. Although one might be tempted to target the poor in a village like Palanpur on the basis of a few obvious household characteristics, at best only a subset of the poor would be identified in this manner—and possibly no small number of the non-poor.

POVERTY AND THE NON-FARM ECONOMY

We have seen in the preceding sections that the occupational diversification in Palanpur was substantial in the period 1957–93. We have also provided evidence of some, albeit modest, decline in absolute poverty during this time period. For the purpose of this chapter, the key question concerns the contribution of the non-farm sector to this poverty decline. In this section, we look a bit more closely at the specific linkages between the rural non-farm economy and poverty. We suggest that the relationship is fairly complex and involves both direct and indirect paths of influence. On the whole, we find that the non-farm sector plays a significant role in both mitigating and reducing poverty.

Non-Farm Employment as a Safety Net

In the second section of this chapter, we highlighted the expansion of regular and semi-regular non-farm employment in Palanpur during the survey period and pointed to the strong interest among villagers in such jobs, as well as the relatively high and stable incomes with which they are associated. We also noted, however, that at least some of the non-farm activities villagers are engaged in are of a more casual, low-return nature. These non-farm jobs take a variety of forms, including rickshaw-pulling or casual coolie work in the nearby towns of Chandausi and Moradabad. The jobs typically require very low levels of education and few specific skills. They are often physically strenuous, pose serious health risks, and are typically poorly remunerated.

Rather than representing a promising source of upward mobility, these casual non-farm employment opportunities are best seen as “last resort” options that villagers turn to in times of hardship, after having exhausted other options. In this respect, casual non-farm jobs and casual agricultural employment resemble each other closely; they are unattractive options that villagers turn to only when they have no choice. Not surprisingly, it is poor people who are most highly represented in these occupations. The incomes that derive from these jobs do not suffice to lift the poor above the poverty line, and in that sense they do not contribute noticeably to a reduction in poverty. In fact, they are perhaps better viewed as a symptom of poverty.

However, it is important to recognize that absent these last-resort income sources, the poor would in all likelihood be even worse off. As such, residual employment in the non-farm sector serves an important function as a safety net. With continued population growth, a fixed land endowment, and only modest technological progress in agriculture, such a safety net is of critical importance, particularly when the evidence
suggests that certain segments of the village population are badly placed in terms of access to regular non-farm employment.

**The Functioning of the Regular Non-farm Labor Market**

Regular and semi-regular non-farm employment yields high and, equally importantly, stable income in Palanpur. Discussions with villagers point unambiguously to the widespread desirability of these jobs. Earlier, we noted that the process of allocating non-farm employment favored groups in Palanpur that enjoyed relatively high social status and that possessed good networks of contacts outside the village. The payment of bribes in order to gain access to a particularly appealing job (such as “lifetime” employment in the railways) is not uncommon. Factors such as female gender, low-caste status, and low levels of education are associated with lower probability of employment in the non-farm sector, and with lower incomes where such employment does occur. These observations are consistent with rationing of the more attractive non-farm jobs, and with an allocation mechanism that favors the village elites.

Thus, unlike with casual non-farm employment, the poor do not appear to directly benefit from the more dynamic subsector of the non-farm economy. To the extent that this observation holds more widely in rural India, it serves as a reminder to policy makers to remain realistic when looking for direct impacts on poverty from an expanding non-farm sector. As we shall see below, however, there are dynamic and indirect impacts that may provide grounds for greater optimism.

**A Pro-poor “Marginal Incidence” of Non-farm Employment**

There is an important sense in which the preceding assessment of the non-farm sector’s contribution to poverty might be overly pessimistic. Tables 7-12–7-15 present an individual examination of the 25 households in each of the four survey years that are located at the bottom of the distribution in that year. These are listed by rank of current income per capita in each respective year between 1957-58 and 1983-84. As has already been noted, involvement in casual labor (both agricultural and non-agricultural) is overrepresented in all four survey years, confirming that these jobs are of particular importance to the poor (increasingly so over time). However, what is also evident from these tables is that the number of poor households with some regular non-farm employment has also been rising. In the first two survey years, at most one or two of the bottom 25 households had some employment in regular or semi-regular employment outside the village. In 1974-75, there were 44 regular and semi-regular non-farm jobs reported in the village. Of these, 12 were held by the bottom 25 households. In 1983-84, of the 57 regular and semi-regular non-farm jobs, 7 were held by the bottom 25 households. There is some suggestion that as the non-farm sector has expanded, the poor have become better able to tap into various types of non-farm employment.

This observation is given strong support from the personal observations of Nicholas Stern during his visit to Palanpur in November 2000. He noted that a significant majority of Palanpur families now have at least one family member working outside the village. What is particularly noteworthy is that this observation applied to all castes,
including the Jatabs, who had hitherto been virtually excluded from regular non-farm employment. Stern noted significant housing investments by Jatab households financed out of these non-farm occupations: for example, the conversion of kaccha (mud) houses to pukka (brick) ones. Much of this employment was in the construction sector and as such does not imply marked improvements in skills or educational qualifications among the Jatabs.

The above discussion points to the important distinction between a static, snapshot impression of the incidence of non-farm employment (as examined, for example, in the probit models described in the second section) and the evolution of that incidence over time. We suggested earlier that access to non-farm employment, particularly the well-paid regular jobs, has tended to be captured by the relatively advantaged segments of the village population. One can readily imagine that when non-farm opportunities first present themselves, the village elites (defined in terms of wealth, contacts,
Table 7-13 The Bottom 25 Households in the Income Distribution, 1962-63

<table>
<thead>
<tr>
<th>Household number</th>
<th>Real per capita income</th>
<th>Land owned (bighas)</th>
<th>Land cultivated (bighas)</th>
<th>Household size</th>
<th>Principal occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8050</td>
<td>10.3</td>
<td>13</td>
<td>11</td>
<td>4</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>1040</td>
<td>12.4</td>
<td>50</td>
<td>34</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>1050</td>
<td>14.4</td>
<td>39</td>
<td>49</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>8040</td>
<td>18.8</td>
<td>15</td>
<td>15</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>7610</td>
<td>28.4</td>
<td>11</td>
<td>0</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>2160</td>
<td>30.4</td>
<td>32</td>
<td>32</td>
<td>4</td>
<td>Cultivation</td>
</tr>
<tr>
<td>8030</td>
<td>30.7</td>
<td>36</td>
<td>36</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>9610</td>
<td>31.1</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>Carpenter</td>
</tr>
<tr>
<td>2030</td>
<td>31.5</td>
<td>108</td>
<td>108</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>6061</td>
<td>44.8</td>
<td>1</td>
<td>14</td>
<td>4</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>3071</td>
<td>45.3</td>
<td>20</td>
<td>20</td>
<td>9</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>9010</td>
<td>48.5</td>
<td>28</td>
<td>28</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>9040</td>
<td>48.8</td>
<td>8</td>
<td>18</td>
<td>7</td>
<td>Barber, cultivation</td>
</tr>
<tr>
<td>1030</td>
<td>50.4</td>
<td>0</td>
<td>40</td>
<td>5</td>
<td>Cultivation, livestock products</td>
</tr>
<tr>
<td>8130</td>
<td>56.5</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>2120</td>
<td>62.0</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>1030</td>
<td>67.7</td>
<td>35</td>
<td>35</td>
<td>4</td>
<td>Cultivation</td>
</tr>
<tr>
<td>7020</td>
<td>69.1</td>
<td>24</td>
<td>34</td>
<td>7</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>3090</td>
<td>71.2</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>6080</td>
<td>72.1</td>
<td>20</td>
<td>20</td>
<td>8</td>
<td>Cultivation, shopkeeping</td>
</tr>
<tr>
<td>2143</td>
<td>72.8</td>
<td>23</td>
<td>23</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>2144</td>
<td>72.8</td>
<td>23</td>
<td>23</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>3050</td>
<td>73.5</td>
<td>6</td>
<td>17</td>
<td>5</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>8120</td>
<td>75.0</td>
<td>9</td>
<td>20</td>
<td>2</td>
<td>Cultivation</td>
</tr>
<tr>
<td>6010</td>
<td>81.1</td>
<td>25</td>
<td>32</td>
<td>8</td>
<td>Cultivation</td>
</tr>
<tr>
<td>Average</td>
<td>48.8</td>
<td>22</td>
<td>25</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Village average</td>
<td>186.4</td>
<td>26</td>
<td>26</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Note: Incomes are in 1960-61 rupees. The first digit of each household number indicates caste, in accordance with the number ordering in Table 7-2.
Source: Lanjouw and Stern 1998a.

education levels, and so on) are the first to avail of these new opportunities. The advantaged position of these segments generates a snapshot impression of a highly regressive incidence of non-farm employment. However, as the non-farm sector continues to expand, the relatively less well-off might start to gain access, as well. Eventually even the poorest segments of the population are able to gain access. The experience in Palanpur suggests that such a process might well be taking place, especially if one takes note of the observations from the revisit in 2000. For policy makers, the lesson is clear. An assessment whether to pursue efforts to expand the non-farm sector should not be based solely on a static analysis of who the beneficiaries of such employment opportunities are at any given moment. Rather, possibilities for other potential beneficiaries should also be considered.

Evolution of Agricultural Wages
Our discussion of the profile of poverty in Palanpur above indicated that agricultural labor households are highly represented among the poor in all the survey years covered
in the study. This close association between agricultural labor and poverty is a well-known feature of rural India. A key question of interest in this connection relates to the evolution of agricultural wages over time. In Palanpur, agricultural wages at any one moment in time tend to be quite uniform across the village (although not necessarily the same as in the neighboring village). However, over time, these wage rates have been on an upward trend. In Palanpur in 1957–58, a day’s work as an agricultural laborer yielded an income sufficient to purchase about 2.5 kg of wheat (at the post-harvest wheat price). This had risen to about 5 to 6 kg of wheat in 1984–84 and up to 8.3 kg of wheat in 1993. In the 2000 revisit to Palanpur by Nicholas Stern, a day’s work as an agricultural laborer was reported to yield about 11 kg of wheat. Such a rise in real wages is rather noteworthy, especially in light of a fairly rapidly growing village population and a fixed endowment of land. All things equal, with a

### Table 7-14 The Bottom 25 Households in the Income Distribution, 1974–75

<table>
<thead>
<tr>
<th>Household number</th>
<th>Real per capita income</th>
<th>Land owned (bighas)</th>
<th>Land cultivated (bighas)</th>
<th>Household size</th>
<th>Principal occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>21000</td>
<td>54.5</td>
<td>25</td>
<td>10</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>80901</td>
<td>71.2</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>60503</td>
<td>79.7</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>Casual labor, railways</td>
</tr>
<tr>
<td>57390</td>
<td>80.4</td>
<td>2</td>
<td>8</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>11200</td>
<td>83.8</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>Cultivation, casual labor, watchman</td>
</tr>
<tr>
<td>57190</td>
<td>100.4</td>
<td>0</td>
<td>8</td>
<td>6</td>
<td>Cultivation, washerman</td>
</tr>
<tr>
<td>40302</td>
<td>105.5</td>
<td>12</td>
<td>12</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>60502</td>
<td>111.6</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>Railways</td>
</tr>
<tr>
<td>81000</td>
<td>119.3</td>
<td>10</td>
<td>10</td>
<td>11</td>
<td>Cultivation, casual labor, work in mill</td>
</tr>
<tr>
<td>80501</td>
<td>120.1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>Railways, casual labor</td>
</tr>
<tr>
<td>81300</td>
<td>122.5</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>30300</td>
<td>127.5</td>
<td>12</td>
<td>26</td>
<td>3</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>40101</td>
<td>128.5</td>
<td>8</td>
<td>0</td>
<td>7</td>
<td>Railways</td>
</tr>
<tr>
<td>60400</td>
<td>138.5</td>
<td>13</td>
<td>23</td>
<td>7</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>70100</td>
<td>143.0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>Casual labor, goat trading</td>
</tr>
<tr>
<td>81600</td>
<td>143.1</td>
<td>20</td>
<td>22</td>
<td>7</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>21800</td>
<td>143.5</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>Cultivation, sugarcane factory</td>
</tr>
<tr>
<td>80902</td>
<td>151.8</td>
<td>5</td>
<td>26</td>
<td>6</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>60800</td>
<td>160.5</td>
<td>22</td>
<td>26</td>
<td>11</td>
<td>Cultivation, cloth mill</td>
</tr>
<tr>
<td>30720</td>
<td>162.2</td>
<td>16</td>
<td>21</td>
<td>9</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>80500</td>
<td>165.8</td>
<td>10</td>
<td>30</td>
<td>7</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>40800</td>
<td>172.4</td>
<td>20</td>
<td>7</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>31000</td>
<td>175.6</td>
<td>3</td>
<td>13</td>
<td>7</td>
<td>Casual labor, unspecified outside job</td>
</tr>
<tr>
<td>60620</td>
<td>177.1</td>
<td>1</td>
<td>40</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>70410</td>
<td>179.4</td>
<td>3</td>
<td>0</td>
<td>13</td>
<td>Casual labor, service outside the village</td>
</tr>
</tbody>
</table>

Average 128.7 8 12 7
Village average 283.3 23 22 7

Note: Incomes are in 1960–61 rupees. The first digit of each household number indicates caste, in accordance with the number ordering in Table 7-2.
Source: Langeouw and Stern 1998a.
Table 7-15  The Bottom 25 Households in the Income Distribution, 1983–84

<table>
<thead>
<tr>
<th>Household number</th>
<th>Real per capita income (1960-61)</th>
<th>Land owned (bighas)</th>
<th>Land cultivated (bighas)</th>
<th>Household size</th>
<th>Principal occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>108002</td>
<td>-41.0</td>
<td>36</td>
<td>36</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>108001</td>
<td>14.3</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>Salesman</td>
</tr>
<tr>
<td>711091</td>
<td>20.2</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>Job search</td>
</tr>
<tr>
<td>802001</td>
<td>25.8</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>Cultivation</td>
</tr>
<tr>
<td>813001</td>
<td>28.1</td>
<td>12</td>
<td>6</td>
<td>8</td>
<td>Mason, casual labor (also non-farm)</td>
</tr>
<tr>
<td>607020</td>
<td>30.6</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>Casual farm and non-farm labor</td>
</tr>
<tr>
<td>602003</td>
<td>37.2</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>Casual farm and non-farm labor</td>
</tr>
<tr>
<td>711093</td>
<td>38.6</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>Casual farm and non-farm labor</td>
</tr>
<tr>
<td>802002</td>
<td>43.6</td>
<td>18</td>
<td>12</td>
<td>8</td>
<td>Cultivation</td>
</tr>
<tr>
<td>815000</td>
<td>46.5</td>
<td>23</td>
<td>20</td>
<td>8</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>812000</td>
<td>51.1</td>
<td>14</td>
<td>14</td>
<td>7</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>208010</td>
<td>53.9</td>
<td>40</td>
<td>36</td>
<td>6</td>
<td>Cultivation</td>
</tr>
<tr>
<td>606200</td>
<td>57.1</td>
<td>1</td>
<td>19</td>
<td>6</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>805002</td>
<td>62.2</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>Work in chakki</td>
</tr>
<tr>
<td>904000</td>
<td>63.1</td>
<td>0</td>
<td>17</td>
<td>4</td>
<td>Barber, cultivation</td>
</tr>
<tr>
<td>306002</td>
<td>66.2</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>Railway, casual labor</td>
</tr>
<tr>
<td>901000</td>
<td>66.4</td>
<td>14</td>
<td>0</td>
<td>6</td>
<td>Spinning factory</td>
</tr>
<tr>
<td>807002</td>
<td>67.1</td>
<td>5</td>
<td>0</td>
<td>7</td>
<td>Farm and non-farm casual labor</td>
</tr>
<tr>
<td>606100</td>
<td>67.8</td>
<td>1</td>
<td>18</td>
<td>3</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>402001</td>
<td>69.9</td>
<td>11</td>
<td>7</td>
<td>7</td>
<td>Domestic work only</td>
</tr>
<tr>
<td>814000</td>
<td>72.8</td>
<td>23</td>
<td>20</td>
<td>7</td>
<td>Cultivation</td>
</tr>
<tr>
<td>304090</td>
<td>73.9</td>
<td>4</td>
<td>0</td>
<td>5</td>
<td>Farm and non-farm casual labor</td>
</tr>
<tr>
<td>681990</td>
<td>79.1</td>
<td>0</td>
<td>38</td>
<td>8</td>
<td>Cultivation, casual labor</td>
</tr>
<tr>
<td>601001</td>
<td>80.0</td>
<td>2</td>
<td>25</td>
<td>4</td>
<td>Cultivation</td>
</tr>
<tr>
<td>805001</td>
<td>81.2</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>Rope-making, casual labor</td>
</tr>
<tr>
<td>Average</td>
<td>50.2</td>
<td>10</td>
<td>13</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Village average</td>
<td>182.9</td>
<td>18</td>
<td>19</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Note: Incomes are in 1960-61 rupees. The first digit of each household number indicates caste, in accordance with the number ordering in Table 7-2.
Source: Lanjouw and Stern 1998a.

static technology and fixed land, one would have expected that declining per capita landholdings would have released growing numbers into the village labor market and that this would have exerted downward pressure on wages. We have noted, however, that alongside population growth, another important force of change in Palanpur has been agricultural intensification associated with new technologies. Some of these technologies have been land-augmenting (such as the use of irrigation, fertilizers, and new seeds) and so such would have contributed to a growing demand for agricultural labor (and upward pressure on wages). However, alongside these technological changes, there have also been labor-displacing innovations (the use of tractors and other mechanized inputs) and these would tend to dampen pressure on wages. In fact, it is possible that labor-displacing technological change has been more pronounced in
recent years than the land-augmenting form. Yet wage increases have continued. The expanding non-farm sector (including both regular and casual employment) is likely to also have played a role in tightening the village labor market.

It is difficult to document systematically how the non-farm sector in Palanpur has contributed to rising agricultural wages in the village. In this specific setting we must appeal to our general knowledge of the evolution of the village economy, and the absence of any other factor that could convincingly account entirely for this time-path of agricultural wages. However, econometric evidence of a relationship between non-farm employment and agricultural wages at the national level also supports this conjecture. Peter Lanjouw and Abusaleh Shariff (2002) estimate a regression of village-average agricultural wages on village-level “yields” (gross agricultural output divided by land cultivated), population density, and non-farm employment shares across 1,300 Indian villages in the 1994 NCAERI dataset (controlling for state-level fixed effects) and find an independent, positive, and significant effect of non-farm employment shares on agricultural wages. This evidence thus also points to an important role played by the non-farm sector in addressing rural poverty: namely, in raising the wages upon which the rural poor are heavily dependent.

CONCLUSION

This chapter opened by posing a set of questions regarding the evolution of poverty in rural India during the past decade and the mechanisms that have been influential in this process. It is clear that this chapter has not been able answer all these questions. First of all, we have been concerned in this chapter with the experience of development in only one village in rural India (out of perhaps half a million or more). Second, we have not focused our attention specifically on the evolution of poverty in Palanpur during the past decade. Rather we have been concerned with taking a long-term view of development in Palanpur over as many as five decades. We have tried to use this perspective to identify some of the mechanisms that could be playing a role in determining poverty outcomes during the 1990s.

Our focus in this chapter has been on the role of growth of the rural non-farm economy in determining income-poverty in Palanpur. Interest in this sector of the rural economy is prompted by the fact that the reform process that was initiated in India during the 1980s and early 1990s, and which continues today, has as a major objective the creation of a better investment climate. In a country such as India, one would expect that such an improved investment climate would be reflected in an expansion of a wide variety of non-farm activities. The question that then arises is whether, and how, such an expansion would influence the lives of the rural poor.

Our analysis suggests that under the umbrella of the non-farm “sector,” there is a value to distinguishing between casual non-farm activities on the one hand, and regular or semi-regular non-farm employment on the other. The former “outside jobs” can be viewed as offering a safety net to the poorest of the poor. While they are not highly remunerative, they help protect the poor from falling even further into poverty. The latter, more attractive, non-farm jobs have not typically gone to the poor; they
lack the education, skills, contacts, and wealth to compete for those jobs that offer high and stable returns. We suggest that such non-farm jobs are prone to "capture" by the non-poor (in Palanpur and elsewhere) and, as such, are not likely to have directly contributed in a major way to the reduction of poverty over time.

However, that assessment does need to be qualified in two important respects. First, we suggest that as the non-farm sector has expanded over time, it has gradually come to involve more of the relatively poor in the village. The dynamic, marginal incidence of non-farm employment seems to be more progressive than the incidence in a given survey year would suggest. Second, despite steady population growth over time, and an accompanying decline in per capita landholdings, agricultural wages have risen in Palanpur. This is no doubt in part due to the labor intensity of new agricultural technologies, but it is likely that growth of the non-farm sector has also contributed to a general tightening of labor markets, resulting in rising agricultural wages. Given the importance of agricultural labor to the poorest of the poor in Palanpur, and in rural India more generally, the tightening of agricultural labor markets has been extremely important in raising the living standards of the poor.

REFERENCES


NOTES

*The views presented in this paper are the authors’ and should not be taken to represent those of the World Bank or any of its affiliates. All errors are the authors’.

1 Gary Fields (1980, 2000) demonstrates that the Lewis process of intersectoral transfer is able to generate the well-known “inverted U-Curve” of rising and then falling income inequality, first described by Stanley Kuznets (1955, 1963).

2 G. Datt and M. Ravallion (2002) summarize a major analytical effort that they have been engaged in over the past six years, in which they have made extensive and influential use of a time series of poverty estimates that they have constructed from the 25-odd rounds of NSSO household surveys that have been fielded since independence. See also Sen (1990). Recently, controversy has raged around the question of the extent of poverty reduction in India during the 1990s, fueled by concern about comparability of the 50th (1993) and 55th (1999) rounds of the NSS survey (see Deaton 2001; Tarozzi 2001; Datt, Kozel, and Ravallion 2001; Datt and Ravallion 2002; Thalla 2000).


4 N. Ansari (1964) reports on the findings of this village-wide survey.

5 Some comparisons with the earlier survey years were reported, but a longitudinal perspective was not given a major emphasis.

6 One of the relatively special features of the Palanpur study is that detailed information is collected from all the households in the village, rather than a sample of households.

7. Five Decades of Development in an Indian Village

Those castes formally recognized in the constitution as occupying the lowest rankings in the caste hierarchy.

Recall that the shorter duration of the 1993 survey prevented collection of the detailed economic information necessary to construct an income measure for 1993 that is comparable to that of the earlier survey years.

As can be seen in Table 7-2, the migration-adjusted population growth rate is somewhat higher than what obtains by simply looking at the village population. Over this survey period, there has been net out-migration. This has most commonly taken the form of whole households migrating out of the village (although some offsetting in-migration of households has also occurred). Migration of households has most often involved the movement of households of the same caste, often related to one another, to and from the village.

While population growth has been an important factor of economic change, demographic change itself has been quite slow in Palanpur. The very high share of children in the population suggests that the growth of the Palanpur population is not likely to slow markedly in the near future.

New seed varieties and fertilizers were first introduced in Palanpur in the mid-1960s. Thus, the first two survey years can be viewed as describing the situation before the introduction of these new technologies and the later surveys describing the situation afterward. It should be stressed that although the term “green revolution” is often employed, the process of technological change in Palanpur has been rather more incremental and cumulative than the term suggests.

In other villages, similar commuting occurs by road vehicle. In Palanpur, the nearest road is several kilometers away.

The specific reasons for this decline are discussed further below. Note that the decline does indicate that numbers are opportunity-driven, rather than a supply-side phenomenon.

There may also be caste disadvantages in connection with certain types of work. For example, groups ranked low in the social hierarchy may find it difficult to gain employment in an activity involving the handling of food. Note that employment in bakeries is monopolized by Thakurs, the highest-ranked caste in Palanpur.

The Harris and Todaro (1970) model, for example (at least in its simplest form) has all jobs shuffled at random in each period.

See, for example, the contribution of J. Harris in Hazell and Ramaswamy (1991). See also Sharma and Poleman (1993) for Uttar Pradesh, specifically.

SeeBinswanger and Rosenzweig 1986; Platteau and Abraham 1987; Alderman and Paxson 1994.

In a revisit to Palanpur in November 2000, Nicholas Stern noted that the expansion of outside jobs has continued to such an extent that a majority of households now have at least one family member involved in some non-farm activity.

In the absence of income data for 1993, we focus our attention here on 1974–75 and 1983–84. Note that in both years, the unit of observation is the household (unlike in Table 7-1).

We are speaking loosely here in interpreting the coefficient as the derivative of income with respect to a variable. In the Tobit, as in other limited dependent variable models, the expectation of the left-hand side variable, y, conditional on the right-hand side variable should take into account the probability of y being positive.

But not allowing for a trend.

Note that pests and other mishaps can be local and that farmers can differ in the steps they take to mitigate risks.

For any unimodal distribution, if the poverty line lies below the distribution’s mode (and vice versa). This result is specific to poverty as represented by the head-count measure. For poverty measures that belong to the Foster Greer Thorbecke (FGT) class, M. Ravallion (1988) shows that the presence of noise leads to an increase in measured poverty incidence regardless of where the poverty line is relative to the mode of the distribution; see also Ravallion (1994).
For example, the poverty line cuts the distribution of income for 1962-63 at a point where a large number of households are clustered. This means that were a better harvest in 1962-63 to have boosted all household incomes by, say, 15 percent, then a large number of households would have crossed the poverty line, and the incidence of poverty among households in 1962-63 would have fallen considerably, from 55 percent to 47 percent.

27 Peter Lanjouw and Abusaleh Shariff (2002) estimate state-level models of the probability of employment in non-farm jobs using nationally representative NCAER data for rural areas, and obtain findings that are qualitatively very similar to those observed in Palanpur.

Due to the particularly good harvest in 1974-75, the bottom 25 households in that year include few cultivating households. For this reason, households reliant on non-farm sources of income are particularly highly represented among the bottom 25.

See for example, Singh (1990).

Mukherjee (1998) and Drezé and Mukherjee (1989) provide a detailed description of the features of Palanpur’s agricultural labor market and discuss the possible factors that account for the widely observed uniformity of agricultural wages within villages in rural India.

It is of some interest to note that in Palanpur in 1993 nominal agricultural wages stood at Rs. 25 per day, and at the time of Stern’s revisit in 2000, they stood at Rs. 50 per day. Analysis of National Sample Survey data for the 50th (1993–94) and 55th (1999–2000) rounds finds respective average nominal agricultural daily wages in western Uttar Pradesh of Rs. 27 and 50 per day (World Bank 2002).
8. The Problem of African Entrepreneurial Development

TYLER BIGGS AND MANJu SHAH*

Future reductions in poverty in Sub-Saharan Africa will have to come from a significant expansion in private sector activity and substantial improvements in productivity. The capacity of the sector to bring about such changes will depend importantly on the ability of entrepreneurs to develop more effective business strategies, make profitable investments, and improve technologies in use. Unfortunately, as the development literature has so often pointed out, differences in the availability of entrepreneurial talent (both technical and managerial) and differences in the motivational mechanisms that drive entrepreneurs have been important causes of Africa's relative stagnation, compared with other parts of the developing world. So where will the necessary entrepreneurial talent come from in Africa? What types of changes in motivational mechanisms and capacities will be needed to increase its effectiveness?

This chapter uses a unique data set to examine the problem of entrepreneurship in Sub-Saharan Africa and to analyze the determinants of entrepreneurial firm performance. Our data permit us to draw distinctions between groups of entrepreneurs (African and non-African, for example) to see how differences in their endowments influence start-up and performance of the firms they run. Our objective is to gain a better understanding of the constraints to becoming a manufacturing entrepreneur in Sub-Saharan Africa and the attributes of entrepreneurs that make for success.

We begin with a brief theoretical discussion of the role of the entrepreneur in economic development and a delineation of several hypotheses regarding the supply of entrepreneurship and the factors driving its performance. In the second section, we examine the attributes and endowments of entrepreneurs in Sub-Saharan Africa.
and the start-up of entrepreneurial firms. The third section looks at the process of selection into entrepreneurship and investigates the links between the entrepreneur's endowments and firm formation. The final sections analyze entrepreneurial firm performance in terms of both efficiency and growth.

Our findings support a central hypothesis of the entrepreneurship literature: that entrepreneurs' endowments are important determinants of their capacities to carry out the entrepreneurial function. Incentives may shape the opportunities open to entrepreneurs, but their endowments influence the productivity of their efforts. We show that human capital attainments and net worth play a significant role in the supply of entrepreneurial talent and in the start-up and performance of entrepreneurial firms. We also find that relational networks, based on ethnic ties, are important in this respect, pointing up the significance of institutional constraints in the Sub-Saharan African business environment. An analysis of African and minority entrepreneurs (mostly of Asian, European, and Middle Eastern decent) shows that, as a consequence of their smaller endowments of human capital, assets, and network capacities, would-be African entrepreneurs are constrained in many cases. They tend to take up informal apprenticeships and follow a path into manufacturing through micro and small enterprises in lower skill areas of the market. On the other hand, minority entrepreneurs with larger endowments of education, assets, and network capacities enter manufacturing by way of larger enterprises in higher skill areas. In addition to their impact on firm formation, we find that these endowments influence firm efficiency and growth. African entrepreneurial firms underperform minority entrepreneurial firms in both areas. Observed differences in endowments are significant in explaining these results. In short, African entrepreneurs, because of their lower endowments of human capital, financial assets, and professional connections, are constrained to start-up on a smaller scale and to remain smaller and less productive than other firms in Sub-Saharan Africa.

The data for this study come from enterprise surveys conducted in 11 Sub-Saharan African countries in the 1990s by the Regional Program for Enterprise Development (RPED) at the World Bank: Cameroon, Cote d'Ivoire, Ghana, Kenya, Mozambique, Nigeria, Tanzania, Zambia, and Zimbabwe. In each of these countries, 200 to 220 firms were interviewed across four manufacturing sectors: food processing, wood and furniture, textiles and garments, and metalworking. Sampling was done on the basis of size in terms of employment, such that each worker (rather than firm) had an equal probability of being drawn. The sampling method used was fixed interval sampling by sector. This ensured that the sample covered the entire size distribution of firms, without being unduly skewed toward small firms.

This study uses data from the first round of the surveys for each of the countries, where we have detailed information on the characteristics of individual entrepreneurs. Ghana is excluded in some of the analysis because the survey did not include a question related to the ethnicity of the entrepreneur. In various parts of the analysis in this chapter, we have been forced to exclude other countries because the survey instrument did not contain the relevant variables. However, when the data permit, we include as many countries as possible.
For much of the analysis, only entrepreneurial firms were selected from the sample. Entrepreneurial firms are firms that are 100 percent privately owned by a single proprietor or a small group of proprietors. We exclude from the entrepreneurial firm category large publicly quoted companies, state-owned firms, and multinationals.

**THEORY AND HYPOTHESES: THE ROLE OF THE ENTREPRENEUR AND THE SUPPLY OF ENTREPRENEURSHIP**

While it has long been recognized that the entrepreneurial function is a vital component in the process of growth of output and productivity, neoclassical theory has very little to say about entrepreneurship that might guide an inquiry into the issues raised in the introduction to this chapter. As William Baumol (1993) notes, the theoretical firm is entrepreneur-less. The theoretical firm faces known choices and has no difficulty in choosing the correct action within those choices that is best for it, given its objective of maximizing profits. There is no room or need for the types of entrepreneurial initiative lauded by the classical economists: coordination, arbitrage, innovation, and coping with uncertainty. What firms do is simply determined by the exogenous conditions they face. The management group is a passive calculator; until there is a shift in one of the exogenous forces leading to an autonomous change in the conditions, nothing will change. Even in more advanced models, where those assumptions are modified to deal with such factors as incomplete or asymmetric information, decisionmakers who are only "boundedly" rational, and oligopolistic industry structures, and the door is opened for various types of entrepreneurial activity, no entrepreneur is included in the analysis. Rather, the focus, as in the simpler model, is still on equilibrium outcomes reached by passive calculators. There is no attempt to explain in any of the models what Baumol has called the "magnificent dynamics" of how the equilibrium changes.²

In the real world of course, as opposed to theoretical constructs, we are always in disequilibrium, choices are almost always obscure, and there is often difficulty in choosing the action that is best. In this setting, entrepreneurship plays a distinct and critical role. Entrepreneurs take a keen interest in profitable opportunities offered by the dynamics of change. While there are no comprehensive theories to guide us through this changing and uncertain world of the entrepreneurs, we do have what can be called exemplifying theories of entrepreneurship that describe what can happen, rather than what must happen (Fisher 1989).

We utilize two such exemplifying theories here to examine critical hypotheses concerning the role of entrepreneurs and the supply of entrepreneurship. William Baumol (1968, 1993) and Harvey Leibenstein (1968), building on Joseph Schumpeter's earlier model (1934), construct an expanded theory of the economic roles of the entrepreneur in development and shed light on the variables that influence the supply of entrepreneurial talent and its performance.

Leibenstein distinguishes two broad types of entrepreneurial activity. The first he calls *routine entrepreneurship*. It involves managing and coordinating activity in an enterprise where inputs, technologies, and markets are reasonably well known, but where a certain amount of "slack" (excess capacity) exists.³ The problem is to motivate and coordinate activities to eliminate "slack" and get as close as possible to the "best practice" production
The second, Leibenstein calls new type entrepreneurship. Entrepreneurial activities in this case include introduction of technical changes, new firm formation, and managing and coordinating an enterprise where all the markets are not well established or clearly defined and/or in which the relevant technologies are not well known. Particularly in this second case, where markets are weak or may not exist, the entrepreneur, if he is to be successful, must fill in for market deficiencies; in Leibenstein's words, the entrepreneur must be a "gap filler." But this is not the entrepreneur's only major function. In both cases of entrepreneurship, since important inputs, like management and market information, are often not well marketed, and since the ability to obtain some inputs, like finance, may depend on connections rather than on the willingness to pay a certain interest rate, the entrepreneur must have the capacity to deal with such problems. In addition, the entrepreneur must be an "input-completer," marshaling the right quantities and qualities of inputs when difficulties arise, and having the capacity to be creative, to bring the enterprise to fruition.4

Baumol's view of the role of the entrepreneur is more narrowly defined. To him the entrepreneur (whether or not he also doubles as a manager) is a Schumpeterian innovator. His job is to locate new ideas and put them into effect. He must lead and inspire and not allow things to get into a rut: Today's business practices are never good enough for tomorrow. Baumol's focus on innovation is broader than Schumpeter's original conception of the entrepreneurial function, in the sense that he includes in his notion of innovation the dissemination of technology or technology transfer from one firm to another or one geographical location to another as a vital activity.

The entrepreneur's profit is the key element driving economic growth in both Baumol's and Leibenstein's theory of the entrepreneur. The entrepreneur who wants to continue to earn profits can never afford to rest. He must follow the first innovation or gap-filling idea with a second because otherwise the stream of profits will dry up as imitators enter. By forcing the entrepreneur to innovate without respite, the pursuit of a continuing stream of profits serves as a powerful engine of technical, and in some cases institutional, change in the economy and, in turn, of economic growth.

Both authors consider entrepreneurial effort as an input in the production process that can contribute to the size of the economy's overall output or rate of growth. Several variables are singled out as having an important influence on the supply of this entrepreneurial input. Both Baumol and Leibenstein emphasize that how the entrepreneur spends his time depends heavily on the prevailing reward structure in the economy; that is, on the prevailing opportunity costs and payoffs to various entrepreneurial activities. Baumol stresses that, in addition to being a productive innovator, the entrepreneur can also engage in "unproductive" activities. If, for example, the structure of payoffs favors rent-seeking, the entrepreneur's energies will be misdirected to this unproductive pursuit, making no contribution to the real output of the economy. In short, the supply of productive entrepreneurship, and the ultimate effect of the entrepreneur in the economy, will vary with the structure of payoffs and the allocation of entrepreneurial resources between productive and unproductive activities.

Opportunity costs and the structure of payoffs shape opportunities, but the entrepreneur's endowments and innate limitations influence the types of opportunities he can exploit, as well as the productivity of his efforts. Accordingly, the level of output
attributable to entrepreneurship in the economy will in part depend on the average endowments of entrepreneurs. These endowments are important determinants of their capacities to carry out the entrepreneurial role of innovator, gap-filler, and input-completer. An important aspect of the abilities represented by these endowments is both the perception of economic opportunities and the capability to assess and exploit such opportunities. These are presumably determined in part by endowments such as those developed through informal training, experiences, and formal education. Another important endowment is financial capital. Entrepreneurs who start without capital assets will be constrained in their ability to take advantage of opportunities requiring any substantial initial investment unless they can get access to credit. Absent credit, these entrepreneurs will be more likely to concentrate in businesses with low entry costs and high uncertainty.

These theories about the role of the entrepreneur in the economic growth process and the level of supply of the entrepreneurial input invite the following hypotheses regarding the impact of the entrepreneurial function. On an “other things equal” basis:

- A country’s growth rate depends on the level of productive entrepreneurial effort supplied and the capabilities of entrepreneurs to innovate, fill gaps, and complete inputs.
- The supply of entrepreneurial effort depends on prevailing opportunity costs and the structure of payoffs in “productive” and “unproductive” activities.
- The larger the assets or net worth of the entrepreneur or his network of family and friends, the greater the innovative and gap-filling capacity of the entrepreneur.
- The higher the level of education and experience of the entrepreneur, the greater the innovative and gap-filling capacity of the entrepreneur.
- Differential entrepreneurial innovative and gap-filling capabilities are a critical element in explaining the differential rewards of entrepreneurs.

We turn now to testing these hypotheses, based on our data set of entrepreneurs in Sub-Saharan Africa.

ATTRIBUTES AND ENDOWMENTS OF ENTREPRENEURS IN SUB-SAHARAN AFRICA

A majority of firms in all the Sub-Saharan African countries (except Nigeria) in our sample are owned by entrepreneurs, as seen in Table 8-1. However, the distribution of legal forms of ownership of these firms differs across countries. Most entrepreneurial firms in Côte d’Ivoire and Ghana are registered as sole proprietorships, while in other countries, the prevalent form is Limited Liability enterprise.

Establishment of Entrepreneurial Firms and Sources of Start-up Finance

The overwhelming majority of firms were established by their current owners (Table 8-2). On average, across the region, about 75 percent of entrepreneurial firms were established by the current owner, as opposed to being bought, or inherited through the family.

Mozambique and Zimbabwe are exceptions, with much higher percentages of firms that were bought from other owners. In Zimbabwe, these purchases were concentrated
### Table 8-1: Distribution of Entrepreneurial Firms in Sub-Saharan Africa (no. of firms)

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Cameroon</th>
<th>Côte d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-entrepreneurial</td>
<td>66</td>
<td>83</td>
<td>30</td>
<td>31</td>
<td>47</td>
<td>48</td>
<td>66</td>
<td>43</td>
<td>125</td>
</tr>
<tr>
<td>Entrepreneurial</td>
<td>133</td>
<td>134</td>
<td>148</td>
<td>193</td>
<td>165</td>
<td>161</td>
<td>132</td>
<td>113</td>
<td>102</td>
</tr>
</tbody>
</table>

**Legal Status of Entrepreneurial Firms**

| Sole Proprietorship   | 60       | 83            | 75    | 72    | 48       | 43     | 42       | 35         | 3       |
| Partnership           | 2        | 1             | 14    | 34    | 21       | 9      | 9        | 33         | 1       |
| Limited Liability     | 69       | 50            | 58    | 87    | 94       | 81     | 45       | 98         |         |

**Source:** Authors' calculations, based on RPEID enterprise surveys, 1993-99.

### Table 8-2: Origin of the Business (% of each group)

<table>
<thead>
<tr>
<th>Origin of Business</th>
<th>Cameroon</th>
<th>Côte d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL FIRMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-established</td>
<td>90.8</td>
<td>78.3</td>
<td>91.2</td>
<td>74.9</td>
<td>85.0</td>
<td>74.3</td>
<td>61.9</td>
<td>43.7</td>
<td>86.5</td>
</tr>
<tr>
<td>Bought</td>
<td>6.2</td>
<td>10.8</td>
<td>0.7</td>
<td>9.5</td>
<td>2.6</td>
<td>13.5</td>
<td>22.9</td>
<td>43.3</td>
<td>3.1</td>
</tr>
<tr>
<td>Inherited</td>
<td>3.1</td>
<td>6.7</td>
<td>5.1</td>
<td>11.2</td>
<td>7.2</td>
<td>10.1</td>
<td>11.9</td>
<td>9.3</td>
<td>7.3</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>4.2</td>
<td>2.9</td>
<td>4.5</td>
<td>5.2</td>
<td>2.0</td>
<td>3.4</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>MICROENTERPRISES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-established</td>
<td>97.0</td>
<td>84.6</td>
<td>91.6</td>
<td>77</td>
<td>89.1</td>
<td>85.3</td>
<td>88.4</td>
<td>37.9</td>
<td>n.a.</td>
</tr>
<tr>
<td>Bought</td>
<td>1.5</td>
<td>6.4</td>
<td>0</td>
<td>4.6</td>
<td>3.3</td>
<td>2.9</td>
<td>2.3</td>
<td>48.3</td>
<td>n.a.</td>
</tr>
<tr>
<td>Inherited</td>
<td>1.5</td>
<td>3.8</td>
<td>5.3</td>
<td>11.5</td>
<td>5.4</td>
<td>10.3</td>
<td>7.0</td>
<td>10.3</td>
<td>n.a.</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>5.1</td>
<td>3.2</td>
<td>6.9</td>
<td>2.2</td>
<td>1.5</td>
<td>2.3</td>
<td>3.4</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>SMALL ENTERPRISES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-established</td>
<td>83.3</td>
<td>65.5</td>
<td>90.3</td>
<td>76.2</td>
<td>81.4</td>
<td>66.7</td>
<td>63.0</td>
<td>55.7</td>
<td>94.9</td>
</tr>
<tr>
<td>Bought</td>
<td>12.5</td>
<td>20.7</td>
<td>0</td>
<td>11.9</td>
<td>0</td>
<td>18.5</td>
<td>22.2</td>
<td>36.5</td>
<td>5.1</td>
</tr>
<tr>
<td>Inherited</td>
<td>4.2</td>
<td>10.3</td>
<td>6.5</td>
<td>7.1</td>
<td>7</td>
<td>13.0</td>
<td>11.1</td>
<td>7.7</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3.4</td>
<td>3.2</td>
<td>4.8</td>
<td>11.6</td>
<td>1.9</td>
<td>3.7</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td><strong>MEDIUM AND LARGE ENTERPRISES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner-established</td>
<td>86.7</td>
<td>69.2</td>
<td>90.0</td>
<td>70.0</td>
<td>72.2</td>
<td>61.5</td>
<td>37.5</td>
<td>54.5</td>
<td>89.4</td>
</tr>
<tr>
<td>Bought</td>
<td>6.7</td>
<td>15.4</td>
<td>10.0</td>
<td>16.0</td>
<td>5.6</td>
<td>20.8</td>
<td>41.7</td>
<td>3.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Inherited</td>
<td>6.7</td>
<td>15.4</td>
<td>0.0</td>
<td>14.0</td>
<td>16.7</td>
<td>3.8</td>
<td>16.7</td>
<td>9.0</td>
<td>12.5</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5.6</td>
<td>3.8</td>
<td>4.2</td>
<td>0.0</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Total observations</td>
<td>125</td>
<td>117</td>
<td>134</td>
<td>181</td>
<td>160</td>
<td>146</td>
<td>124</td>
<td>103</td>
<td>96</td>
</tr>
</tbody>
</table>

**Note:** Microenterprises (<10 employees), small enterprises (11-49 employees), medium enterprises (50-99 employees), and large enterprises (>100 employees).

**Source:** Authors' calculations, based on RPEID enterprise surveys, 1993-99.

in the small and medium and large enterprises, while in Mozambique such purchases ranged across all size classes. The high percentages of purchased firms are a reflection of the political histories of both countries. In Zimbabwe in the 1970s and 1980s, many white firm-owners sold out and left the country. In Mozambique, many firms, even very small enterprises, were purchased during the mass privatization program in the mid-1990s.

Firms rely heavily on informal sources of finance for start-up capital, as might be expected, given the thin credit markets in Sub-Saharan Africa (Table 8-3). The owner's
Table 8-3 Sources of Start-up Finance (percent of firms using this source)

<table>
<thead>
<tr>
<th>Sources of start-up finance</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL FIRMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>66.0</td>
<td>83.3</td>
<td>75.9</td>
<td>71.1</td>
<td>78.4</td>
<td>83.8</td>
<td>77.5</td>
<td>78.5</td>
<td>79.8</td>
</tr>
<tr>
<td>Friends or relatives</td>
<td>5.1</td>
<td>7.3</td>
<td>16.1</td>
<td>5.74</td>
<td>9.3</td>
<td>4.0</td>
<td>5.8</td>
<td>5.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Foreign bank or donor</td>
<td>3.4</td>
<td>3.2</td>
<td>0.5</td>
<td>2.15</td>
<td>3.0</td>
<td>4.2</td>
<td>1.2</td>
<td>0.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Local bank</td>
<td>8.8</td>
<td>2.9</td>
<td>2.6</td>
<td>16.1</td>
<td>3.6</td>
<td>5.0</td>
<td>7.6</td>
<td>8.2</td>
<td>8.5</td>
</tr>
<tr>
<td>Money lender</td>
<td>1.1</td>
<td>0.4</td>
<td>0.3</td>
<td>0.67</td>
<td>0.0</td>
<td>0.1</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Supplier</td>
<td>4.1</td>
<td>1.2</td>
<td>1.4</td>
<td>0.90</td>
<td>1.5</td>
<td>1.5</td>
<td>0.1</td>
<td>1.02</td>
<td>0.0</td>
</tr>
<tr>
<td>MICROENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>70.4</td>
<td>80.8</td>
<td>74.5</td>
<td>77.4</td>
<td>80.8</td>
<td>86.0</td>
<td>81.41</td>
<td>87.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Friends or relatives</td>
<td>7.9</td>
<td>10.2</td>
<td>19.1</td>
<td>7.9</td>
<td>13.7</td>
<td>3.7</td>
<td>7.4</td>
<td>7.9</td>
<td>n.a.</td>
</tr>
<tr>
<td>Foreign bank or donor</td>
<td>0.7</td>
<td>4.4</td>
<td>0.8</td>
<td>1.1</td>
<td>0.8</td>
<td>4.5</td>
<td>1.0</td>
<td>0.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Local bank</td>
<td>4.6</td>
<td>0.2</td>
<td>1.0</td>
<td>9.2</td>
<td>2.0</td>
<td>2.2</td>
<td>1.3</td>
<td>3.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Money lender</td>
<td>1.1</td>
<td>0.7</td>
<td>0.0</td>
<td>1.1</td>
<td>0.0</td>
<td>0.0</td>
<td>2.3</td>
<td>0.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Supplier</td>
<td>5.2</td>
<td>2.2</td>
<td>1.3</td>
<td>1.1</td>
<td>1.1</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>SMALL ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>61.3</td>
<td>88.0</td>
<td>75.0</td>
<td>67.5</td>
<td>73.8</td>
<td>84.5</td>
<td>82.2</td>
<td>78.1</td>
<td>83.5</td>
</tr>
<tr>
<td>Friends or relatives</td>
<td>3.8</td>
<td>8.0</td>
<td>13.9</td>
<td>5.0</td>
<td>5.5</td>
<td>4.5</td>
<td>0.0</td>
<td>7.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Foreign bank or donor</td>
<td>2.3</td>
<td>1.8</td>
<td>0.0</td>
<td>1.0</td>
<td>5.8</td>
<td>2.1</td>
<td>0.0</td>
<td>1.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Local bank</td>
<td>11.2</td>
<td>0.0</td>
<td>4.2</td>
<td>19.5</td>
<td>6.3</td>
<td>6.4</td>
<td>6.9</td>
<td>4.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Money lender</td>
<td>1.7</td>
<td>0.0</td>
<td>1.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Supplier</td>
<td>4.8</td>
<td>0.0</td>
<td>2.1</td>
<td>1.6</td>
<td>0.9</td>
<td>1.1</td>
<td>0.0</td>
<td>1.9</td>
<td>0.0</td>
</tr>
<tr>
<td>MEDIUM AND LARGE ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>63.6</td>
<td>84.8</td>
<td>88.7</td>
<td>64.9</td>
<td>79.1</td>
<td>77.7</td>
<td>73.2</td>
<td>70.2</td>
<td>77.1</td>
</tr>
<tr>
<td>Friends or relatives</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.2</td>
<td>1.9</td>
<td>3.6</td>
<td>6.7</td>
<td>0.5</td>
<td>2.2</td>
</tr>
<tr>
<td>Foreign bank or donor</td>
<td>13.0</td>
<td>1.5</td>
<td>0.0</td>
<td>4.3</td>
<td>5.9</td>
<td>6.5</td>
<td>1.8</td>
<td>0.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Local bank</td>
<td>15.4</td>
<td>12.2</td>
<td>11.2</td>
<td>23.4</td>
<td>4.0</td>
<td>7.8</td>
<td>11.9</td>
<td>19.4</td>
<td>10.2</td>
</tr>
<tr>
<td>Money lender</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
<td>0.0</td>
<td>0.6</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Supplier</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.7</td>
<td>3.6</td>
<td>0.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Percentages do not add up to 100, as miscellaneous sources of financing were reported in the "other" category.
Source: Authors' calculations, based on AfTED enterprise surveys, 1993-99.

own savings are the predominant source in all countries, followed by loans from friends and relatives. Formal sources of credit, such as bank loans, play a very small role.

It is noteworthy that the percentage of own savings in total start-up finance does not vary much across the size classes of enterprises. The founders of small enterprises are just about as likely to use their savings as the chief source of start-up capital as large enterprises. Loans from friends and relatives, however, decline significantly as the size of enterprise increases.

While bank loans are a small source of start-up financing for entrepreneurial firms in Sub-Saharan Africa, there is a significant difference between large and small enterprises in the likelihood of getting access to this source. Medium and large firms are much more likely to have received funds from a bank than micro and small firms. If the largest enterprises were separated from the medium and large size class, this result would become even more striking. It is also interesting to note that, among formal sources of start-up capital, foreign banks play a role, albeit quite small. About 2.5 percent
of total start-up finance across the region is funded by foreign banks, mostly in the larger firm size classes.

The Entrepreneurs

What are the attributes and endowments of entrepreneurs running firms in Sub-Saharan Africa? To get a better picture, we drew on the RPED enterprise surveys, which gathered data on the backgrounds of individual entrepreneurs in each country, including details about their age, education, and experience in business, as well as employment histories of their parents. In addition, the surveys collected information on the entrepreneur's assets, access to finance (formal and informal), and professional relationships.

One might expect, as in other parts of the world, that entrepreneurs in Sub-Saharan Africa emerge from backgrounds where they learned something about business at an early age. The data lend credence to this hypothesis. The great majority of entrepreneurs in the sample come from families where the father owned a business (Table 8-4). On average, across the seven countries where data were available, fully 40 percent of the entrepreneurs came from backgrounds where the father owned a manufacturing or

<table>
<thead>
<tr>
<th>Occupation of father</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL FIRMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own business, trading</td>
<td>14</td>
<td>9</td>
<td>24</td>
<td>67</td>
<td>28</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>Own business, manuf.</td>
<td>26</td>
<td>26</td>
<td>16</td>
<td>40</td>
<td>31</td>
<td>28</td>
<td>24</td>
</tr>
<tr>
<td>Own business, farming</td>
<td>41</td>
<td>33</td>
<td>53</td>
<td>36</td>
<td>62</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>Employee</td>
<td>26</td>
<td>25</td>
<td>27</td>
<td>12</td>
<td>28</td>
<td>46</td>
<td>33</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>24</td>
<td>14</td>
<td>26</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>MICROENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own business, trading</td>
<td>2</td>
<td>4</td>
<td>17</td>
<td>31</td>
<td>14</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Own business, manuf.</td>
<td>13</td>
<td>13</td>
<td>11</td>
<td>9</td>
<td>13</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Own business, farming</td>
<td>29</td>
<td>26</td>
<td>36</td>
<td>25</td>
<td>43</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Employee</td>
<td>13</td>
<td>18</td>
<td>18</td>
<td>14</td>
<td>17</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>17</td>
<td>12</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>SMALL ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own business, trading</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>16</td>
<td>11</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Own business, manuf.</td>
<td>8</td>
<td>6</td>
<td>2</td>
<td>14</td>
<td>9</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Own business, farming</td>
<td>12</td>
<td>6</td>
<td>13</td>
<td>4</td>
<td>16</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Employee</td>
<td>12</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MEDIUM AND LARGE ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own business, trading</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>3</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Own business, manuf.</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>17</td>
<td>9</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Own business, farming</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Employee</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total observations</td>
<td>125</td>
<td>117</td>
<td>134</td>
<td>181</td>
<td>160</td>
<td>146</td>
<td>124</td>
</tr>
</tbody>
</table>

Note: These questions were not asked in the Nigeria and Mozambique surveys.
Source: Authors’ calculations, based on RPED surveys, 1993–99.
trading business. If the experience of the father's being an employee of a business concern is included, the percentage rises to about 60 percent, ranging from 50 percent in Ghana to 72 percent in Zimbabwe.

The importance of this kind of upbringing increases as one moves up through the size classes of enterprise. Microentrepreneurs are more likely to have come from family backgrounds where the father was in farming. Across the countries, only 25 percent of microentrepreneurs had fathers who owned trading or manufacturing businesses. Moving up to the small enterprise size class, this increases to 41 percent, and to the medium and large size classes, it jumps to 62 percent, ranging from 40 percent in Ghana to 80 percent in Cameroon.

It would appear that education matters in running larger enterprises. Table 8-5 presents the highest level of education achieved by entrepreneurs. On average, about 40 percent of the entrepreneurs completed a secondary school education, ranging from 11 percent in Nigeria to almost 50 percent in Ghana. A significant number had also completed university degrees, about 26 percent across the sample. Nigeria had a very high number of entrepreneurs with university degrees in the sample (71 percent), in large part because average firm size in the Nigeria survey is larger. Firms listed on the stock exchange formed a significant part of the sample in Nigeria, unlike the more representative samples selected in the other countries. It is interesting to note that, as one moves up from the micro and small enterprise size classes to the larger size classes, the

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL FIRMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.8</td>
<td>22.0</td>
<td>11.1</td>
<td>3.2</td>
<td>4.8</td>
<td>3.3</td>
<td>2.3</td>
<td>0.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Primary</td>
<td>15.5</td>
<td>20.3</td>
<td>5.2</td>
<td>28.2</td>
<td>34.9</td>
<td>15.9</td>
<td>13.3</td>
<td>17.7</td>
<td>5.2</td>
</tr>
<tr>
<td>Secondary</td>
<td>35.7</td>
<td>32.2</td>
<td>48.9</td>
<td>45.2</td>
<td>30.1</td>
<td>45.0</td>
<td>25.8</td>
<td>44.1</td>
<td>10.8</td>
</tr>
<tr>
<td>University</td>
<td>34.1</td>
<td>8.5</td>
<td>13.3</td>
<td>23.4</td>
<td>13.3</td>
<td>17.2</td>
<td>25.0</td>
<td>23.5</td>
<td>70.8</td>
</tr>
<tr>
<td>Vocational</td>
<td>14.0</td>
<td>16.9</td>
<td>21.5</td>
<td>16.9</td>
<td>18.5</td>
<td>33.6</td>
<td>14.7</td>
<td>40.6</td>
<td></td>
</tr>
<tr>
<td>MICROENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1.5</td>
<td>28.9</td>
<td>12.6</td>
<td>4.3</td>
<td>4.1</td>
<td>7.5</td>
<td>4.3</td>
<td>0.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Primary</td>
<td>16.4</td>
<td>23.7</td>
<td>4.2</td>
<td>43.0</td>
<td>48.5</td>
<td>26.9</td>
<td>23.9</td>
<td>10.7</td>
<td>n.a.</td>
</tr>
<tr>
<td>Secondary</td>
<td>35.8</td>
<td>30.3</td>
<td>52.6</td>
<td>40.9</td>
<td>32.0</td>
<td>44.8</td>
<td>19.6</td>
<td>39.2</td>
<td>n.a.</td>
</tr>
<tr>
<td>University</td>
<td>31.3</td>
<td>6.6</td>
<td>11.6</td>
<td>11.8</td>
<td>6.2</td>
<td>7.5</td>
<td>10.9</td>
<td>28.5</td>
<td>n.a.</td>
</tr>
<tr>
<td>Vocational</td>
<td>14.9</td>
<td>10.5</td>
<td>18.9</td>
<td>0.0</td>
<td>9.3</td>
<td>13.4</td>
<td>41.3</td>
<td>21.4</td>
<td>n.a.</td>
</tr>
<tr>
<td>SMALL ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.0</td>
<td>14.3</td>
<td>10.0</td>
<td>4.8</td>
<td>6.5</td>
<td>0.0</td>
<td>3.6</td>
<td>0.0</td>
<td>5.1</td>
</tr>
<tr>
<td>Primary</td>
<td>12.8</td>
<td>10.7</td>
<td>6.7</td>
<td>14.3</td>
<td>15.2</td>
<td>7.1</td>
<td>14.3</td>
<td>21.1</td>
<td>7.6</td>
</tr>
<tr>
<td>Secondary</td>
<td>36.2</td>
<td>39.3</td>
<td>46.7</td>
<td>47.6</td>
<td>28.3</td>
<td>50.0</td>
<td>14.3</td>
<td>50.0</td>
<td>25.6</td>
</tr>
<tr>
<td>University</td>
<td>34.0</td>
<td>10.7</td>
<td>10.0</td>
<td>33.3</td>
<td>17.4</td>
<td>16.1</td>
<td>25.0</td>
<td>11.5</td>
<td>61.5</td>
</tr>
<tr>
<td>Vocational</td>
<td>17.0</td>
<td>25.0</td>
<td>26.7</td>
<td>32.6</td>
<td>26.8</td>
<td>42.9</td>
<td>17.3</td>
<td>48.7</td>
<td></td>
</tr>
<tr>
<td>MEDIUM AND LARGE ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Primary</td>
<td>20.0</td>
<td>21.4</td>
<td>10.0</td>
<td>0.0</td>
<td>17.4</td>
<td>7.1</td>
<td>3.7</td>
<td>18.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>33.3</td>
<td>29.6</td>
<td>20.0</td>
<td>13.2</td>
<td>26.1</td>
<td>35.7</td>
<td>37.0</td>
<td>36.3</td>
<td>17.8</td>
</tr>
<tr>
<td>University</td>
<td>46.7</td>
<td>14.3</td>
<td>40.0</td>
<td>50.9</td>
<td>34.8</td>
<td>42.9</td>
<td>37.0</td>
<td>45.4</td>
<td>76.7</td>
</tr>
<tr>
<td>Vocational</td>
<td>0.0</td>
<td>35.7</td>
<td>30.0</td>
<td>35.8</td>
<td>17.4</td>
<td>14.3</td>
<td>22.2</td>
<td>0.0</td>
<td>35.7</td>
</tr>
<tr>
<td>Total observations</td>
<td>125</td>
<td>117</td>
<td>134</td>
<td>181</td>
<td>160</td>
<td>146</td>
<td>124</td>
<td>102</td>
<td>106</td>
</tr>
</tbody>
</table>

Source: Authors' calculations, based on RPEI D surveys, 1993–99.
number of entrepreneurs with no formal education declines to almost zero. Across the
countries, differences in formal education attained by micro versus small enterprise
entrepreneurs show up in terms of the numbers with university degrees. In both size
classes, about 36 percent of entrepreneurs completed secondary school, while the aver-
age number of entrepreneurs with university degrees rises from only 12 percent in the
micro size class to 21 percent in the small size class. In the medium and large size class,
the average number of entrepreneurs with secondary education drops to 27 percent
across the region. This drop occurs because the number of entrepreneurs with university
degrees increases to 43 percent (more on the role of education in the region later).

What about human capital formation outside formal training institutions? Table 8-6
presents information on the percentage of entrepreneurs who have received training
in various types of apprenticeship programs, as well as short courses on business and
technical subjects in special programs sponsored by NGOs, aid agencies, and state
organizations.6

As these data indicate, a significant number of entrepreneurs have gone through
apprenticeship programs. In Sub-Saharan Africa, these are informal apprenticeships
offered by the firms in particular industries. Parents often bring their children to firms
and pay a fee for the training received. In some cases, after acquiring some level of
skill, the apprentice might be paid a small wage. Upon completion of the program,
the firm often gives the apprentice a “certificate” testifying to the skill level achieved.
Apprenticeships such as these appear to be much more prevalent in West African
countries than in those in East or Southern Africa, which accounts for the lower
percentage of entrepreneurs with apprenticeship backgrounds in Kenya, Tanzania,
Zambia, and Zimbabwe. (The low percentage in Cameroon is a mystery; apprentice-
ship programs are numerous in this country, particularly in the Anglophone area.) It
should be noted that apprenticeships are important only for entrepreneurs running
micro and small enterprises. Almost no entrepreneurs running enterprises in the
medium and large size class have participated in apprenticeship programs.

<table>
<thead>
<tr>
<th>Apprenticeships or training</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL FIRMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>23 (18.4)</td>
<td>68 (59.1)</td>
<td>74 (55.6)</td>
<td>40 (21.9)</td>
<td>45 (31.3)</td>
<td>21 (13.9)</td>
<td>12 (9.4)</td>
</tr>
<tr>
<td>Training</td>
<td>39 (30.5)</td>
<td>8 (6.8)</td>
<td>34 (27.2)</td>
<td>43 (23.9)</td>
<td>56 (35)</td>
<td>40 (26.7)</td>
<td>55 (44.4)</td>
</tr>
<tr>
<td>MICROENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>17 (25.8)</td>
<td>57 (75.1)</td>
<td>55 (57.9)</td>
<td>28 (30.8)</td>
<td>42 (46.2)</td>
<td>12 (17.6)</td>
<td>3 (6.5)</td>
</tr>
<tr>
<td>Training</td>
<td>24 (36.9)</td>
<td>5 (6.7)</td>
<td>21 (23.1)</td>
<td>21 (24.1)</td>
<td>28 (29.5)</td>
<td>17 (24.6)</td>
<td>21 (47.7)</td>
</tr>
<tr>
<td>SMALL ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>5 (11.4)</td>
<td>9 (33.3)</td>
<td>18 (62.1)</td>
<td>7 (17.5)</td>
<td>1 (2.7)</td>
<td>9 (16.1)</td>
<td>4 (14.3)</td>
</tr>
<tr>
<td>Training</td>
<td>14 (19.8)</td>
<td>3 (10.3)</td>
<td>9 (33.3)</td>
<td>12 (29.3)</td>
<td>22 (47.8)</td>
<td>17 (30.9)</td>
<td>12 (42.9)</td>
</tr>
<tr>
<td>MEDIUM AND LARGE ENTERPRISES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>1 (6.2)</td>
<td>2 (16.7)</td>
<td>1 (11.1)</td>
<td>5 (9.6)</td>
<td>2 (12.5)</td>
<td>0</td>
<td>5 (9.3)</td>
</tr>
<tr>
<td>Training</td>
<td>1 (6.3)</td>
<td>0</td>
<td>4 (57.1)</td>
<td>10 (19.2)</td>
<td>6 (31.6)</td>
<td>6 (23.1)</td>
<td>22 (42.3)</td>
</tr>
</tbody>
</table>

Source: Authors' calculations, based on RPED surveys, 1993-99.
Table 8-6 also shows that a significant number of entrepreneurs are receiving some business and technical training outside formal educational institutions. With the exception of Cote d’Ivoire, the number of entrepreneurs who have attended at least one business or technical training course in the last year is substantial. Most of the entrepreneurs attending these short courses are in the micro and small enterprise size classes. While these figures indicate that some special training is available for entrepreneurs, they should not be interpreted as evidence of a rich learning environment in Sub-Saharan Africa. To the contrary, in most of the region technical training is a scarce commodity (see Biggs, Shah, and Srivastava 1995 for a discussion of the problem). Zimbabwe has a bit more training available than the other countries, which probably accounts for the larger percentage of entrepreneurs in larger enterprises attending courses. However, when relevant technical training courses are available in the region, entrepreneurs appear to take advantage of them, particularly those running micro and small enterprises.

The survey data across the region indicate that entrepreneurs average about 9 years of business experience before starting their companies. As one might expect, entrepreneurs of larger firms average more years of prior experience before start-up than those of smaller firms: the figures are 8.2 years for microenterprises, 9.1 years for small firms, and 10.3 years for medium and large firms.

As for the type of business experience acquired before starting their own firms, entrepreneurs were asked to specify where their experience was accumulated: as an employee of another business firm in the same industry, as a self-employed owner of another company in the same or related industry, or as a family member working with parents in a business. The results are tabulated in Table 8-7.

Table 8-7  Percentage of Entrepreneurs with Prior Experience in the Industry

<table>
<thead>
<tr>
<th>Prior experience</th>
<th>Cote d’Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL FIRMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>31.9</td>
<td>69.4</td>
<td>65.7</td>
<td>46.8</td>
<td>64.4</td>
<td>42.8</td>
<td>48.3</td>
<td>56.9</td>
</tr>
<tr>
<td>Parents in business</td>
<td>7.8</td>
<td>9.9</td>
<td>11.0</td>
<td>19.6</td>
<td>7.2</td>
<td>13.8</td>
<td>18.0</td>
<td>16.7</td>
</tr>
<tr>
<td>Self-employed</td>
<td>20.2</td>
<td>12.4</td>
<td>8.0</td>
<td>13.9</td>
<td>18.4</td>
<td>12.5</td>
<td>27.0</td>
<td>51.4</td>
</tr>
<tr>
<td><strong>MICROENTERPRISES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>57.6</td>
<td>76.9</td>
<td>64.3</td>
<td>51.6</td>
<td>54.6</td>
<td>52.9</td>
<td>47.8</td>
<td>56.6</td>
</tr>
<tr>
<td>Parents in business</td>
<td>3.0</td>
<td>7.7</td>
<td>11.3</td>
<td>11.8</td>
<td>7.2</td>
<td>11.8</td>
<td>8.5</td>
<td>26.6</td>
</tr>
<tr>
<td>Self-employed</td>
<td>25.8</td>
<td>14.1</td>
<td>8.6</td>
<td>16.5</td>
<td>8.8</td>
<td>17.4</td>
<td>20.0</td>
<td>n.a</td>
</tr>
<tr>
<td><strong>SMALL FIRMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>45.8</td>
<td>58.6</td>
<td>76.7</td>
<td>35.7</td>
<td>39.1</td>
<td>35.7</td>
<td>39.3</td>
<td>72.4</td>
</tr>
<tr>
<td>Parents in business</td>
<td>12.5</td>
<td>10.3</td>
<td>10.0</td>
<td>23.8</td>
<td>6.5</td>
<td>19.6</td>
<td>28.6</td>
<td>20.6</td>
</tr>
<tr>
<td>Self-employed</td>
<td>18.8</td>
<td>10.3</td>
<td>7.1</td>
<td>10.9</td>
<td>25.0</td>
<td>8.3</td>
<td>34.4</td>
<td>65.0</td>
</tr>
<tr>
<td><strong>MEDIUM AND LARGE FIRMS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>46.7</td>
<td>50.0</td>
<td>44.4</td>
<td>47.2</td>
<td>16.1</td>
<td>32.1</td>
<td>42.6</td>
<td>38.7</td>
</tr>
<tr>
<td>Parents in business</td>
<td>13.3</td>
<td>21.4</td>
<td>11.1</td>
<td>26.4</td>
<td>8.7</td>
<td>7.1</td>
<td>22.2</td>
<td>6.12</td>
</tr>
<tr>
<td>Self-employed</td>
<td>0.0</td>
<td>7.1</td>
<td>0.0</td>
<td>7.5</td>
<td>8.7</td>
<td>28.6</td>
<td>9.3</td>
<td>22.4</td>
</tr>
</tbody>
</table>

Note: The question was asked slightly differently in Nigeria. Workers with experience in other industries were combined with those who had experience in the same industry.
Source: Authors' calculations, based on RPEI surveys, 1993-99.
A high percentage of entrepreneurs across the countries (55 percent) got their business experience before start-up working for a firm in the same industry. This result is consistent with what is often found in studies of entrepreneurs in other parts of the world (Evans and Leighton 1989). Experience is gained from working for a firm in the same or a related industry; employees then leave to start-up their own businesses, based on the knowledge, experience, and relationships they have accumulated. It is interesting to note that the mean value for this variable is negatively related to firm size. It declines from 58 percent of entrepreneurs acquiring their experience as employees in the same industry in microenterprises, to 47 percent in the small size class, to 40 percent in the medium and large size class. One explanation for this negative relation might be that prior employees are leaving to start a smaller form of the business, or part of the business, they have worked for. Another, and more probable, explanation for Sub-Saharan Africa, particularly for micro and small firms, however, might be that our data include responses from many entrepreneurs who have gone through apprenticeship programs. As shown in Table 8-6, most of the entrepreneurs with apprenticeship backgrounds are concentrated in the micro and small firm size classes. They may have interpreted the “prior business experience” question to include their experience as apprentices in a firm in the industry. As most apprentices start up micro and small firms in the same industry where the apprenticeship took place, this could explain the large numbers at the bottom end.

**BECOMING AN ENTREPRENEUR IN SUB-SAHARAN AFRICA**

What factors determine the probability of being an entrepreneur in Sub-Saharan Africa? As our theoretical discussion pointed out, opportunity costs are purported to play an important role in the supply of entrepreneurs, together with various personal attributes. Examining this hypothesis, Leo Sleuwaegen and M. Goedhuys (1996, 1998) use the RPED data on 133 entrepreneurs and more than 800 employees in Côte d’Ivoire to develop a choice model to study the underlying determinants of entrepreneurship in Africa. The opportunity cost of the entrepreneurs (the expected wage in the labor market) is estimated from a wage function run on the sample of employees. A logit model is then estimated relating the probability of being an entrepreneur to the expected wage and to various attributes of the individual, proxied by variables on education, work experience, and apprenticeship training. It should be noted that the results of such a model are primarily descriptive, in that it is difficult to place behavioral interpretations on cross-sectional estimates of entrepreneurial selection and earnings. Nevertheless, the results reported in the study are helpful because they place restrictions on the behavioral models of entrepreneurial selections that might be entertained.

The estimated results of the model indicate that the higher the expected wage in the labor market, the lower the probability of becoming an entrepreneur. The study also finds that an individual is more likely to be an entrepreneur if he has achieved higher levels of formal education, has acquired work experience in the same sector, or has been an apprentice. Calculated at the mean values of the sample,
the authors find that the probability of being an entrepreneur increases by 27 percent for an individual with higher formal education and by 18 percent for an individual having prior experience in the industry. Such findings are consistent with the cross-country data on entrepreneurs' education and experience found in Tables 8-5 and 8-7 in this study, as well as the findings of David Evans and Linda Leighton (1989) for the United States, Hedley Ress and Anup Shah (1986) for the United Kingdom, and David Blau (1985) for South Asian developing countries.

For those without much formal education, the analysis indicates that apprenticeship is the path to becoming an entrepreneur in manufacturing in Sub-Saharan Africa. An interaction term in the model, evaluated at the sample mean, indicates that apprenticeship increases the probability of being an entrepreneur for individuals without much formal education by 21 percent. This points to an important feature of dualism in the size distribution of enterprises in the region. As already indicated by the data in Tables 8-5 and 8-6 above, microenterprises and, in some cases, small enterprises at the lower tail of the distribution are run by a mix of entrepreneurs: some with apprenticeship backgrounds and little formal education, owning mostly microenterprises; others, with secondary school education, owning mostly small enterprises. Among the larger firm size classes in the upper tail of the distribution, there are many more entrepreneurs with higher levels of formal education. Thus, there would appear to be dual tracks to entrepreneurship in Sub-Saharan Africa. One is through apprenticeship to micro-entrepreneurship; the other is through formal education to ownership of a medium to large manufacturing operation.

The authors also examine the important question of the participation of African entrepreneurs in the manufacturing sector as against the relatively large presence of minority entrepreneurs from Asia, Europe, and the Middle East, particularly in terms of capital assets. Their study finds that the mere fact of being an African reduces the probability that an individual is an entrepreneur by more than 95 percent. The authors suggest that this finding might be attributable to the existence of liquidity constraints for Africans in financing the start-up of their businesses. They point to the fact that the wage effect in alternative employment in the model is far less strong for Africans than for minority entrepreneurs and conjecture that this reduced impact of opportunity cost on African entrepreneurship may result from the binding influence of liquidity constraints, which can constrain entry. With the exception of these limited speculations, Sleuwaegen and Goedhuys do not probe the issue of African entrepreneurship further, as the necessary data were unavailable to do so.

In the next section, we use our exceptionally rich data set to explore this problem of African entrepreneurship more fully. We present evidence indicating the path that Africans generally follow into manufacturing entrepreneurship and offer an explanation for the observed pattern.

Ethnicity and Entrepreneurship
The role of minority entrepreneurs in the economies of most Sub-Saharan African countries is substantial. Particularly in manufacturing, Asians and Europeans (and to
Middle Easterners) control a major share of productive resources across the region. Depending on one's point of view, these minority entrepreneurs are seen as playing a valuable role in fostering the growth process or as exploiting local resources and extracting regional wealth. In many countries, one hears complaints that there are just not enough African entrepreneurs running important manufacturing operations. What's the problem? Why don't more Africans become entrepreneurs in the manufacturing sector in Sub-Saharan Africa? And, when they do choose to establish entrepreneurial firms, why don't they become important players?

To answer these questions, it will help to get a better understanding of the distinctions between the African and minority groups of entrepreneurs operating in the sector today. Table 8.8 breaks down our sample of entrepreneurs across the region into three ethnic groups: African, Asian, and European. It should be noted that many of the entrepreneurs classified as “non-African” come from families with a long history in Africa, who often have citizenship in the countries where their firms are located. Minority entrepreneurs make up about 40 percent of the total sample, but their importance varies considerably across the countries: from 14 percent in Cameroon to more than 50 percent in Kenya. Ethnicity of minority entrepreneurs also varies by country, with Asians being more important in Kenya, Tanzania, and Zambia, and Europeans being more important in Cote d’Ivoire and Zimbabwe.

The incidence of minority entrepreneurs also varies significantly by firm size. African entrepreneurs predominate as owners in the micro and small enterprise size classes, while minority entrepreneur-owners predominate in the larger size classes. More than 80 percent of microenterprises in the sample are African-owned, and this proportion does not change much across the countries, with the exception of Mozambique. The percentage of African owners declines steadily to 56 percent of ownership in the small size class and to 34 percent in the large size class. Zimbabwe

<table>
<thead>
<tr>
<th>Table 8.8 Distribution of Entrepreneurs by Ethnic Background (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cameron</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td><strong>ALL FIRMS</strong></td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>European</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td><strong>MICROENTERPRISES</strong></td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>European</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td><strong>SMALL FIRMS</strong></td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>European</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td><strong>MEDIUM AND LARGE FIRMS</strong></td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>European</td>
</tr>
<tr>
<td>Asian</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations, based on R PED surveys, 1993-99.
Table 8-9 Human Capital Endowments of Entrepreneurs by Ethnic Background

<table>
<thead>
<tr>
<th>Endowments</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AFRICAN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>39.8</td>
<td>39.4</td>
<td>43.0</td>
<td>40.6</td>
<td>44.4</td>
<td>44.0</td>
<td>45.6</td>
<td>51.1</td>
</tr>
<tr>
<td>Years of experience</td>
<td>5.6</td>
<td>5.6</td>
<td>8.3</td>
<td>8.07</td>
<td>8.18</td>
<td>7.3</td>
<td>n.a.</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>EDUCATION (% OF ENTREPRENEURS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.5</td>
<td>26.8</td>
<td>4.6</td>
<td>5.1</td>
<td>5.2</td>
<td>5.6</td>
<td>0.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Primary</td>
<td>16.2</td>
<td>32.2</td>
<td>36.0</td>
<td>42.2</td>
<td>18.7</td>
<td>45.2</td>
<td>25.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Secondary</td>
<td>34.1</td>
<td>22.5</td>
<td>31.4</td>
<td>28.4</td>
<td>46.8</td>
<td>45.2</td>
<td>48.1</td>
<td>23.0</td>
</tr>
<tr>
<td>Technical</td>
<td>14.5</td>
<td>10.7</td>
<td>16.2</td>
<td>12.0</td>
<td>10.4</td>
<td>n.a.</td>
<td>11.1</td>
<td>n.a.</td>
</tr>
<tr>
<td>University</td>
<td>34.1</td>
<td>7.5</td>
<td>11.6</td>
<td>12.0</td>
<td>18.2</td>
<td>3.7</td>
<td>14.8</td>
<td>66.6</td>
</tr>
<tr>
<td>Vocational</td>
<td>22.8</td>
<td>27.3</td>
<td>n.a.</td>
<td>n.a.</td>
<td>43.3</td>
<td>43.4</td>
<td>35.0</td>
<td>39.7</td>
</tr>
<tr>
<td>Foreign firm work</td>
<td>17.8</td>
<td>17.8</td>
<td>9.3</td>
<td>5.1</td>
<td>21.6</td>
<td>13.2</td>
<td>15.0</td>
<td>38.4</td>
</tr>
<tr>
<td><strong>NON-AFRICAN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>53.0</td>
<td>50.7</td>
<td>48.6</td>
<td>52.1</td>
<td>47.0</td>
<td>48.1</td>
<td>45.6</td>
<td>53.3</td>
</tr>
<tr>
<td>Years of experience</td>
<td>10.2</td>
<td>11.9</td>
<td>10.7</td>
<td>15.2</td>
<td>13.5</td>
<td>9.3</td>
<td>n.a.</td>
<td>6.8</td>
</tr>
<tr>
<td><strong>EDUCATION (% OF ENTREPRENEURS)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.0</td>
<td>2.7</td>
<td>2.0</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Primary</td>
<td>0.0</td>
<td>8.1</td>
<td>14.2</td>
<td>14.2</td>
<td>9.3</td>
<td>10.1</td>
<td>17.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Secondary</td>
<td>36.3</td>
<td>37.8</td>
<td>39.8</td>
<td>42.8</td>
<td>46.8</td>
<td>48.1</td>
<td>46.3</td>
<td>11.1</td>
</tr>
<tr>
<td>Technical</td>
<td>9.09</td>
<td>37.8</td>
<td>12.2</td>
<td>9.5</td>
<td>15.6</td>
<td>n.a.</td>
<td>12.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>University</td>
<td>54.5</td>
<td>13.5</td>
<td>31.6</td>
<td>30.9</td>
<td>28.1</td>
<td>41.7</td>
<td>24.3</td>
<td>88.8</td>
</tr>
<tr>
<td>Vocational</td>
<td>9.09</td>
<td>42.1</td>
<td>n.a.</td>
<td>n.a.</td>
<td>21.8</td>
<td>31.6</td>
<td>23.5</td>
<td>44.4</td>
</tr>
<tr>
<td>Foreign firm work</td>
<td>36.3</td>
<td>34.2</td>
<td>12.1</td>
<td>11.9</td>
<td>12.5</td>
<td>13.9</td>
<td>17.6</td>
<td>94.4</td>
</tr>
</tbody>
</table>

Source: Authors' calculations, based on the ILODE surveys, 1993-99.

and Kenya have the fewest large firms run by African entrepreneurs, while Nigeria and Cameroon have the most.

Significant differences are observed in the endowments of African entrepreneurs compared with their minority counterparts. Differences in human capital are the most striking. As Table 8-9 shows, minority entrepreneurs have generally attained higher levels of formal education. For example, of the entrepreneurs with university education in the sample, more than 70 percent are non-African. African entrepreneurs also have significantly less experience in business, on average, and less experience working for foreign-owned firms, where a substantial amount technology transfer often takes place from more advanced countries.

Taken together, these human capital differences suggest a central hypothesis for why African entrepreneurs congregate mainly in micro and small enterprises, while minority entrepreneurs own and manage larger firms. It is widely recognized that education and experience are a prerequisite for managing more complex organizations.

Minority entrepreneurs have other advantages over their African counterparts, among them comparative financial strength. Table 8-10 summarizes some financial data. While the surveys were unable to gather direct data on all of the entrepreneur's assets, respondents were asked to provide information on a few important assets; this was used to construct a set of proxy variables to appraise net worth and liquidity constraints. The variable title indicates whether the entrepreneur had title to the land.
Table 8-10  Financial Endowments of Entrepreneurs by Ethnic Background (percent responding yes within each category)

<table>
<thead>
<tr>
<th></th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>African</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>38.14</td>
<td>25.26</td>
<td>13.95</td>
<td>25.00</td>
<td>32.99</td>
<td>35.85</td>
<td>45.00</td>
<td>74.36</td>
</tr>
<tr>
<td>Overdraft</td>
<td>39.83</td>
<td>11.58</td>
<td>29.07</td>
<td>11.21</td>
<td>24.74</td>
<td>30.19</td>
<td>10.00</td>
<td>58.97</td>
</tr>
<tr>
<td>Purchase business</td>
<td>92.4</td>
<td>5.26</td>
<td>4.65</td>
<td>87.93</td>
<td>8.25</td>
<td>5.66</td>
<td>27.50</td>
<td>2.56</td>
</tr>
<tr>
<td>Own house</td>
<td>84.75</td>
<td>50.53</td>
<td>46.51</td>
<td>74.14</td>
<td>70.10</td>
<td>37.97</td>
<td>60.00</td>
<td>n.a.</td>
</tr>
<tr>
<td>Own car</td>
<td>83.05</td>
<td>43.16</td>
<td>39.53</td>
<td>29.31</td>
<td>62.89</td>
<td>50.94</td>
<td>37.50</td>
<td>n.a.</td>
</tr>
<tr>
<td><strong>Non-African</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>36.36</td>
<td>31.58</td>
<td>55.56</td>
<td>69.05</td>
<td>71.88</td>
<td>49.37</td>
<td>33.33</td>
<td>38.89</td>
</tr>
<tr>
<td>Overdraft</td>
<td>90.91</td>
<td>47.37</td>
<td>80.81</td>
<td>38.10</td>
<td>51.56</td>
<td>75.95</td>
<td>17.65</td>
<td>77.78</td>
</tr>
<tr>
<td>Purchase business</td>
<td>7.72</td>
<td>26.52</td>
<td>1.11</td>
<td>64.29</td>
<td>18.75</td>
<td>35.44</td>
<td>27.45</td>
<td>5.86</td>
</tr>
<tr>
<td>Own house</td>
<td>81.82</td>
<td>78.95</td>
<td>74.75</td>
<td>78.57</td>
<td>76.56</td>
<td>86.08</td>
<td>64.71</td>
<td>n.a.</td>
</tr>
<tr>
<td>Own car</td>
<td>100.0</td>
<td>94.94</td>
<td>90.91</td>
<td>92.86</td>
<td>93.75</td>
<td>87.34</td>
<td>72.55</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

Source: Authors' calculations, based on RPDJ surveys, 1993–99.

where his plant operates. Own house indicates whether or not the entrepreneur owned his own house, and own car, whether he owned his own car. Other businesses indicates whether the entrepreneur owns other businesses. These three assets, along with land title, serve as proxies for the level of the entrepreneur's net worth and the extent of collateralizable assets under his control that can be used to access formal credit markets. In addition, overdraft indicates whether the entrepreneur currently has access to short-term credit from banks. As Table 8-10 indicates, minority entrepreneurs have more collateralizable assets, as well as much greater access to bank overdrafts and supplier credits to manage day-to-day liquidity problems.

Another potential advantage of minority entrepreneurs is their professional networks. Sometimes called the architecture of the firm, networks of relationships with suppliers, with customers, and with other firms engaged in related activities, inside and outside the country, can help firms respond flexibility to changing circumstances, to achieve easy and open exchanges of information, and, at times, to obtain finance. Table 8-11 presents several variables to assess differences in the network capabilities of African and minority entrepreneurs. Parent in business indicates whether the entrepreneur's parents were, or currently are, in the same business activity. Trade credit indicates whether the entrepreneur is a member of an informal trade credit network. Finally, born in town indicates whether the entrepreneur was born in the town where his factory is located.

Again, the observed differences between African and minority entrepreneurs are marked. Across all four network variables there is an indication that minority entrepreneurs have significantly greater network capacities. In all the countries, minority entrepreneurs enjoy larger relational networks by way of their parents' business connections, their supplier credit connections, and their foreign connections.

Evaluated individually, each of these attributes of African and minority entrepreneurs points to important differences between the two cohorts. However, the
Table 8-11  Network Characteristics of Entrepreneurs by Ethnic Background
(percent responding yes within each category)

<table>
<thead>
<tr>
<th>Network characteristics</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRICAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own other business</td>
<td>39.8</td>
<td>23.16</td>
<td>22.09</td>
<td>25.00</td>
<td>35.05</td>
<td>35.85</td>
<td>35.0</td>
<td>52.56</td>
</tr>
<tr>
<td>Trade credit</td>
<td>55.08</td>
<td>22.11</td>
<td>15.12</td>
<td>11.21</td>
<td>12.37</td>
<td>30.19</td>
<td>45.00</td>
<td>79.49</td>
</tr>
<tr>
<td>Parents in business</td>
<td>6.2</td>
<td>2.1</td>
<td>8.1</td>
<td>12.0</td>
<td>9.6</td>
<td>11.3</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Parents in trade</td>
<td>23.1</td>
<td>97.8</td>
<td>19.7</td>
<td>12.9</td>
<td>9.6</td>
<td>5.6</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Born in town</td>
<td>22.9</td>
<td>18.3</td>
<td>13.9</td>
<td>21.6</td>
<td>12.4</td>
<td>37.7</td>
<td>37.0</td>
<td>n.a.</td>
</tr>
<tr>
<td>Export</td>
<td>5.08</td>
<td>9.47</td>
<td>5.81</td>
<td>0.86</td>
<td>1.03</td>
<td>9.43</td>
<td>12.50</td>
<td>8.97</td>
</tr>
<tr>
<td>Import</td>
<td>55.93</td>
<td>13.68</td>
<td>19.77</td>
<td>10.34</td>
<td>17.53</td>
<td>9.43</td>
<td>37.50</td>
<td>70.51</td>
</tr>
<tr>
<td>NON-AFRICAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own other business</td>
<td>45.55</td>
<td>34.21</td>
<td>39.39</td>
<td>59.52</td>
<td>64.06</td>
<td>62.03</td>
<td>52.94</td>
<td>66.67</td>
</tr>
<tr>
<td>Trade credit</td>
<td>63.64</td>
<td>47.37</td>
<td>41.41</td>
<td>19.05</td>
<td>34.38</td>
<td>92.41</td>
<td>50.98</td>
<td>88.89</td>
</tr>
<tr>
<td>Father in business</td>
<td>63.6</td>
<td>22.9</td>
<td>48.9</td>
<td>45.2</td>
<td>29.7</td>
<td>36.7</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Father in trading</td>
<td>9.1</td>
<td>77.1</td>
<td>33.7</td>
<td>33.3</td>
<td>32.8</td>
<td>27.9</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Born in town</td>
<td>9.1</td>
<td>10.5</td>
<td>59.2</td>
<td>42.9</td>
<td>21.9</td>
<td>53.2</td>
<td>36.6</td>
<td>n.a.</td>
</tr>
<tr>
<td>Export</td>
<td>54.55</td>
<td>39.47</td>
<td>13.13</td>
<td>16.67</td>
<td>6.25</td>
<td>29.11</td>
<td>17.65</td>
<td>5.56</td>
</tr>
<tr>
<td>Import</td>
<td>36.36</td>
<td>23.68</td>
<td>40.40</td>
<td>33.33</td>
<td>35.94</td>
<td>83.02</td>
<td>47.08</td>
<td>83.33</td>
</tr>
</tbody>
</table>

Source: Authors' calculations, based on RPED surveys, 1993-99.

The magnitude of the observed differences may partly reflect aspects of firm characteristics other than the entrepreneur’s endowments (for example, firm size may influence some of the variables) and the significance of the differences may be tenuous. To test the significance and strength of the individual attributes of each of the cohorts and to control for the effects of other variables, we estimate a multivariate probit model. The dependent variable is binary, taking on the value of one for an African entrepreneur and zero otherwise (Table 8-12).

Model 1 in Table 8-12 includes individual and composite variables based on the African and minority cohort data presented in Tables 8-9, 8-10, and 8-11 above. The experience and education variables are as specified in Table 8-9. Technical/vocational training and apprenticeship training variables are also added to the model. The network variables used above include trade credit, born in this town, foreign connections, and parents in business. Under finance, we include two measures: a composite variable asset, which equals one if the entrepreneur owns a car and/or a house and has a title to the land on which his factory is situated, and overdraft, which equals one if the entrepreneur has an overdraft facility at a bank. Sector and country dummies are included to control for industry and country effects.

The estimated results indicate that all the differences between African and minority entrepreneurs detailed in the tables above are indeed significant. African entrepreneurs are younger, hence much less likely to have prior significant experiences in the industry, have less formal education; lack strong professional networks, foreign connections, and significant collaterizable assets; and have limited access to formal and informal
## Table 8-12 Probit Coefficients: Differences between African and Minority Entrepreneurs

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No control for firm size</td>
<td>With firm size</td>
</tr>
<tr>
<td>Intercept</td>
<td>6.72* (0.93)</td>
<td>6.87* (1.00)</td>
</tr>
<tr>
<td>HUMAN CAPITAL ENDOWMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log age</td>
<td>-1.37* (0.23)</td>
<td>-1.15* (0.25)</td>
</tr>
<tr>
<td>Secondary</td>
<td>-0.47* (0.14)</td>
<td>-0.33* (0.15)</td>
</tr>
<tr>
<td>University</td>
<td>-0.69* (0.17)</td>
<td>-0.36* (0.18)</td>
</tr>
<tr>
<td>Technical education</td>
<td>-0.09 (0.14)</td>
<td>-0.03 (0.15)</td>
</tr>
<tr>
<td>Apprentice</td>
<td>0.03 (0.15)</td>
<td>0.02 (0.17)</td>
</tr>
<tr>
<td>NETWORK ENDOWMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade credit</td>
<td>-0.52* (0.14)</td>
<td>-0.31** (0.14)</td>
</tr>
<tr>
<td>Born in this town</td>
<td>-0.54* (0.13)</td>
<td>-0.52* (0.14)</td>
</tr>
<tr>
<td>Foreign connections</td>
<td>-0.33* (0.13)</td>
<td>0.15 (0.15)</td>
</tr>
<tr>
<td>Parents in business</td>
<td>-0.92* (0.14)</td>
<td>-0.99* (0.15)</td>
</tr>
<tr>
<td>FINANCIAL ENDOWMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asset</td>
<td>-0.31* (0.13)</td>
<td>0.02 (0.14)</td>
</tr>
<tr>
<td>Overdraft</td>
<td>-0.51* (0.13)</td>
<td>-0.13 (0.15)</td>
</tr>
<tr>
<td>Lworkers</td>
<td>-0.55* (0.06)</td>
<td>-0.55* (0.15)</td>
</tr>
<tr>
<td>Food</td>
<td>-0.29** (0.16)</td>
<td>-0.15 (0.18)</td>
</tr>
<tr>
<td>Wood</td>
<td>-0.13 (0.15)</td>
<td>-0.01 (0.17)</td>
</tr>
<tr>
<td>Metal</td>
<td>0.21 (0.17)</td>
<td>0.18 (0.18)</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>0.03 (0.21)</td>
<td>0.09 (0.23)</td>
</tr>
<tr>
<td>Kenya</td>
<td>-0.07 (0.19)</td>
<td>-0.29 (0.21)</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.03 (0.19)</td>
<td>-0.01 (0.21)</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.27 (0.21)</td>
<td>0.29 (0.22)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-332.39 (0.21)</td>
<td>-289.72 (0.22)</td>
</tr>
<tr>
<td>N</td>
<td>758</td>
<td>758</td>
</tr>
</tbody>
</table>

* Significant at the 95% confidence level
** Significant at the 90% confidence level

Source: Authors’ calculations.
finance. All these variables show significant differences at the 95 percent confidence level. To what extent are these variables purely size-driven?

To look into this question, we control for firm size (Lworkers, log of total workers) in model 2. We find that the financial variables are no longer significant. This means that, for firms of the same size, there are no significant differences between African and minority entrepreneurs in terms of collaterizable assets and access to formal finance. Our finding is not surprising. Myank Raturi and Anan Swamy (1997), using the RPED data in Zimbabwe, find no discrimination in formal financial markets as between different groups of entrepreneurs. Firm size is indicated to be a major determinant of access to credit. Tyler Biggs, Myank Raturi, and Pradeep Srivastava (2002), using the RPED data, also find that ethnicity does not affect access to formal sources of finance in Kenya.

Foreign connections are similarly influenced by firm size. It is really only larger enterprises that have significant foreign connections. However, the network characteristics remain significant. These include belonging to an informal trade credit network, parents in business, and the network effects of being born in the town where the business is located. Interestingly, the last variable has a negative sign, indicating that minority entrepreneurs are more likely to have businesses in the town in which they were born. Clearly, these minority entrepreneurs cannot be regarded as “foreigners.” Finally, in model 2, the negative coefficient on the firm size variable indicates that, even after controlling for the attributes of entrepreneurs, Africans are much more likely to run smaller firms than minority entrepreneurs.

**Impact of the Entrepreneur’s Endowments on the Start-Up of the Firm**

How do the differences in endowments across entrepreneurs shape the origin and nature of the firms they operate? One hypothesis is that entrepreneurs with lower endowments of human capital, assets, and professional relationships will be constrained to start up smaller businesses in lower skill areas of the market where entry is relatively easy. Firms that start up in this fashion might be expected to have more limited future prospects relative to other, larger enterprises. Initial conditions such as size at entry and ease of entry are often predictors of a firm’s future growth capacity and survival in the Sub-Saharan African business environment. Tyler Biggs, Vajaya Ramachandran, and Manju Shah (1999) find, for example, that only about 10 percent of microenterprises in Sub-Saharan Africa (those with fewer than 10 employees) ever grow up to a size where they employ more than 50 workers. (Even more pessimistic statistics are reported by Carl Liedholm and Donald Mead 1987.) Moreover, as we will show in subsequent sections of this study, size appears to be an important predictor of productivity.

To look at this issue more closely, we estimate an econometric model, which regresses firm size at start-up on various independent variables describing the attributes and endowments of the entrepreneur owners. All the variables included are defined as they were in the tables in the previous section. The results are reported in Table 8–13.
As model 1 indicates, Africans start significantly smaller firms than minority entrepreneurs. Entrepreneurs with apprenticeship training also start much smaller firms. This supports the speculative finding of the Sleuwaegen and Goedhuys (1998)
study in Cote d’Ivoire, reviewed earlier, which suggested that the pathway into entrepreneurship in manufacturing for many West Africans appeared to be by way of apprenticeship to formation of micro and small enterprises. It is also clear from the estimated results that entrepreneurs with business experience and higher education, entrepreneurs with technical and vocational training backgrounds, and entrepreneurs with larger endowments of collateralizable assets at start-up establish larger enterprises.

Estimating the model for the African and the minority cohorts separately provides some additional interesting results (see Table 8-13). Within the African cohort, entrepreneurs with higher endowments of education and technical training are observed to start significantly larger enterprises (all these variables are positive and highly significant). It is clear that education and technical training put an African entrepreneur in a significantly different league at start-up, which, in turn, puts his firm on an entirely different growth and survival trajectory, as we will establish in subsequent sections of this study. Ownership of land title and access to external finance at start-up are also significant in determining start-up size for Africans.

Within the minority cohort of entrepreneurs, the only variable of any significance is access to external finance. The lack of significance of education or other variables in the minority cohort model could have two possible explanations. One may be that a relatively large proportion of minority entrepreneurs have similar endowments of human capital and all establish relatively larger enterprises. A second explanation may be that the unmeasurable advantages of being a minority entrepreneur, such as being a member of an ethnic network with informal contract enforcement mechanisms and access to international technology transfer channels, are what matter for initial entry.

**THE PERFORMANCE OF ENTREPRENEURIAL FIRMS**

How do entrepreneurial firms perform in the Sub-Saharan African business environment compared with other firms? How do minority entrepreneurs perform compared to their African counterparts? To answer these questions, we examine two aspects of firm performance: firm efficiency and growth.

**Firm Efficiency**

The determinants of firm efficiency can be examined by using an augmented Cobb-Douglas production function of the following form:

\[
Y = AK^\alpha L^\beta X^\delta
\]

where \( Y \) represents value-added (measured as total sales minus raw materials), \( L \) the number of current employees in the firm, and \( K \) the replacement cost of capital employed. \( X \) is a vector of firm-specific (or entrepreneur-specific) exogenous variables hypothesized to influence the productivity of the enterprise, and \( \alpha, \beta, \) and \( \delta \) are the parameters to be estimated. The logarithm of \( Y \) describes the equation to be estimated:

\[
\log Y = \log A + \alpha \log K + \beta \log L + \delta \log X + \varepsilon
\]

where \( \delta_1, \ldots, \delta_n \) are the \( n \) parameters of the exogenous variables and \( \varepsilon \) is an error term. Estimates of \( \delta \) provide information on whether the exogenous variables \( X \) are correlated with value-added, holding labor and capital constant. However, several issues arise in interpreting the estimated coefficients. First, while all policy-induced
effects on firms' value added are assumed to be subsumed in $A$ in the equation above, it is quite possible that these effects have different impacts across firms. The coefficients of the variables $X$ will then be incorporating these differential effects, which cannot be disentangled without a greater level of disaggregation than is feasible in our sample. Second, omitted variables bias may be a problem if unmeasured determinants of value added (such as differences in entrepreneurial ability) are correlated with the variables included in $X$ (such as level of education achieved). Finally, the single equation formulation may lead to simultaneity bias in the estimated coefficients if any variables in $X$ are jointly determined with value added. Given the data available, there are no clear solutions to these problems, but structural interpretation of this reduced form relationship should be avoided.

The production function is estimated using ordinary least squares, corrected for heteroscedasticity in errors. We begin by estimating the production function for all the firms in the sample, both entrepreneurial and non-entrepreneurial. Efficiency differences across these groups are investigated by including a dummy variable, $entfirm$, which takes the value of one if the firm is entrepreneur-owned and zero otherwise. The production function is estimated with and without firm size as a controlling variable to isolate the pure efficiency effect of entrepreneurial firms (such as the possibility of better corporate governance, gap-filling, and innovativeness) from firm-size effects on efficiency noted above. We also add controls for country and industry effects. Table 8-14 reports the results.

A high proportion of total variance in value-added is explained by the regressions, and both labor and capital are highly significant. Capacity utilization, which is included to control for the effects of capital utilization rates on capital efficiency, is not significant. The intercept shifts for the food processing and metalworking sectors indicate that they have higher productivity than the wood and textile and garments sectors across the countries. When we do not control for firm size in the estimation of firm productivity, as in model 1 of the table, entrepreneurial firms significantly underperform other firms in the sample. But is this lower productivity due to the fact that entrepreneurial firms generally underperform other types of business firms, or is it that a large proportion of entrepreneurial firms are small and the negative relationship between size and efficiency weights down the results?

To find out, we add a firm-size variable to the model in the second column of Table 8-14. The results show that firm size has a major effect on productivity. Large firms perform much more efficiently compared with their smaller counterparts: microenterprises have 54 percent lower productivity than firms in the largest size class (> 100 employees). Small firms (10-49 employees) have 47 percent lower productivity, and medium-sized firms (50-99 employees), 16 percent lower productivity. Thus, when we control for firm size in the model, the inefficiency of the entrepreneurial firm cohort vanishes. The coefficient on the $entfirm$ variable continues to be negative, but it is no longer statistically significant.

One can conclude, therefore, that the entrepreneurial firm performs about as well as other types of business organization in the Sub-Saharan African environment, once we control for size. Of course, one cannot completely drop size from the discussion
of the entrepreneurial enterprise. Entrepreneurial firms are confronted everywhere by the limitations imposed on the division of labor and capital expansion by the owner's capacity to manage a larger organization. Many of these firms just cannot get much bigger. Hence, the important sources of efficiency that come from size in Sub-Saharan Africa (economies of scale, better access to finance, marketing capability, and so on) are often not open to entrepreneurial firms unless they can find a way to overcome management limitations.

Within the entrepreneurial firm cohort, how does the efficiency of minority-owned firms stack up against their African-owned counterparts? To examine this issue, we estimate regressions for the entrepreneurial firm cohort and include a dummy variable in the equation, African, which takes the value of one for African-owned firms and zero for others. The results are reported in Table 8-15.

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Model 1 All firms</th>
<th>Model 2 All firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.07* (0.28)</td>
<td>5.77* (0.49)</td>
</tr>
<tr>
<td>Log (capital)</td>
<td>0.21* (0.03)</td>
<td>0.21* (0.03)</td>
</tr>
<tr>
<td>Log (labor)</td>
<td>0.89* (0.05)</td>
<td>0.78* (0.08)</td>
</tr>
<tr>
<td>Capacity utilization</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
</tr>
<tr>
<td>Kenya</td>
<td>0.10 (0.13)</td>
<td>0.07 (0.12)</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.63* (0.13)</td>
<td>0.60* (0.13)</td>
</tr>
<tr>
<td>Zambia</td>
<td>0.37* (0.13)</td>
<td>0.35* (0.13)</td>
</tr>
<tr>
<td>Cameroon</td>
<td>1.54* (0.15)</td>
<td>1.54* (0.15)</td>
</tr>
<tr>
<td>Food</td>
<td>0.35* (0.12)</td>
<td>0.39* (0.12)</td>
</tr>
<tr>
<td>Wood</td>
<td>0.07 (0.11)</td>
<td>0.09 (0.12)</td>
</tr>
<tr>
<td>Metal</td>
<td>0.52* (0.12)</td>
<td>0.52* (0.12)</td>
</tr>
<tr>
<td>Entfirm</td>
<td>-0.22*** (0.11)</td>
<td>-0.18 (0.12)</td>
</tr>
<tr>
<td>Micro</td>
<td>n.a.</td>
<td>-0.54*** (0.32)</td>
</tr>
<tr>
<td>Small</td>
<td>n.a.</td>
<td>-0.47* (0.21)</td>
</tr>
<tr>
<td>Medium</td>
<td>n.a.</td>
<td>-0.16 (0.16)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.80</td>
<td>0.81</td>
</tr>
</tbody>
</table>

* Significant at the 99% confidence level; ** Significant at the 95% confidence level; *** Significant at the 90% confidence level.

Source: Author's calculations, based on RPED surveys, 1993-99.
<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Model 1 All entrepreneurial firms</th>
<th>Model 2 All entrepreneurial firms</th>
<th>Model 3 Minority only</th>
<th>Model 4 Africans only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.51*</td>
<td>5.51*</td>
<td>5.82*</td>
<td>5.26*</td>
</tr>
<tr>
<td></td>
<td>(0.42)</td>
<td>(0.45)</td>
<td>(0.73)</td>
<td>(0.53)</td>
</tr>
<tr>
<td>Log (capital)</td>
<td>0.16*</td>
<td>0.16*</td>
<td>0.13*</td>
<td>0.16*</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.06)</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Log (labor)</td>
<td>0.85*</td>
<td>0.81*</td>
<td>0.93*</td>
<td>0.61*</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.09)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Capacity utilization</td>
<td>0.26</td>
<td>0.27</td>
<td>0.32</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td>(0.16)</td>
<td>(0.23)</td>
<td>(0.25)</td>
</tr>
<tr>
<td>Log (firmage)</td>
<td>0.13***</td>
<td>0.13***</td>
<td>0.12</td>
<td>0.20***</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.10)</td>
<td>(0.11)</td>
</tr>
</tbody>
</table>

**HUMAN CAPITAL ENDOWMENTS**

Secondary: 0.03 0.03 0.12
(0.15) (0.22) (0.19)

University: −0.13 −0.09 −0.37
(0.18) (0.23) (0.32)

Technical education: 0.35* 0.58* 0.13
(0.14) (0.21) (0.20)

Apprentice: 0.32** 0.26 0.34***
(0.16) (0.25) (0.22)

**FINANCE ENDOWMENTS**

Asset: 0.03 −0.16 0.60**
(0.14) (0.16) (0.29)

Overdraft: 0.10 −0.04 0.09
(0.15) (0.18) (0.26)

**NETWORK ENDOWMENTS**

Trade credit: 0.27*** 0.16 0.39***
(0.16) (0.19) (0.24)

Born in this town: −0.05 −0.15 −0.17
(0.13) (0.16) (0.24)

Parent in business: −0.11 −0.04 −0.31
(0.14) (0.16) (0.27)

Foreign connection: 0.15 0.14 0.31
(0.14) (0.17) (0.27)

African: −0.40* −0.34**
(0.15) (0.16)

Kenya: 0.07 0.00 0.23 −0.22
(0.18) (0.17) (0.28) (0.24)

Zimbabwe: 0.53* 0.47* 0.69* 0.33
(0.19) (0.21) (0.33) (0.29)

Zambia: 0.30*** 0.41* 0.33 0.48**
(0.17) (0.17) (0.28) (0.24)

Food: 0.31*** 0.39* 0.32 0.54***
(0.17) (0.17) (0.21) (0.29)

Wood: −0.05 0.01 −0.15 0.21
(0.15) (0.15) (0.20) (0.23)

Metal: 0.37* 0.36** 0.35 0.49**
(0.17) (0.17) (0.24) (0.25)

Adjusted $R^2$: 0.72 0.74 0.66 0.56

N: 421 419 207 212

* Significant at the 99% confidence level; ** Significant at the 95% confidence level; *** Significant at the 90% confidence level.

Source: Author's calculations, based on RPED surveys, 1993-99.
In model 1, the production function is augmented with the African dummy variable. We see that its coefficient is significant and negative, indicating lower efficiency for African-owned entrepreneurial firms (40 percent lower) compared with minority-owned firms. What explains this lower efficiency?

In model 2, we begin to examine this issue by including variables to control for the entrepreneur’s endowments of education and finance. A plausible explanation for productivity differences across firms is that some are managed better than others. Good managers run high-efficiency firms in the sense that, for a given bundle of inputs and technology, they are able to produce higher value-added. A testable hypothesis is that management ability is, among other things, related to endowments of formal education. It might be hypothesized, for example, that higher education allows one to formulate better strategic plans, find, decode, and deploy information about new technologies more effectively, and develop more efficient organizational structures.

As our results show, this hypothesis is not supported by the data. Formal education of entrepreneurs, which matters significantly both for start-up size and, as we will see later on, for firm growth, is not significant here. It would appear that formal education is more important for the entrepreneur’s ability to deal with complexities of managing larger organizations than it is for coping with day-to-day problems of operational efficiency once we control for size. It should be noted, however, that the apprenticeship dummy, apprend, and the technical and vocational training dummy, teched, are positive and significant, indicating that more hands-on training of the entrepreneur—on-the-job and in technical training courses—does appear to help in making better day-to-day production decisions.

Under finance endowments, we include asset, which comprises collateralizable assets of the entrepreneur and access to overdraft facilities at banks. Insofar as access to supplier credit is largely determined by an entrepreneur’s membership in a business network, which has effective information and enforcement mechanisms, we list trade credit from suppliers under network endowments. Foreign connections, born, and parbus (defined above) are also included to capture the effects of being involved in a strong business network. It should be noted that including finance in the equation is controversial, as it is difficult to determine the direction of causation. (Is it access to finance that causes higher productivity or higher productivity that causes access to finance?) Our hypothesis here is that finance—specifically, working capital finance— influences the firm’s day-to-day production capabilities in credit-constrained situations, such as those found in most countries of Sub-Saharan Africa. There is empirical evidence to warrant such a hypothesis. Raymond Fisman (1998), using RPED data, has shown that African firms lacking credit are more likely to face inventory shortages, leading to lower rates of capacity utilization and lower productivity.

The results in model 2 indicate that finance—specifically, working capital—does matter in determining the productivity of entrepreneurial firms: firms that have access to trade credit perform significantly better than those that do not. Furthermore, after controlling for finance, the magnitude of the African coefficient falls from −0.40 to −0.34, a rise in productivity of 16 percent.
In models 3 and 4, the determinants of productivity are examined separately for minority and African entrepreneurs. It is found that education is still unimportant in determining productivity for both groups. The results also indicate that the apprenticeship dummy is significant and positive only for African entrepreneurs and the technical training dummy is significant and positive only for minority entrepreneurs. As African entrepreneurs are generally the ones involved in apprenticeship programs, it is not surprising that this variable is significant for the African cohort. For both cohorts, however, these results indicate that different types of technical and on-the-job training can be important for productivity improvement. Lastly, financial endowments do not explain differences in performance among minority entrepreneurs. However, for Africans, availability of collateralizable assets and access to working capital have a significantly positive effect in determining firm performance. Clearly, for African entrepreneurs, "finance matters."

Summing up, it has been shown that entrepreneurial firms exhibit the same productivity levels as other enterprises in Sub-Saharan Africa, once we control for firm size. African entrepreneurial firms, however, are found to have lower levels of efficiency than their minority counterparts. This lower productivity is explained largely by African entrepreneurs' lack of collateralizable assets and lack of membership in trade credit networks, which translate into lower access to finance, particularly working capital. While formal education of the entrepreneur is not a determinant of firm efficiency, entrepreneurs with technical and apprenticeship training do run higher productivity firms.

**Firm Growth**

Is the growth performance of entrepreneurial firms in Sub-Saharan Africa on a par with other firms in manufacturing? Is there a difference in the growth performance of African-owned entrepreneurial firms versus those run by their minority counterparts? What are the determinants of growth of entrepreneurial firms? And finally, are there any differences in the determinants of growth of African- versus minority-owned firms that might account for observed differences in relative performance? These are the major questions we address in this section.

Economic theories about firm growth and its determinants generally begin with an empirical hypothesis known as Gibrat's Law, or the Law of Proportionate Effect. This theory proposes that firm growth should be regarded as mostly a chance phenomenon resulting from the cumulative effects of the chance operation of a number of forces, each operating independently. Gibrat's Law states, therefore, that the probability of a firm's growing at a given proportionate rate during any specific period will be independent of its initial size.

Early tests of this stochastic model showed conflicting evidence of the size-growth relationship, suggesting that deterministic effects were also influencing firm growth processes (Mansfield, 1962). To explain this conflicting evidence, "learning" models were developed, where exogenous variables, such as the entrepreneur's capabilities, play a deterministic role in firm growth rates. In these models, efficient firms prosper and inefficient firms fail. Entrepreneurs learn about their efficiency over time.
(Jovanovic 1982). In extensions of the basic model with fixed entrepreneurial capabilities, human capital formation allows entrepreneurs to upgrade their capabilities over time. There is also a life cycle effect, in that new entrepreneurs work harder than those closer to retirement growth (Frank 1988; Pakes and Ericson 1989; Bates 1990). All these models imply that smaller, younger firms should have higher and more variable growth rates than larger, older firms. They also imply that firm growth and variance are independent of size for firms of the same age. Several researches have tested these learning models (Evans 1987a, 1987b; Brock and Evans 1986; Hall 1987) and found that growth and size are indeed negatively related, as are growth and age, confirming Jovanovic's original theoretical conjecture.

While these Gibrat-influenced models identify categories of variables relevant to the analysis of firm growth—the importance of exogenous, endogenous, and stochastic variables, for instance—they do not add a great deal to the economic explanation of firm growth rates. We will test the Gibrat model and its modern learning variant with our African data by including firm age and size as independent variables in the model. However, to answer the questions posed at the beginning of this section, we will have to build a richer framework for the analysis of growth and its determinants than the narrow perspective of Gibrat's law, and its variants, permits. Accordingly, we enhance the model by including the observed attributes of entrepreneurs and their firms discussed in this study to test the hypothesis that these variables play a role in determining the growth of entrepreneurial enterprises. The variables we include on the right-hand side measure human capital, collateralizable assets, network capabilities, and the extent of the market for each entrepreneurial firm. We will also include a variable controlling for the ethnicity of the entrepreneur to capture differential growth rates between African- and minority-owned firms.

Firm growth in our model is measured by change in employment from the firm's inception to the date of the survey. While the survey contains information on capital assets and sales, we think the employment data is more reliable than sales or replacement cost of capital as a measure of firm size. Specifically, growth is measured as the logarithmic function of change in employment:

(3) Growth rate = \[ \ln(L_t) - \ln(L_i)/A \]

The variables included in the econometric model to be tested may be described as follows:

- \( G \) = growth rate of employment = \[ \ln(L_t) - \ln(L_i)/A \]
- \( L_t \) = current employment (log)
- \( L_i \) = initial employment at start (log)
- \( A \) = age of the firm in years (log)
- \( S_i \) = start-up employment size of firm (log)
- \( X_1 \) = secondary education
- \( X_2 \) = university education
- \( X_3 \) = apprenticeship
- \( X_4 \) = technical/vocational training
\( X_5 \) = network variables. If the firm is in a trade credit network, father was in business, and the entrepreneur was born in the city where the business is located, then\( \text{network} = 1 \)
\( X_6 \) = collateralizable assets. At start, if the entrepreneur owns a car, house, and title to the factory land, then assets = 1
\( X_7 \) = foreign connections
\( X_8 \) to \( X_{10} \) = sector dummies
\( X_{11} \) to \( X_{13} \) = country dummies
\( X_{16} \) = previous experience of entrepreneur (log)
\( X_{17} \) = minority entrepreneur.

We expect size and age to be negatively related to growth, confirming the results of Jovanovic's learning model. All the human capital variables are expected to have positive signs, as more educated and experienced entrepreneurs are expected to be better managers, gap-fillers, and innovators and, as a consequence, more growth-oriented. Being a member of an extensive business network is expected to help the firm get access to necessary finance to better manage liquidity, to obtain better information about technologies (broadly defined) in use, and to better enforce business contracts. Higher net worth in the form of collateralizable assets is expected to have a positive impact on growth because it increases access to both short- and long-term formal bank credit in the difficult Sub-Saharan African financial environment. Better access to formal finance should allow the firm to better manage its inventories, execute its long-term investment plans, and manage day-to-day liquidity. More extensive foreign connections are expected to have a positive influence on growth by way of enhanced technology transfer and wider markets to sell products.

The first issue we take up with our model is the growth rate of entrepreneurial firms compared with other enterprises in Sub-Saharan Africa. Do entrepreneurial firms grow faster? It appears from the figures in Table 8-16 that the average annual growth rates of entrepreneurial firms are higher than those of other firms in almost all the countries. This is particularly true in the late 1980s and early 1990s, when most

<table>
<thead>
<tr>
<th>Growth measures</th>
<th>Cameroon</th>
<th>Cote d'Ivoire</th>
<th>Ghana</th>
<th>Kenya</th>
<th>Tanzania</th>
<th>Zambia</th>
<th>Zimbabwe</th>
<th>Mozambique</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTREPRENEURIAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth from start to end</td>
<td>3.2</td>
<td>1.2</td>
<td>19.1</td>
<td>8.2</td>
<td>10.7</td>
<td>10.2</td>
<td>15.0</td>
<td>4.7</td>
<td>9.5</td>
</tr>
<tr>
<td>Growth-structural adj.</td>
<td>-4.5</td>
<td>4.4</td>
<td>7.6</td>
<td>2.4</td>
<td>2.9</td>
<td>1.5</td>
<td>4.7</td>
<td>-1.1</td>
<td>2.5</td>
</tr>
<tr>
<td>NON-ENTREPRENEURIAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth from start to end</td>
<td>4.4</td>
<td>1.5</td>
<td>1.1</td>
<td>1.1</td>
<td>6.0</td>
<td>3.6</td>
<td>4.9</td>
<td>10.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Growth-structural adj.</td>
<td>-1.0</td>
<td>-1.1</td>
<td>1.5</td>
<td>4.7</td>
<td>-2.0</td>
<td>-0.1</td>
<td>1.7</td>
<td>-1.6</td>
<td>-0.0</td>
</tr>
</tbody>
</table>

Source: Author's calculations, based on RPE3 surveys, 1993-99.
of our sample countries began to adopt structural adjustment programs, which seem to have encouraged entry and growth of smaller, local entrepreneurs in manufacturing.

Turning to our econometric model, Table 8-17 reports the results of our estimates of the growth performance of entrepreneurial firms. Model 1 utilizes the total sample of firms and includes a dummy variable for entrepreneur-owned firms to examine interfirm differences in growth rates. It also controls for size and age, and includes dummies to capture sector and country differences. The results indicate that size and age are both statistically significant at the 1 percent level and their coefficients have the expected negative signs. This confirms that smaller and younger firms grow faster than other firms and that Jovanovic’s learning model is applicable, as elsewhere in the world.

| Table 8-17 Testing Gibrat’s Law: Entrepreneurial Firms versus Others |
|--------------------------|--------------------------|--------------------------|
| Explanatory variables    | Model 1                  | Model 2                  | Model 3                  |
|                         | Intercept                | Log (age)                | Log (empst)              |
|                         | 0.43* (0.03)             | -0.06* (0.005)           | -0.04* (0.003)           |
|                         | (0.35* 0.04)             | -0.05* (0.01)            | 0.03*** (0.005)          |
|                         | (0.03)                   | -0.05* (0.01)            | -0.04* (0.005)           |
| Entfirm dummy           | -0.05* (0.01)            | 0.06 (0.04)              | 0.10* (0.04)             |
|                         | -0.05* (0.01)            | 0.06 (0.04)              | 0.10* (0.04)             |
|                         | (0.05)                   | (0.04)                   | (0.05)                   |
|                         | (0.05)                   | (0.04)                   | (0.05)                   |
|                         | Food                     | Wood                     | Metal                    |
|                         | -0.04* (0.01)            | -0.05* (0.01)            | -0.02 (0.01)             |
|                         | (0.33* 0.02)             | (0.33* 0.02)             | (0.33* 0.02)             |
|                         | (0.06)                   | (0.06)                   | (0.06)                   |
|                         | (0.06)                   | (0.06)                   | (0.06)                   |
|                         | Cote d’Ivoire            | Cameroon                 | Zambia                   |
|                         | -0.04*** (0.02)          | -0.12* (0.02)            | -0.04*** (0.02)          |
|                         | (0.04*** 0.02)           | (0.12* 0.02)             | (0.04*** 0.02)           |
|                         | (0.04)                   | (0.04)                   | (0.04)                   |
|                         | (0.04)                   | (0.04)                   | (0.04)                   |
|                         | Ghana                    | Tanzania                 | Nigeria                  |
|                         | 0.01 (0.02)              | -0.06* (0.02)            | 0.01 (0.02)              |
|                         | 0.01 (0.02)              | -0.06* (0.02)            | 0.01 (0.02)              |
|                         | 0.003 (0.02)             | (0.06* 0.02)             | (0.06* 0.02)             |
|                         | (0.003)                  | (0.06)                   | (0.06)                   |
|                         | (0.003)                  | (0.06)                   | (0.06)                   |
|                         | Mozambique               | Adjusted R²              |                        |
|                         | -0.05* (0.02)            | 0.22 (0.02)              | 0.34                     |
|                         | -0.04*** (0.02)          | (0.04*** 0.02)           | (0.04*** 0.02)           |
|                         | (0.04)                   | (0.04*** 0.02)           | (0.04*** 0.02)           |
|                         | (0.04)                   | (0.04)                   | (0.04)                   |

* Significant at the 99% confidence level; ** Significant at the 95% confidence level; *** Significant at the 90% confidence level.

Source: Author’s calculations, based on RPED surveys, 1993–99.
We also find that, after controlling for size and age, the higher growth rates of entrepreneurial firms, shown in Table 8-16, disappear. It is clear that much of the performance advantage of entrepreneurial firms is attributable to their size and youthfulness. In fact, the sign on the entrepreneur dummy variable is negative and significant in model 1, suggesting that, when size and age are held constant, entrepreneurial firms grow at a slower pace than other enterprises.

The regression models in the second and third columns of Table 8-17 indicate, however, that this result is spurious. The negative sign is caused by the fact that the slopes or growth elasticities for entrepreneurial firms at a given size and age are higher than for other firms. This is confirmed by the negative and significant coefficients on the interaction terms (ageent) and (sizeent) in model 2, presented in the second column of the table. They indicate that, for two firms of equal size and age, the entrepreneur-owned one will grow at a faster rate. Controlling for these interaction terms results in a positive but insignificant entrepreneur dummy.

The finding that entrepreneurial firms grow at a faster rate than other enterprises of the same age and size indicates a positive "entrepreneurial effect"—or, one might call it, "Schumpeterian effect"—on growth. This effect can be interpreted as a growth return to the gap-filling and innovative efforts of entrepreneurs in the development process.

Of course, not all entrepreneurial firms produce the same "Schumpeterian effect." Some firms in our sample grow at a much slower pace than others or do not grow at all, weighting down mean growth rates for the cohort. As might be expected, not all of our entrepreneurial firms fit the mold of the "innovative," "gap-filling" entrepreneur lionized in theory.

Presupposing the microenterprise group of firms might represent this less dynamic element, remove these firms (with fewer than 10 employees) from our sample. The regression results of this model are reported in the third column of Table 8-17. They show, as expected, that when microenterprises are dropped, the entrepreneur dummy becomes highly significant and positive. Entrepreneurial firms with more than 10 employees appear to be the most dynamic element, producing the largest "Schumpeterian effect," as they grow faster than other enterprises by a significant margin.

Ethnicity and Growth

How important is ethnicity in influencing the growth of an entrepreneurial firm? Nathanial Leff (1979) argues that when entrepreneurial characteristics are included in the model, ethnic and religious factors have little influence on firm performance. Taking a contradictory position, Peter Kilby (1983) contends that ethnic minority entrepreneurs play a unique role in many economies around the world and have clear advantages over their local counterparts that help raise productivity and spur growth, including superior initial capital endowments, knowledge of markets and technology, and trust-based professional networks. These competing hypotheses about the relationship between ethnicity and growth can be tested using our growth model.

Model 1 in Table 8-18 estimates firm growth as a function of size, age, and ethnicity of the entrepreneur, controlling for sector and country differences. A dummy variable is included in the model, which takes the value of one for African entrepreneurs and
## Table 8-18 Determinants of Firm Growth

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minority entrepreneurs</td>
<td>African entrepreneurs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intercept</strong></td>
<td>0.56*</td>
<td>0.54*</td>
<td>0.51*</td>
<td>0.27</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.14)</td>
<td>(0.14)</td>
<td>(0.22)</td>
</tr>
<tr>
<td><strong>Lenott</strong></td>
<td>0.05*</td>
<td>0.06*</td>
<td>0.04*</td>
<td>0.09*</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
<td>(0.006)</td>
<td>(0.02)</td>
</tr>
<tr>
<td><strong>Lage</strong></td>
<td>0.10*</td>
<td>0.11*</td>
<td>0.08*</td>
<td>0.13*</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.02)</td>
</tr>
<tr>
<td><strong>African</strong></td>
<td>0.08*</td>
<td>0.06*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### HUMAN CAPITAL ENDOWMENTS

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secondary</strong></td>
<td>0.03</td>
<td>0.01</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td><strong>University</strong></td>
<td>0.03</td>
<td>-0.003</td>
<td>0.07***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td><strong>Technical education</strong></td>
<td>0.03</td>
<td>0.02</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td><strong>Apprentice</strong></td>
<td>0.01</td>
<td>-0.02</td>
<td>-0.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td><strong>Lentage</strong></td>
<td>0.01</td>
<td>-0.03</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.03)</td>
<td>(0.06)</td>
<td></td>
</tr>
</tbody>
</table>

### NETWORK ENDOWMENTS

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade credit</strong></td>
<td>0.05*</td>
<td>0.04**</td>
<td>0.06***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td></td>
</tr>
<tr>
<td><strong>Born in this town</strong></td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td><strong>Foreign connection</strong></td>
<td>0.06**</td>
<td>0.04*</td>
<td>0.03*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.01)</td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td><strong>Parents in business</strong></td>
<td>-0.01</td>
<td>-0.02</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.016)</td>
<td>(0.04)</td>
<td></td>
</tr>
</tbody>
</table>

### FINANCE ENDOWMENTS

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset</strong></td>
<td>0.04**</td>
<td>0.02</td>
<td>0.08**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.015)</td>
<td>(0.04)</td>
<td></td>
</tr>
<tr>
<td><strong>Food</strong></td>
<td>-0.04</td>
<td>0.04</td>
<td>-0.01</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.02)</td>
<td>(0.045)</td>
</tr>
<tr>
<td><strong>Wood</strong></td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Metal</strong></td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.04</td>
<td>-0.009</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Cote d’Ivoire</strong></td>
<td>-0.06**</td>
<td>-0.02</td>
<td>-0.03</td>
<td>-0.006</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.02)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Kenya</strong></td>
<td>-0.05***</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.09***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.02)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Zambia</strong></td>
<td>0.01</td>
<td>-0.02</td>
<td>0.01</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.02)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Zimbabwe</strong></td>
<td>-0.05</td>
<td>0.02</td>
<td>0.04</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.04)</td>
</tr>
<tr>
<td><strong>Adjusted R²</strong></td>
<td>0.25</td>
<td>0.28</td>
<td>0.33</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>600</td>
<td>265</td>
<td>335</td>
</tr>
</tbody>
</table>

* Significant at the 99% confidence level; ** Significant at the 95% confidence level; *** Significant at the 90% confidence level.

Source: Author's calculations, based on RPED surveys, 1993–99.
zero otherwise. The econometric results confirm the earlier findings that firm age and size are statistically significant and inversely correlated with firm growth. The dummy variable for ethnicity is negative and highly significant, indicating that African entrepreneurial firms grow at a significantly slower rate than minority entrepreneurial firms.

To test Leff’s hypothesis, several important attributes of the entrepreneur are included in model 2 to investigate whether the ethnicity variable remains significant after controlling for these additional variables. The estimates indicate that most of the entrepreneur attributes we have included are indeed statistically important. Moreover, after controlling for these characteristics of the entrepreneur, the ethnicity variable remains highly significant. Therefore, our findings do not support Leff’s hypothesis. The coefficient on the African dummy variable is, however, reduced by a substantial 25 percent. It would appear, as Kilby suggests, that there is a significant return to belonging to a minority group of entrepreneurs. Even when important attributes of the entrepreneur are held constant, minority entrepreneurs outperform their African counterparts in terms of growth. One interpretation of this minority growth differential is a return to the trust-based information and contract enforcement mechanisms that work within such ethnic groups, but not across them (see Biggs, Raturi, and Srivastava (2002) for a discussion of Asian entrepreneurs in Kenya).

Model 2 also estimates the determinants of growth for entrepreneurial firms in Sub-Saharan Africa, including the entrepreneur’s human capital, finance, and network endowments in the equation. Once financial and network variables are included, the human capital variables lose significance. Firms with larger endowments of collaterizable assets grow faster than others. Collaterizable assets capture the influence of differential access to finance on the growth process. This is especially true in Sub-Saharan Africa, where legal enforcement mechanisms are weak. As collateral reduces enforcement costs, banks prefer to lend to firms with collaterizable assets.

Foreign connections and exporting, captured by fgnconn, also have a positive effect on firm growth. Presumably, firms that export and import gain from additional technology transfer flows through their connections with world markets. They also have access to larger, international markets. Among the other network variables—parents in business, born in the town where the factory is located, and member of a trade credit network—the only one that has a positive and significant effect on firm growth is being a member of a trade credit network. As noted earlier, access to trade credit is crucial for managing day-to-day liquidity and inventories in the shock-prone Sub-Saharan African business environment, where the financial system is very thin.

To examine the determinants of growth within the two entrepreneur groups, we disaggregated the data and estimated a growth model for African and minority entrepreneurs separately. Table 8-18 presents the results in models 3 and 4. African entrepreneurs with university degrees run firms that grow significantly faster than others. Collaterizable assets are also an important determinant of growth, suggesting that liquidity constraints may be slowing the growth of other African entrepreneurs. The coefficient on the asset variable is 0.08 for Africans. This is four times larger than the same coefficient for minority entrepreneurs, and is highly significant. Being
8. The Problem of African Entrepreneurial Development

A member of a trade credit network is indicated to be a major driver of growth, too, suggesting again the importance of finance for African entrepreneurs. Lastly, African firms that have foreign connections grow significantly faster than other African enterprises.

In the case of minority-owned firms, the important drivers of growth are foreign connections and being a member of a trade credit network. Interestingly, education of the entrepreneur does not play a differential role in the minority cohort. The reason for this lack of significance is that a relatively large fraction of minority entrepreneurs have secondary and university degrees; hence there is not much variation in this variable across minority firms.

In summary, we find that smaller and younger firms grow faster than other firms in Sub-Saharan Africa. We also find, after controlling for firm size, that entrepreneurial firms grow faster than other firms, suggesting a positive "Schumpeterian effect" on growth. Microenterprises are the least dynamic group within the cohort of entrepreneurial enterprises. Minority-owned entrepreneurial firms grow faster than their African counterparts. We interpret this finding to relate to trust-based information and contract enforcement mechanisms, which work within such ethnic groups but not across them. As far as the determinants of growth are concerned, entrepreneurs with vocational and technical training, strong professional networks, and larger collateralizable assets manage faster-growing firms. Furthermore, firms that have foreign connections and export grow significantly faster.

When the data are disaggregated to examine the determinants of growth separately for African- and minority-owned firms, we find that African entrepreneurs with university education, significant collateralizable assets (suggesting greater access to formal credit), access to trade credit, and foreign connections grow faster than other African entrepreneurs. For minority entrepreneurs, the important drivers of faster growth are foreign connections and being a member of a trade credit network.

CONCLUSION

The opportunities available to entrepreneurs in Sub-Saharan Africa are shaped by the business environment and the structure of payoffs. But, as we have shown in this study, the endowments of entrepreneurs influence the types of opportunities they can exploit, as well as the productivity of their efforts. For policymakers, this is an important point because it underscores the fact that "getting prices right" is, as often stated, necessary but not sufficient for raising trend growth rates and reducing poverty. Attention must also be paid to the constraints entrepreneurs face in responding to the new structure of incentives. African entrepreneurs are much less likely to have had prior experience in the industry or higher education, or have strong business networks, foreign connections, or significant financial assets. As a consequence, in many cases, African entrepreneurs are constrained to enter manufacturing by way of informal apprenticeships and start-ups of micro and small enterprises. Their firms also tend to remain smaller and less productive, as these inferior endowments are found to hamper efficiency and growth compared with minority-owned entrepreneurial firms.

Over the long-term, to address this problem of African entrepreneurial development, increased efforts will be needed to raise educational levels, build business-friendly public
institutional structures, and deepen financial markets. But more immediate remedies should aim at increasing the availability of technical, vocational, and enterprise-based training, and increasing access to working capital; both are important determinants of enterprise efficiency and growth. Another remedy is improving access to technology transfer channels through efforts to increase interactions with foreign sources of information, such as buyers and suppliers, foreign technical experts, and direct foreign investors.

REFERENCES


8. The Problem of African Entrepreneurial Development 189

NOTES

* African entrepreneur here refers to all entrepreneurs operating in Sub-Saharan Africa. Later in this chapter, we examine the roles of different groups of entrepreneurs. African then refers to a particular ethnic group.

1 Entrepreneurial firms are defined here as family companies and those run by a single-owner-operator (or a few owner-operators).

2 For detailed historical reviews of the entrepreneur in economic theory, see Barreto (1989).

3 "Slack" in the sense that neither individuals nor firms work as hard or as effectively or search for new innovations or information as well as they can, nor is effort maintained at constant level. Persistent slack implies the existence of entrepreneurial opportunities.

4 As Michael Kremer (1993) has argued in "The O-Ring Theory of Economic Development," many production processes require input mixes where any variation in the optimal quality of inputs can be disastrous.

5 This question was not included in the Mozambiques and Nigeria surveys.

6 This question was not included in the Mozambiques and Nigerian surveys.

7 In the case of Nigeria, the question was asked differently; so we include the number for information only.

8 That is, the estimated results reject the hypothesis of zero correlation between entrepreneurship and the expected wage in wage-employment.

9 Middle Eastern entrepreneurs were also found in the surveys, but were too few in number to include in the analysis.

10 That is, the coefficient on the African dummy variable is large and has a negative sign and is highly significant.

11 It may also be that entrepreneurs with more education can get better access to finance and technology and can therefore start bigger firms.

12 Note that the total sample of firms includes firms from Ghana, Mozambique, and Nigeria that were not included in the other sections of this study.

13 Only surviving firms are used in the analysis. Our data do not allow us to take into account the problem of sample attrition. Bronwyn Hall (1987) points out that there are two possible biases arising from this problem. The first is that small firms that have slow or negative growth are more likely to disappear from the sample than are large firms, thereby causing sample selection bias. The second is that some of the most rapidly growing small firms may not be present at the beginning of the period, which results in a bias that runs in the opposite direction. Hall carefully controls for sample attrition and finds that it does not change her results. We acknowledge that we are unable to control for sample attrition, but are also aware that our results may not be biased in a particular direction.
Part III. The Business Environment
Tells Us about Constraints on Private Sector Development

GEETA BATRA, DANIEL KAUFMANN, AND ANDREW H. W. STONE*

What do active business managers view as their main obstacles to the operation and growth of their firms? What conditions are associated with a higher level of enterprise growth? Why do firms so frequently opt to function unofficially? What makes reforms so difficult, especially in countries with influential private firms? Is corruption less harmful to business operation when it is predictable?

Listening to what managers and entrepreneurs say about the obstacles they face, especially through structured surveys, has proven to be an effective way to evaluate the constraints a particular business environment imposes. This information is important not only for the firms themselves but for the growth of the larger economy and the progress of society. If private enterprises are a critical path out of poverty through employment or ownership, then establishing conditions for their growth must be a key component of a poverty-reduction strategy. The enabling conditions for enterprise growth and operation are often referred to as the business environment. The World Bank’s World Business Environment Survey (WBES) offers important insights as to what is needed to improve the business environment, based on what businesses themselves say about conditions they need to grow and the impediments they face.

WHAT IS THE WORLD BUSINESS ENVIRONMENT SURVEY?

The WBES represents a major effort by the World Bank Group and partner institutions to implement a standard core enterprise survey to evaluate business conditions in a large, cross-regional set of countries. The survey was administered on a roughly
parallel basis in 80 countries throughout the world, plus the West Bank and Gaza (for a list of countries, see Appendix A). It uses a uniform methodology and parallel parameters for sample structure. In general, at least 100 firms were surveyed in each country. The WBES sought to assess the state of the enabling environment—the conditions for private enterprise growth—focusing on local economic policy; governance; regulatory, infrastructure and financial barriers; and services to businesses. The survey represents an important step toward standardizing evaluations of the conditions for private investment in developing and transition countries around the world. It provides a basis to make regional comparisons of investment climate and business environment conditions. Furthermore, it permits comparisons of the severity of constraints affecting enterprise depending on their characteristics, such as size or ownership.

The results are particularly important in the context of economic globalization. Against a backdrop of growing competition and globalization, member countries are increasingly concerned about the conduciveness of the business environment to private investment and business development, and their relative standing in their region or globally. Unfortunately, there are very few indicators that allow objective measurement and comparison of the business environment, its binding constraints, and the quality and integrity of supportive and regulatory public services. Nor have there been adequate benchmarks of the relative change in the severity of constraints and the quality of business services over time. The WBES sought to fill that gap.

The WBES team sought to accomplish the following objectives:

- To provide feedback from enterprises on the state of the private sector.
- To measure the quality of governance and public services, including the extent of corruption.
- To provide better information on constraints to private sector growth, from the enterprise perspective.
- To sensitize governments to the importance of listening to firms and using this information to critically assess policies.
- To establish the basis for internationally comparable indicators that can track changes in the business environment over time, thus allowing an assessment of the impact of market-oriented reforms on private enterprises.
- To stimulate systematic public-private dialogue on business perceptions and the agenda for reform.

The surveys were carried out over a period of roughly one and a half years between the end of 1998 and the middle of 2000. Data were collected though personal interviews conducted at the managerial level in enterprises in most regions, with the exception of Africa, where surveys by mail predominated. Response rates were generally high, with the exception of responses to questions on bribery. By region, response rates were among the lowest in Africa. The analyses in this report are based on a sample of 10,032 enterprises that responded to the core questionnaire.
Table 9-1 presents the regional breakdown of firms by size and sector. Both small and medium enterprises, or SMEs, (those with 500 or fewer workers) and large firms (those with 501 or more employees) were sampled in the WBES. As shown in Table 9-1, SMEs comprised the clear majority of samples (80 percent), with almost equal proportion of small enterprises (50 or fewer employees) and medium enterprises (51-500 employees). Large firms accounted for about 20 percent of the sample. In terms of firm age, on average, the youngest average sample age of firms was for those in Central and Eastern Europe (9.5 years). The oldest was in OECD (34.1 years).

**WHAT DO ACTIVE MANAGERS VIEW AS THEIR MAIN OBSTACLES TO OPERATION AND GROWTH?**

The survey asked respondents to rate how problematic were a set of general constraints for the growth and operation of their firm. Table 9-2 presents the ranking of responses for the world, by regional groups, and by individual region to the following question: “Please judge on a four-point scale how problematic are the following factors for the operation and growth of your firm.” Four constraints stand out (based on a simple average for the overall world sample): taxes and regulations, financing, policy uncertainty/instability, and inflation. Indeed, if we focus on a simple average for the overall world sample, the following constraints stand out: taxes and regulations, financing, policy uncertainty/instability, and inflation.

Yet such worldwide average results mask crucial differences across regions, and particularly between industrialized and developing countries. For OECD, newly industrialized East Asian countries, and transition economies, the leading obstacles identified by the firms are indeed taxes and regulations, financing, policy instability, and inflation. However, for developing regions as a group (Africa; Latin America and the Caribbean, or LAC; Middle East/North Africa, or MENA; South Asia; and East Asia) the leading constraint is corruption, followed by inflation, financing, policy instability, and infrastructure. Indeed, in four developing regions, South Asia, Africa, developing East Asia, and MENA, corruption figures as one of the three leading constraints.

Other important regional differences emerge as we examine individual regions. For example, in Developing East Asia, street crime imposes the leading constraint, whereas in Africa, infrastructure problems are identified as one of the top three constraints. In Central and Eastern Europe (CEE), inflation ties with taxes and regulations as the leading constraints. The large variance across regions (and countries) in the severity assigned by responding firms to the various constraints points to the importance of assessing the results by region and country, rather than relying on worldwide averages. For Africa and East Asia, taxes and regulations are notably absent from the leading constraints. Surprisingly, in Transition Europe (CIS and CEE), although corruption is quite prevalent in the region and an important problem for about half the firms, it is not among the top four constraints.

Tax and regulatory constraints were also rated individually in a separate question. Among these constraints, “high taxes” led in every region. Since taxes are generally
### Table 9-1: Distribution of WBES Sample by Region, Size, and Sector (percent of firms)

<table>
<thead>
<tr>
<th>Region</th>
<th>Services/commerce</th>
<th>Commerce</th>
<th>Agriculture</th>
<th>Construction</th>
<th>Other</th>
<th>Total firms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AFRICA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>16.7%</td>
<td>28.9%</td>
<td>5.7%</td>
<td>24.2%</td>
<td>24.4%</td>
<td>508</td>
</tr>
<tr>
<td>Medium</td>
<td>30.1%</td>
<td>26.8%</td>
<td>8.0%</td>
<td>16.3%</td>
<td>18.8%</td>
<td>485</td>
</tr>
<tr>
<td>Large</td>
<td>36.6%</td>
<td>25.4%</td>
<td>8.7%</td>
<td>14.0%</td>
<td>15.4%</td>
<td>358</td>
</tr>
<tr>
<td>Total</td>
<td>26.8%</td>
<td>27.2%</td>
<td>7.3%</td>
<td>18.7%</td>
<td>20.0%</td>
<td>1,351</td>
</tr>
<tr>
<td><strong>MENA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>60.0%</td>
<td>20.0%</td>
<td>0.0%</td>
<td>8.9%</td>
<td>11.1%</td>
<td>45</td>
</tr>
<tr>
<td>Medium</td>
<td>31.6%</td>
<td>35.5%</td>
<td>6.6%</td>
<td>7.9%</td>
<td>18.4%</td>
<td>76</td>
</tr>
<tr>
<td>Large</td>
<td>31.0%</td>
<td>41.4%</td>
<td>8.6%</td>
<td>8.6%</td>
<td>10.3%</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>38.5%</td>
<td>33.5%</td>
<td>5.6%</td>
<td>8.4%</td>
<td>14.0%</td>
<td>179</td>
</tr>
<tr>
<td><strong>EAST ASIA NIC/CHINA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>43.21%</td>
<td>39.51%</td>
<td>4.94%</td>
<td>11.11%</td>
<td>1.23%</td>
<td>134</td>
</tr>
<tr>
<td>Medium</td>
<td>64.12%</td>
<td>20.00%</td>
<td>1.76%</td>
<td>12.35%</td>
<td>1.76%</td>
<td>89</td>
</tr>
<tr>
<td>Large</td>
<td>82.57%</td>
<td>9.17%</td>
<td>1.83%</td>
<td>6.42%</td>
<td>0.0%</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>65%</td>
<td>21.11%</td>
<td>2.5%</td>
<td>10.28%</td>
<td>1.11%</td>
<td>301</td>
</tr>
<tr>
<td><strong>EAST ASIA DEV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>36.4%</td>
<td>54.5%</td>
<td>3.5%</td>
<td>5.6%</td>
<td>0.0%</td>
<td>536</td>
</tr>
<tr>
<td>Medium</td>
<td>48.7%</td>
<td>45.5%</td>
<td>1.1%</td>
<td>4.7%</td>
<td>0.0%</td>
<td>279</td>
</tr>
<tr>
<td>Large</td>
<td>68.8%</td>
<td>28.1%</td>
<td>3.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>44.4%</td>
<td>48.3%</td>
<td>2.8%</td>
<td>4.6%</td>
<td>0.0%</td>
<td>943</td>
</tr>
<tr>
<td><strong>SOUTH ASIA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>50.0%</td>
<td>40.6%</td>
<td>0.9%</td>
<td>8.5%</td>
<td>0.0%</td>
<td>106</td>
</tr>
<tr>
<td>Medium</td>
<td>63.4%</td>
<td>22.6%</td>
<td>2.7%</td>
<td>11.3%</td>
<td>0.0%</td>
<td>186</td>
</tr>
<tr>
<td>Large</td>
<td>79.2%</td>
<td>12.3%</td>
<td>1.9%</td>
<td>6.6%</td>
<td>0.0%</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td>64.1%</td>
<td>24.6%</td>
<td>2.0%</td>
<td>9.3%</td>
<td>0.0%</td>
<td>398</td>
</tr>
<tr>
<td><strong>LATIN AMERICA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>36.4%</td>
<td>53.6%</td>
<td>2.0%</td>
<td>8.1%</td>
<td>0.0%</td>
<td>459</td>
</tr>
<tr>
<td>Medium</td>
<td>45.1%</td>
<td>47.1%</td>
<td>1.5%</td>
<td>6.3%</td>
<td>0.0%</td>
<td>669</td>
</tr>
<tr>
<td>Large</td>
<td>53.4%</td>
<td>38.5%</td>
<td>3.5%</td>
<td>4.6%</td>
<td>0.0%</td>
<td>481</td>
</tr>
<tr>
<td>Total</td>
<td>45.1%</td>
<td>46.4%</td>
<td>2.2%</td>
<td>6.3%</td>
<td>0.0%</td>
<td>1,609</td>
</tr>
<tr>
<td><strong>OECD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>21.7%</td>
<td>64.5%</td>
<td>1.3%</td>
<td>12.6%</td>
<td>0.0%</td>
<td>318</td>
</tr>
<tr>
<td>Medium</td>
<td>30.3%</td>
<td>60.2%</td>
<td>1.0%</td>
<td>8.2%</td>
<td>0.3%</td>
<td>389</td>
</tr>
<tr>
<td>Large</td>
<td>33.5%</td>
<td>63.5%</td>
<td>0.6%</td>
<td>2.4%</td>
<td>0.0%</td>
<td>167</td>
</tr>
<tr>
<td>Total</td>
<td>27.8%</td>
<td>62.4%</td>
<td>1.0%</td>
<td>8.7%</td>
<td>0.1%</td>
<td>874</td>
</tr>
<tr>
<td><strong>CIS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>20.9%</td>
<td>63.5%</td>
<td>4.4%</td>
<td>8.2%</td>
<td>3.1%</td>
<td>903</td>
</tr>
<tr>
<td>Medium</td>
<td>49.3%</td>
<td>34.7%</td>
<td>5.7%</td>
<td>6.6%</td>
<td>3.7%</td>
<td>683</td>
</tr>
<tr>
<td>Large</td>
<td>60.3%</td>
<td>27.0%</td>
<td>6.3%</td>
<td>5.2%</td>
<td>1.1%</td>
<td>174</td>
</tr>
<tr>
<td>Total</td>
<td>35.8%</td>
<td>48.7%</td>
<td>5.1%</td>
<td>7.3%</td>
<td>3.1%</td>
<td>1,760</td>
</tr>
<tr>
<td><strong>CEE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>21.9%</td>
<td>60.6%</td>
<td>7.2%</td>
<td>9.9%</td>
<td>0.4%</td>
<td>718</td>
</tr>
<tr>
<td>Medium</td>
<td>29.2%</td>
<td>27.7%</td>
<td>30.2%</td>
<td>12.9%</td>
<td>0.1%</td>
<td>902</td>
</tr>
<tr>
<td>Large</td>
<td>54.3%</td>
<td>12.4%</td>
<td>28.7%</td>
<td>4.7%</td>
<td>0.0%</td>
<td>129</td>
</tr>
<tr>
<td>Total</td>
<td>28.0%</td>
<td>40.1%</td>
<td>20.6%</td>
<td>11.0%</td>
<td>0.2%</td>
<td>1,749</td>
</tr>
</tbody>
</table>

Note: Table omits firms that could not be classified by main activity and size due to missing information.
Table 9-2 Leading Constraints

<table>
<thead>
<tr>
<th>World</th>
<th>Leading constraint</th>
<th>Second constraint</th>
<th>Third constraint</th>
<th>Fourth constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD &amp; Newly Industrialized East Asia (including China)</td>
<td>Taxes and regulations</td>
<td>Financing</td>
<td>Policy instability</td>
<td>Inflation</td>
</tr>
<tr>
<td>Transition Europe Developing countries (Africa, MENA, East Asia Developing, South Asia, Latin America)</td>
<td>Taxes and regulations</td>
<td>Corruption</td>
<td>Inflation</td>
<td>Policy instability/infrastructure (tie)</td>
</tr>
<tr>
<td>Africa</td>
<td>Financing</td>
<td>Corruption</td>
<td>Infrastructure</td>
<td>Inflation</td>
</tr>
<tr>
<td>MENA</td>
<td>Policy instability</td>
<td>Corruption</td>
<td>Inflation</td>
<td>Exchange rate</td>
</tr>
<tr>
<td>East Asia NIC/China</td>
<td>Financing</td>
<td>Corruption</td>
<td>Anti-competitive practices</td>
<td>Policy instability</td>
</tr>
<tr>
<td>East Asia Developing</td>
<td>Street crime</td>
<td>Corruption</td>
<td>Inflation/exchange rate/organized crime (tie)</td>
<td></td>
</tr>
<tr>
<td>South Asia</td>
<td>Corruption/policy instability (tie)</td>
<td>Inflation</td>
<td>Infrastructure</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>Taxes and regulations/ inflation (tie)</td>
<td>Policy instability</td>
<td>Street crime</td>
<td>Financing</td>
</tr>
<tr>
<td>OECD</td>
<td>Taxes and regulations</td>
<td>Financing</td>
<td>Policy instability</td>
<td>Inflation</td>
</tr>
<tr>
<td>CIS</td>
<td>Taxes and regulations</td>
<td>Financing</td>
<td>Policy instability</td>
<td>Inflation</td>
</tr>
<tr>
<td>CEE</td>
<td>Taxes and regulations/ inflation (tie)</td>
<td>Financing</td>
<td>Policy instability</td>
<td></td>
</tr>
</tbody>
</table>

a significant cost of doing business, it is not surprising that most businesses internationally regard them as too high. "Tax regulations and administration" led the remaining list of regulatory constraints. Customs and trade regulation were identified as the next leading regulatory constraint in Latin America, Africa, Developing East Asia, and MENA; while in OECD, South Asia, and Newly Industrialized East Asia, labor regulations rank next. In Central and Eastern Europe alone, business registration imposes the leading constraint after taxes. It is noteworthy that the great majority of firms in Newly Industrialized East Asia did not identify high taxes as a serious constraint, and were predominantly not seriously constrained by any category of regulation.

Finance

The second leading general constraint for the global sample is financing (Table 9-3). Firms in Central and Eastern Europe are most likely to identify it as seriously constraining, followed by those in CIS countries, and then those in Africa, South Asia, and Latin America. Globally, while financing is identified as the second-leading constraint by small and medium enterprises, it ranks as fourth for large enterprises.

Sources of finance vary markedly by region (Table 9-4). While internal funds (retained earnings) provide the leading source of financing across regions, in South Asia and Latin America, domestic commercial banks provide 20 percent of investment finance, and in developing East Asia and OECD, around 15 percent.
### Table 9-3  Financing Constraints (percent of firms rating constraint "major" or "moderate")

<table>
<thead>
<tr>
<th>Financing constraints</th>
<th>Africa</th>
<th>MENA</th>
<th>East Africa</th>
<th>NIC/China</th>
<th>East Asia</th>
<th>South Asia</th>
<th>Latin America</th>
<th>OECD</th>
<th>CIS</th>
<th>CEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High interest rates</td>
<td>83.5</td>
<td>67.4</td>
<td>40.3</td>
<td>72.5</td>
<td>83.9</td>
<td>87.6</td>
<td>47.8</td>
<td>80.6</td>
<td>79.5</td>
<td></td>
</tr>
<tr>
<td>Lack access to long-term loan</td>
<td>n.a.</td>
<td>n.a.</td>
<td>31.2</td>
<td>52.0</td>
<td>65.1</td>
<td>63.1</td>
<td>20.0</td>
<td>58.7</td>
<td>67.0</td>
<td></td>
</tr>
<tr>
<td>Collateral requirements</td>
<td>519</td>
<td>45.2</td>
<td>30.1</td>
<td>43.6</td>
<td>58.5</td>
<td>65.1</td>
<td>35.7</td>
<td>49.7</td>
<td>52.2</td>
<td></td>
</tr>
<tr>
<td>Bank paperwork</td>
<td>47.1</td>
<td>51.6</td>
<td>29.9</td>
<td>34.6</td>
<td>56.6</td>
<td>63.0</td>
<td>38.9</td>
<td>52.9</td>
<td>48.3</td>
<td></td>
</tr>
<tr>
<td>Inadequate credit info on clients</td>
<td>51.7</td>
<td>46.3</td>
<td>27.0</td>
<td>48.4</td>
<td>46.7</td>
<td>46.1</td>
<td>23.5</td>
<td>40.1</td>
<td>41.6</td>
<td></td>
</tr>
<tr>
<td>Special connections</td>
<td>38.2</td>
<td>33.3</td>
<td>26.3</td>
<td>39.6</td>
<td>44.5</td>
<td>46.5</td>
<td>26.5</td>
<td>35.1</td>
<td>43.1</td>
<td></td>
</tr>
<tr>
<td>Banks lack money to lend</td>
<td>28.4</td>
<td>33.0</td>
<td>20.6</td>
<td>52.2</td>
<td>35.1</td>
<td>39.1</td>
<td>14.3</td>
<td>37.4</td>
<td>46.8</td>
<td></td>
</tr>
<tr>
<td>Access to specialized export finance</td>
<td>44.9</td>
<td>39.8</td>
<td>15.1</td>
<td>33.7</td>
<td>36.4</td>
<td>34.7</td>
<td>16.5</td>
<td>35.5</td>
<td>38.8</td>
<td></td>
</tr>
<tr>
<td>Access to non-bank equity</td>
<td>43.1</td>
<td>36.2</td>
<td>13.0</td>
<td>32.6</td>
<td>34.9</td>
<td>35.6</td>
<td>18.1</td>
<td>38.3</td>
<td>42.0</td>
<td></td>
</tr>
<tr>
<td>Access to lease finance</td>
<td>38.2</td>
<td>29.3</td>
<td>13.1</td>
<td>34.9</td>
<td>32.9</td>
<td>34.1</td>
<td>19.3</td>
<td>32.7</td>
<td>48.9</td>
<td></td>
</tr>
<tr>
<td>Access to foreign banks</td>
<td>43.6</td>
<td>29.3</td>
<td>11.7</td>
<td>41.5</td>
<td>33.9</td>
<td>35.0</td>
<td>11.1</td>
<td>35.3</td>
<td>40.4</td>
<td></td>
</tr>
<tr>
<td>Corruption of bank officials</td>
<td>23.5</td>
<td>27.4</td>
<td>19.0</td>
<td>45.1</td>
<td>28.9</td>
<td>18.6</td>
<td>5.7</td>
<td>24.3</td>
<td>29.3</td>
<td></td>
</tr>
</tbody>
</table>

### Table 9-4  Sources of Finance (percent of total by region)

<table>
<thead>
<tr>
<th></th>
<th>East Asia</th>
<th>East Asia</th>
<th>South Asia</th>
<th>Latin America</th>
<th>OECD</th>
<th>CIS</th>
<th>CEE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NIC/China</td>
<td>Dev</td>
<td>Asia</td>
<td>America</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal funds/retained earnings</td>
<td>48.3</td>
<td>33.9</td>
<td>26.5</td>
<td>43.2</td>
<td>39.1</td>
<td>53.9</td>
<td>70.5</td>
</tr>
<tr>
<td>Local commercial banks</td>
<td>11.6</td>
<td>15.7</td>
<td>18.5</td>
<td>19.8</td>
<td>14.6</td>
<td>11.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Family/friends</td>
<td>3.3</td>
<td>9.9</td>
<td>6.3</td>
<td>4.3</td>
<td>2.3</td>
<td>8.6</td>
<td>7.3</td>
</tr>
<tr>
<td>Supplier credit</td>
<td>7.9</td>
<td>3.2</td>
<td>2.5</td>
<td>10.2</td>
<td>4.8</td>
<td>4.6</td>
<td>5.8</td>
</tr>
<tr>
<td>Equity, sale of stock</td>
<td>5.8</td>
<td>2.7</td>
<td>6.4</td>
<td>3.2</td>
<td>8.5</td>
<td>8.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Other state sources</td>
<td>0.6</td>
<td>0.4</td>
<td>0.8</td>
<td>0.9</td>
<td>2.0</td>
<td>4.6</td>
<td>7.4</td>
</tr>
<tr>
<td>Foreign banks</td>
<td>3.3</td>
<td>4.8</td>
<td>2.6</td>
<td>4.0</td>
<td>1.5</td>
<td>2.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Leasing arrangement</td>
<td>2.1</td>
<td>0.7</td>
<td>1.3</td>
<td>1.3</td>
<td>3.3</td>
<td>3.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Other</td>
<td>1.1</td>
<td>1.8</td>
<td>5.5</td>
<td>2.9</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Investment funds/special development finance</td>
<td>2.6</td>
<td>1.2</td>
<td>4.4</td>
<td>2.2</td>
<td>2.3</td>
<td>1.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Money lenders</td>
<td>2.9</td>
<td>1.7</td>
<td>1.1</td>
<td>1.1</td>
<td>2.3</td>
<td>2.5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

In Africa, internal funds (retained earnings) appeared as the most common source of finance, followed by "own capital or equity." Because of different measurement methods, data for Africa cannot be compared to those for other regions.

### Policy Uncertainty and Instability

Firms' views of this constraint vary widely by region (Figure 9-1). At one extreme, more than 70 percent of firms in South Asia, Central and Eastern Europe, and
Developing East Asia report policy instability as seriously constraining, with firms in Latin America, MENA, and CIS close behind. By contrast, only 26 percent of firms in East Asia NIC and China identified this constraint as “major” or “moderate, and also only 37 percent of firms in OECD countries did so.

Firms differ by region in the particular dimension of policy instability that troubles them. Over 70 percent of firms in CEE, over 60 percent of firms in CIS countries and Developing East Asia, and about half of firms in LAC find economic and financial policies unpredictable. In CEE and Africa, nearly three quarters of firms rated changes in rules, laws, and regulations affecting them as being unpredictable, while two-thirds of firms did so in CIS. With regard to advance notification of changes in laws and policies affecting them, 68 percent of firms in CEE, 60 percent of CIS firms, and 57 percent Latin American firms responding reported that they were “seldom” or “never” notified in advance of changes affecting them. Finally, there is a question of whether government considers businesses’ views in the formulation of legal and policy changes. In Transition Europe, MENA, and Latin America, the majority of firms suggest that this is relatively rare.

Corruption and Governance

Corruption is identified as a serious constraint by over 70 percent of firms in South Asia and nearly as many in Developing East Asia and MENA (Table 9-5). Sixty-four percent of firms in Africa, almost 60 percent of those in Latin America, and about half in the CIS and Central and Eastern Europe report it is a serious impediment. This contrasts with the much lower share (about 20 percent) of firms in East Asia NIC/China and in OECD countries that rate it as a “major” or “moderate” obstacle. Further, in many of the developing countries, the majority of firms reported that it
Table 9-5  Indicators of Corruption by Region (percent of firms that responded “always,” “mostly,” or “frequently,” as opposed to “sometimes,” “seldom,” or “never”)

<table>
<thead>
<tr>
<th>Region</th>
<th>Irregular additional payments made to government officials “to get things done”</th>
<th>Advance knowledge of amount of additional payment made</th>
<th>Service delivered as agreed if additional payment made</th>
<th>If payment made to one official, another official will request payment for same service</th>
<th>If government official acts against rules, can go to superior and get correct treatment without recourse to unofficial payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Asia</td>
<td>65</td>
<td>50</td>
<td>83</td>
<td>46</td>
<td>32</td>
</tr>
<tr>
<td>East Asia</td>
<td>62</td>
<td>60</td>
<td>76</td>
<td>60</td>
<td>26</td>
</tr>
<tr>
<td>Developing Africa</td>
<td>52</td>
<td>not asked</td>
<td>33</td>
<td>not asked</td>
<td>not asked</td>
</tr>
<tr>
<td>MENA</td>
<td>36</td>
<td>not asked</td>
<td>53</td>
<td>not asked</td>
<td>not asked</td>
</tr>
<tr>
<td>CEE</td>
<td>33</td>
<td>48</td>
<td>73</td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td>CIS</td>
<td>29</td>
<td>46</td>
<td>75</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td>Latin America</td>
<td>28</td>
<td>70</td>
<td>32</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>OECD</td>
<td>12</td>
<td>26</td>
<td>62</td>
<td>17</td>
<td>45</td>
</tr>
<tr>
<td>East Asia NIC/China</td>
<td>11</td>
<td>22</td>
<td>42</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>53</td>
<td>59</td>
<td>45</td>
<td>45</td>
</tr>
</tbody>
</table>

was common “in their line of business to have to pay some irregular ‘additional payments’ to get things done.” The data on firms’ reported percentage of total revenue paid every year in bribes clearly and positively correlate with the data on the degree to which firms find corruption constraining. An important manifestation of weak governance is the extent to which registered firms operate unofficially. Related to this is the degree to which firms comply with tax laws. While there are variations from region to region, about half the firms in the global sample indicated that they report no more than 80 percent of their revenues.

Quality of Public Services

About two-thirds of firms in Central Europe, Latin America, and the CIS countries, and nearly 60 percent in South Asia, report that the government is inefficient in delivering services (Table 9-6). The evaluation varies according to types of public services and institutions. On average, the majority of firms give a negative evaluation for public health, parliament, and public works/roads, while over 40 percent negatively evaluate the courts, police, education services, and central government leadership. By contrast, the most positive ratings go to the postal, telephone, and electric power services.

Firm Characteristics

The rich details of the WBES dataset permits an investigation of how a variety of firm characteristics, such as size and type of ownership, affect their experience and perceptions of constraints. For example, the data allow an investigation of whether the implicit “tax” imposed by inappropriate government policies and regulations is evenly
Table 9-6  Government Efficiency
(percent of firms that rate a 4, 5, or 6 [inefficient])

<table>
<thead>
<tr>
<th>Efficiency of govt. service provision</th>
<th>% Firms that rate 4, 5, 6 (inefficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE</td>
<td>70%</td>
</tr>
<tr>
<td>Latin America</td>
<td>63%</td>
</tr>
<tr>
<td>CIS</td>
<td>63%</td>
</tr>
<tr>
<td>South Asia</td>
<td>58%</td>
</tr>
<tr>
<td>OECD</td>
<td>50%</td>
</tr>
<tr>
<td>East Asia Dev</td>
<td>40%</td>
</tr>
<tr>
<td>East Asia NIC/China</td>
<td>16%</td>
</tr>
</tbody>
</table>

or unevenly distributed across different types of firms within a country. To do so, the authors analyzed the influence of firm characteristics on their response to key potential obstacles to business operation and growth, using a multivariate regression approach to control for country effects.

The econometric review (see Table 9-7) suggests that firms that are private, smaller, newer, devoid of foreign direct investment (FDI), and cater to the domestic market generally tend to face more acute business constraints than firms that are older, larger, exporting, have FDI, and/or are state-owned enterprises (SOEs). There are some notable exceptions regarding some business constraints, however. Older firms report being more constrained by political instability than younger firms, and exporters are hit harder by inflation than non-exporters, for instance.

A detailed reading of the data suggests the complex interaction of firm characteristics with business environment conditions. For example, corruption is seen as more constraining by smaller and younger firms, but also by those with government or public ownership and those that export. An inadequate exchange rate regime appears to be felt more by medium-sized firms, younger firms and those with some state ownership.

In terms of firm size, globally on average, small and medium firms report being more constrained than large firms along most dimensions. Within SMEs, small firms are generally more constrained than medium-sized firms. This may be either because the objective conditions of relatively larger firms are better or because they can better cope with constraints.

However, an exploration of the full results also gives rise to the notion of the forgotten middle. In facing some obstacles to doing business, medium-sized firms identify themselves as equally or even more constrained than do small firms (Table 9-7 and Figure 9-2). In particular, medium-sized firms show no statistical difference from small firms in their rating of several general constraints and are significantly more likely to be seriously constrained by tax administration and infrastructure. With regard to infrastructure, large firms show a statistical higher degree of constraint than medium and small firms. These results suggest that policy interventions that unduly focus on micro- and/or small enterprises may overlook important constraints to medium-sized
### Table 9-7: Effect of Firm Characteristics on Obstacle Severity: Results of Least Square Estimate

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Small firm</th>
<th>Medium-size firm</th>
<th>Firms with foreign ownership</th>
<th>Firms with government control</th>
<th>Firms that export</th>
<th>Located in large city</th>
<th>Located in small city</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0.222*</td>
<td>0.159*</td>
<td>-0.329**</td>
<td>0.105*</td>
<td>0.065*</td>
<td>0.021</td>
<td>0.055</td>
<td>9211</td>
</tr>
<tr>
<td>(0.033)</td>
<td>(0.031)</td>
<td>(0.030)</td>
<td>(0.036)</td>
<td>(0.025)</td>
<td>(0.029)</td>
<td>(0.029)</td>
<td>(0.034)</td>
<td></td>
</tr>
<tr>
<td>Taxes and regulations</td>
<td>0.071*</td>
<td>0.080*</td>
<td>-0.091*</td>
<td>-0.169*</td>
<td>0.065</td>
<td>0.002</td>
<td>0.018</td>
<td>9384</td>
</tr>
<tr>
<td>(0.028)</td>
<td>(0.026)</td>
<td>(0.025)</td>
<td>(0.029)</td>
<td>(0.021)</td>
<td>(0.025)</td>
<td>(0.028)</td>
<td>(0.030)</td>
<td></td>
</tr>
<tr>
<td>Inflation</td>
<td>0.173*</td>
<td>0.096*</td>
<td>-0.084*</td>
<td>-0.076*</td>
<td>-0.053**</td>
<td>-0.032</td>
<td>0.011</td>
<td>9111</td>
</tr>
<tr>
<td>(0.030)</td>
<td>(0.027)</td>
<td>(0.027)</td>
<td>(0.032)</td>
<td>(0.022)</td>
<td>(0.027)</td>
<td>(0.030)</td>
<td>(0.036)</td>
<td></td>
</tr>
<tr>
<td>Exchange rate</td>
<td>0.089*</td>
<td>0.031</td>
<td>0.058**</td>
<td>-0.108*</td>
<td>0.116*</td>
<td>0.021</td>
<td>0.089*</td>
<td>8990</td>
</tr>
<tr>
<td>(0.033)</td>
<td>(0.030)</td>
<td>(0.026)</td>
<td>(0.036)</td>
<td>(0.028)</td>
<td>(0.028)</td>
<td>(0.034)</td>
<td>(0.034)</td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td>0.205*</td>
<td>0.112*</td>
<td>-0.054</td>
<td>-0.165*</td>
<td>0.003</td>
<td>0.016</td>
<td>0.029</td>
<td>8359</td>
</tr>
<tr>
<td>(0.034)</td>
<td>(0.031)</td>
<td>(0.031)</td>
<td>(0.037)</td>
<td>(0.025)</td>
<td>(0.031)</td>
<td>(0.036)</td>
<td>(0.036)</td>
<td></td>
</tr>
<tr>
<td>Tax administration</td>
<td>0.053</td>
<td>0.063**</td>
<td>-0.057**</td>
<td>-0.175*</td>
<td>0.012</td>
<td>0.011</td>
<td>0.071**</td>
<td>9479</td>
</tr>
<tr>
<td>(0.032)</td>
<td>(0.029)</td>
<td>(0.028)</td>
<td>(0.034)</td>
<td>(0.023)</td>
<td>(0.028)</td>
<td>(0.032)</td>
<td>(0.032)</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>-0.082</td>
<td>-0.022</td>
<td>0.007</td>
<td>-0.128*</td>
<td>-0.018</td>
<td>0.019</td>
<td>0.047</td>
<td>9119</td>
</tr>
<tr>
<td>(0.032)</td>
<td>(0.029)</td>
<td>(0.028)</td>
<td>(0.033)</td>
<td>(0.023)</td>
<td>(0.028)</td>
<td>(0.032)</td>
<td>(0.032)</td>
<td></td>
</tr>
<tr>
<td>Policy instability</td>
<td>0.041</td>
<td>0.035</td>
<td>-0.018</td>
<td>-0.113*</td>
<td>0.012</td>
<td>-0.033</td>
<td>0.004</td>
<td>9016</td>
</tr>
<tr>
<td>(0.032)</td>
<td>(0.029)</td>
<td>(0.029)</td>
<td>(0.034)</td>
<td>(0.023)</td>
<td>(0.028)</td>
<td>(0.032)</td>
<td>(0.032)</td>
<td></td>
</tr>
<tr>
<td>High taxes</td>
<td>0.074*</td>
<td>0.085*</td>
<td>-0.093*</td>
<td>-0.238*</td>
<td>-0.014</td>
<td>0.012</td>
<td>0.026</td>
<td>9695</td>
</tr>
<tr>
<td>(0.027)</td>
<td>(0.029)</td>
<td>(0.026)</td>
<td>(0.031)</td>
<td>(0.021)</td>
<td>(0.028)</td>
<td>(0.029)</td>
<td>(0.029)</td>
<td></td>
</tr>
<tr>
<td>Street crime</td>
<td>0.188*</td>
<td>0.074*</td>
<td>-0.077*</td>
<td>-0.109*</td>
<td>-0.077**</td>
<td>-0.003</td>
<td>-0.016</td>
<td>8801</td>
</tr>
<tr>
<td>(0.033)</td>
<td>(0.030)</td>
<td>(0.029)</td>
<td>(0.035)</td>
<td>(0.024)</td>
<td>(0.029)</td>
<td>(0.034)</td>
<td>(0.034)</td>
<td></td>
</tr>
<tr>
<td>Bribes as % of sales</td>
<td>0.254*</td>
<td>0.159*</td>
<td>-0.077</td>
<td>-0.257*</td>
<td>-0.073</td>
<td>0.014</td>
<td>0.055</td>
<td>5354</td>
</tr>
<tr>
<td>(0.059)</td>
<td>(0.058)</td>
<td>(0.050)</td>
<td>(0.072)</td>
<td>(0.042)</td>
<td>(0.048)</td>
<td>(0.050)</td>
<td>(0.050)</td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 1% level; **Significant at 5% level; ***Significant at 10% level.

Note: All dependent variables are constraints measured on a scale of 1–4 with 4 = major obstacle and 1 = no obstacle. Foreign ownership, export orientation, government control are represented by indicator variables with a value of 1 for presence and 0 otherwise. Firm size and location are represented by indicator variables. Large firm size is the omitted category for size: firms in the capital city constitute the omitted category for location. Country dummies have been included in regressions but not reported here.

*Coefficient for small firms is statistically significantly different (higher) than coefficient for small firms using F-test in multiple regression (a test for the statistical significance of the observed differences among the means).

**Coefficient for medium firms is statistically significantly different (higher) from coefficient for small firms using F-test in multiple regression.

***Coefficient for large firms is statistically significantly different (higher) from coefficient for medium and small firms using F-test in multiple regression.

---

**Figure 9-2.** Tax and Regulatory Constraint by Firm Size (WBES 2000).
enterprises or all private enterprises. To focus only on small firms would ignore the plight of mid-sized firms. In fact, the complexity characterizing the way in which different obstacles appear to affect different types of enterprises reinforces the rationale for focusing on across-the-board reduction of obstacles to businesses, rather than the (often unproductive) earmarking of targeted policies according to firms' characteristics, such as size.

WHAT CONDITIONS ARE ASSOCIATED WITH A HIGHER LEVEL OF ENTERPRISE GROWTH?

The WBES results suggest that firms' evaluation of the severity of the leading constraints is highly related to firm-level outcomes. An empirical analysis of sales growth at the firm level explored whether and how constraints in the business environment, as perceived by enterprises, are associated with lower sales growth. This analysis has important ramifications for policy makers since, where enterprise growth is correlated with the constraints to business, policies that remove these constraints could lead to growth.

To explore whether and how constraints in the business environment, as perceived by enterprises, are associated with sales and investment growth, we estimate two regression models that include the constraint rankings for key environment variables. We control for firm attributes such as firm size, export and foreign ownership status, and country differences. In the first equation, the dependent variable is the sales growth over a three-year period (for example, 1996–98 or 1997–99) reported by firms in the survey. This variable is regressed on key business environment attributes such as corruption, policy instability, taxes and regulations, and financing constraints; and on firm level attributes, including firm size, age, export status, and foreign ownership. Firm attributes are all represented by indicator variables. The main attributes of the business environment such as financing, corruption, policy changes, and taxes are qualitative perceptions in the survey. To better quantify some of these variables, they were all converted to binary indicator variables (0, 1).

Corruption is measured as the frequency of additional payments made by enterprises on a scale of 0–1, with 0 representing the three least frequent responses (never, rarely, sometimes) and 1 representing the three most frequent responses (always, usually, frequently). Similarly, government consultation of businesses on legal and policy reform is represented by a binary variable representing low frequency: a value of 1 indicates a response that such consultation "never" or "rarely" occurs. A negative coefficient would imply that more frequent consultation is associated with higher growth. High taxes and financing constraints are measured on a scale of 0–1, with 0 indicating a response of "no obstacle" or "minor obstacle," and 1 indicating a response of "moderate obstacle" or "major obstacle." A negative sign on the coefficient of any of these constraint variables, as measured, would reflect the negative relationship between these constraints and growth. Since the variables representing the perceptions of the environment are significantly correlated with each other, stepwise regression methods were employed to determine the most important constraints correlated with growth. Firm size, age, export, and foreign ownership status of firms
Table 9-8  Firm Sales Growth and Constraints to Enterprise Growth (dependent variable, sales growth previous three years)

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Estimate (standard error)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUSINESS CONSTRAINTS</strong></td>
<td></td>
</tr>
<tr>
<td>Financing</td>
<td>-4.63*</td>
</tr>
<tr>
<td></td>
<td>(1.64)</td>
</tr>
<tr>
<td>High taxes</td>
<td>-2.04*</td>
</tr>
<tr>
<td></td>
<td>(0.83)</td>
</tr>
<tr>
<td>Consultation of businesses</td>
<td>-1.61*</td>
</tr>
<tr>
<td></td>
<td>(0.63)</td>
</tr>
<tr>
<td>Corruption</td>
<td>-3.95**</td>
</tr>
<tr>
<td></td>
<td>(1.61)</td>
</tr>
<tr>
<td><strong>FIRM CHARACTERISTICS</strong></td>
<td></td>
</tr>
<tr>
<td>Medium-size firm</td>
<td>2.10</td>
</tr>
<tr>
<td></td>
<td>(1.24)</td>
</tr>
<tr>
<td>Large firm</td>
<td>4.57**</td>
</tr>
<tr>
<td></td>
<td>(1.96)</td>
</tr>
<tr>
<td>De novo (since 1994)</td>
<td>-8.34*</td>
</tr>
<tr>
<td></td>
<td>(1.1)</td>
</tr>
<tr>
<td>Exporter</td>
<td>19.64*</td>
</tr>
<tr>
<td></td>
<td>(2.02)</td>
</tr>
<tr>
<td>Foreign investment</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>14.822</td>
</tr>
<tr>
<td></td>
<td>(11.24)</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.12</td>
</tr>
<tr>
<td>Number of observations</td>
<td>4560</td>
</tr>
</tbody>
</table>

**Significant at 1%; *Significant at 5%.
Country indicators were included in the above regression.
Estimates are available from authors on request.

are represented by indicator variables. Finally, indicator variables were included to represent country effects. The reference country in the table is Albania.\(^{15}\) Table 9-8 reports the estimated regression parameters.

First, firm attributes, including firm size and the export status of firms, are positively and significantly associated with higher sales growth, while age of the firm is negatively associated with growth. This finding is consistent with the literature.\(^{16}\) Second, and more importantly, the results indicate that several business constraints are significantly associated with sales growth (after controlling for country differences and variations in firm attributes—including age, size, export, and foreign ownership status).\(^{17}\) Financing, high taxes, and corruption (which are, on average, moderate to major constraints to businesses) are significantly and negatively associated with sales growth. Lack of or infrequent consultation of businesses on policies that affect them also bears a negative relationship with growth.

In the second specification, the dependent variable is change in investment over a three-year period (again, typically 1996–99) reported by firms in the survey. As in the earlier model, this variable is regressed on key business environment attributes such
as corruption, policy instability, taxes and regulations, and financing constraints, as well as firm level attributes including firm size, age, export status, and foreign ownership. As before, constraints are represented by indicator variables (0,1), where 0 represents “no obstacle or minor obstacle” and 1 represents “moderate or major obstacle.” The results of the regression are reported in Table 9-9. Policy uncertainty in this regression is measured by changes in predictability of government policies, laws, and regulations over the last three years, where a 1 indicates no change or a decline in predictability and a 0 indicates an improvement in predictability.

First, analyzing the firm attributes, it is clear that younger firms and firms that export have higher investment growth than older firms and non-exporters, on average. Among the business environment attributes, a decline in predictability of changes in economic policies over the last three years, corruption, high taxes, and financing are significantly and negatively associated with investment growth.

Taken together, the implications of these findings are important. At the most basic level, they suggest that several of the constraints firms rated as most important are significantly related to the actual performance of firms. Second, they imply that, other
things equal, in countries with poor conditions in four categories—financing, corruption, high taxes, and business consultation—existing businesses' sales grow an average of more than 10 percentage points less than those with positive ratings in all these categories. Countries with poor conditions in the areas of financing, high taxes, corruption, and policy predictability saw their businesses' investment levels grow an average of more than 10 percentage points less than those with positive ratings in all these categories. These results are strongly suggestive of the magnitude of benefits obtainable with substantial improvements in policy. While it may be difficult and take years to reform taxes, financing, corruption, and policy predictability, the evidence suggests that higher growth and investment are associated with such improvements.

WHY DO FIRMS SO FREQUENTLY OPT TO FUNCTION UNOFFICIALY?

The WBES results make clear that there is a spectrum of formality from the wholly official to the mostly unofficial (although all WBES firms are officially registered). A large share of officially registered firms hide output and turn unofficial in many countries. The worldwide enterprises data set permits us to test the extent to which firms are hiding output, and the importance of the various potential business environment conditions associated with their decision to do so. It is worth noting that all the firms in our sample are officially registered. We asked each firm to provide an estimate of the percentage of sales revenues that firms like their own report. Based on their responses, we infer that the firms in the sample do not report 19 percent of their gross revenues.

One can hypothesize that the decision of a firm to hide its output may be related to the low benefits it derives from operating officially, and the low cost of crossing over to the unofficial economy. In this formulation, the firm makes a rational economic choice as to whether (or how much) to operate officially or unofficially based on the incentive it faces. These incentives are determined by the government's provision of (or failure to provide) public goods (such as rule of law). Within such a framework, the analysis uses the WBES microeconomic data set to identify the main determinants of the unofficial economy.

To do so, we performed OLS regressions with this firm-level sample, including country effects. The basic econometric specifications in Table 9-10 present various possible determinants of the unofficial economy behavior of registered firms. A number of policy-related variables are shown to be significantly related to the firm's extent of underreporting of revenues. On the economic and financial policy side, macroeconomic, regulatory, and tax constraints are significant, other things equal. Where these policies are more constraining, a firm will tend to operate unofficially. Further, governance-related constraints are important. In particular, corruption and problems in some legal variables related to property rights protection—such as copyright violations—are rather significant in determining the propensity of a firm to operate unofficially.

The econometric investigation at the firm level also allows investigation of whether enterprise characteristics matter as well (controlling for policy and governance variables). As seen in Table 9-10, small or medium firms that produce for the
## Table 9-10 Underreported Revenues, Corruption, and Protection of Property Rights (using full sample)

<table>
<thead>
<tr>
<th>Determinants</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSINESS CONSTRAINTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financing constraint</td>
<td>0.27</td>
<td>0.11</td>
<td>0.46</td>
<td>0.44</td>
<td>0.27</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>0.85</td>
<td>0.33</td>
<td>1.44</td>
<td>1.32</td>
<td>0.79</td>
<td>0.25</td>
</tr>
<tr>
<td>Inflation constraint</td>
<td>-0.01</td>
<td>-0.03</td>
<td>0.07</td>
<td>0.01</td>
<td>-0.05</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>-0.03</td>
<td>-0.12</td>
<td>0.31</td>
<td>0.04</td>
<td>-0.23</td>
<td>-0.37</td>
</tr>
<tr>
<td>Policy instability constraint</td>
<td>0.60</td>
<td>0.77</td>
<td>0.77</td>
<td>0.81</td>
<td>0.65</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>2.64***</td>
<td>3.24***</td>
<td>3.45***</td>
<td>3.57***</td>
<td>2.78***</td>
<td>3.30***</td>
</tr>
<tr>
<td>Infrastructure constraint</td>
<td>0.58</td>
<td>0.37</td>
<td>0.75</td>
<td>0.88</td>
<td>0.73</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>1.65***</td>
<td>0.98</td>
<td>2.15***</td>
<td>2.44***</td>
<td>2.00***</td>
<td>1.29</td>
</tr>
<tr>
<td>Tax/regulatory constraint</td>
<td>1.37</td>
<td>1.26</td>
<td>3.38***</td>
<td>2.97***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RULE OF LAW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bribery (% of revenues)</td>
<td>0.29</td>
<td>0.33</td>
<td>0.31</td>
<td>0.34</td>
<td>0.33</td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>5.47***</td>
<td>5.53***</td>
<td>5.70***</td>
<td>6.17***</td>
<td>5.91***</td>
<td>5.97***</td>
</tr>
<tr>
<td>Copyright violations</td>
<td>2.31</td>
<td>2.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.3***</td>
<td>7.1***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FILM CHARACTERISTICS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private ownership</td>
<td>0.24</td>
<td>-0.52</td>
<td>0.23</td>
<td>0.25</td>
<td>0.24</td>
<td>-0.55</td>
</tr>
<tr>
<td></td>
<td>0.20</td>
<td>-0.39</td>
<td>0.19</td>
<td>0.21</td>
<td>0.20</td>
<td>-0.41</td>
</tr>
<tr>
<td>Small firm*</td>
<td>4.35</td>
<td>4.28</td>
<td>4.40</td>
<td>4.50</td>
<td>4.47</td>
<td>4.54</td>
</tr>
<tr>
<td></td>
<td>4.43***</td>
<td>4.07***</td>
<td>4.48***</td>
<td>4.35***</td>
<td>4.35***</td>
<td>4.13***</td>
</tr>
<tr>
<td>Medium-size firm*</td>
<td>0.93</td>
<td>1.18</td>
<td>0.97</td>
<td>0.84</td>
<td>0.78</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>1.05</td>
<td>1.23</td>
<td>1.09</td>
<td>0.91</td>
<td>0.85</td>
<td>1.09</td>
</tr>
<tr>
<td>Relatively new (since 1994)</td>
<td>-0.14</td>
<td>-0.02</td>
<td>-0.13</td>
<td>-0.05</td>
<td>-0.07</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>-0.28</td>
<td>-0.05</td>
<td>-0.26</td>
<td>-0.10</td>
<td>-0.13</td>
<td>0.18</td>
</tr>
<tr>
<td>Exporter</td>
<td>-0.46</td>
<td>-1.02</td>
<td>-0.54</td>
<td>-1.01</td>
<td>-0.90</td>
<td>-1.16</td>
</tr>
<tr>
<td></td>
<td>-0.65</td>
<td>-1.33</td>
<td>-0.76</td>
<td>-1.32</td>
<td>-1.19</td>
<td>-1.41</td>
</tr>
<tr>
<td></td>
<td>-4.28***</td>
<td>-3.67***</td>
<td>-4.35***</td>
<td>-4.06***</td>
<td>-3.97***</td>
<td>-3.35***</td>
</tr>
<tr>
<td>Location, small city**</td>
<td>-0.18</td>
<td>-0.13</td>
<td>-0.17</td>
<td>-0.09</td>
<td>-0.11</td>
<td>-0.07</td>
</tr>
<tr>
<td></td>
<td>-0.18</td>
<td>-0.12</td>
<td>-0.18</td>
<td>-0.08</td>
<td>-0.11</td>
<td>-0.07</td>
</tr>
<tr>
<td>Location, large city**</td>
<td>1.62</td>
<td>1.41</td>
<td>1.61</td>
<td>1.87</td>
<td>1.87</td>
<td>1.72</td>
</tr>
<tr>
<td></td>
<td>1.87*</td>
<td>1.51*</td>
<td>1.87*</td>
<td>2.11***</td>
<td>2.11***</td>
<td>1.79*</td>
</tr>
<tr>
<td>Manufacturing***</td>
<td>1.72</td>
<td>1.56</td>
<td>2.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.84</td>
<td>0.77</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service***</td>
<td>-0.10</td>
<td>-0.04</td>
<td>1.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.04</td>
<td>-0.02</td>
<td>0.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture***</td>
<td>-0.52</td>
<td>-0.57</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.26</td>
<td>-0.28</td>
<td>0.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction***</td>
<td>1.98</td>
<td>1.87</td>
<td>2.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.91</td>
<td>0.86</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.22</td>
<td>0.23</td>
<td>0.21</td>
<td>0.22</td>
<td>0.22</td>
<td>0.23</td>
</tr>
<tr>
<td>Number of observations</td>
<td>4775</td>
<td>4166</td>
<td>4781</td>
<td>4386</td>
<td>4381</td>
<td>3802</td>
</tr>
</tbody>
</table>

***Significant at 1% level; **Significant at 5% level; *Significant at 10% level. Bold denotes significance.

Note: From the survey, business constraints were rated on a scale from 1 to 4, where 1 implies "no constraint" and 4 "major obstacle." These include inflation, financing, infrastructure, tax/regulation, and policy instability constraints, as well as quality of courts, protection of property rights, copyright violations, and constraints to exercise "voice" of the firm. Bribery is expressed as percentage of revenues. Fixed country effects were used for all countries, except for Latvia (benchmark) to account for differences across individual countries. World averages were used for some variables in those countries that were entirely missing observations for that specific variable, in order to maximize the efficiency of estimators without affecting their lack of bias. All firm characteristics are defined as a binary choice.

*Large firms constitute the benchmark; **Location in capital constitutes the benchmark; ***Other sectors constitute the benchmark.

Source: Kaufmann, Mastruzzi, and Zavaleta 2002.
domestic market (non-exporters), lack foreign investment, and are located in large cities (but not necessarily in the capital) tend to engage more in unofficial activity.  

WHAT MAKES REFORMS SO DIFFICULT, ESPECIALLY IN COUNTRIES WITH INFLUENTIAL PRIVATE FIRMS?

In a number of countries, some influential firms are business environment "makers," and thus form and shape policies, laws, and regulations favorable to their private interests, sometimes through illicit means. Traditional measures of corruption derive from enterprise survey questions focus on the implementation of laws and regulations and illuminate, in particular, the extent of administrative bribery. However, the transition economy version of the WBES (the Business Environment and Enterprise Performance, or "BEEPS" survey) went further; it assessed the extent to which countries may have experienced good or poor governance in the formation and shaping of the policies, laws, and regulations.  

This research suggests the existence of a significant extent of state capture by the corrupt interests of the enterprise elite in about half the countries in transition (particularly in the CIS, but also in CEE). In those countries, the policies, laws, and regulations of the state are reported to have been shaped to a large extent by some firms that have made corrupt payments. The impact of such state capture on the business and investment climate is very large. Analysis indicates that firms in countries that avoided state capture grow much faster and invest significantly more than those subject to state capture. Equally important, firms that are "captors" appear, in capture economies, to benefit dramatically from their insider status (Figure 9-3). This suggests that liberalizing reforms, which may remove rents and protections, may be resisted not only by public officials but also by powerful private elites.

---

**Figure 9-3.** Effect of "State Capture" on Enterprise Growth.
This finding has a fundamental policy implication. If, indeed, some firms are not only mere investment climate “takers” but investment climate “makers,” conventional advice to government officials as to what rules and regulations to reform will continue to have limited impact in those settings subject to state capture by vested interests. Thus, the WBES/BEEPS indicators of capture provide a new tool in assessing whether preconditions for successful reform efforts prevail.

**IS CORRUPTION LESS HARMFUL TO BUSINESS OPERATION WHEN IT IS PREDICTABLE?**

The prevalence of corruption matters enormously in the firm’s behavior and performance, yet analysis of WBES data suggests that the unpredictability of bribery or corruption does not matter significantly, controlling for the corruption level. This helps to resolve a source of debate in development literature. While, in general, the literature treating corruption presents it as a negative factor in development, some authors claim it is the unpredictability of its costs, rather than the existence or level of corruption, that discourages development. Predictability of corruption is characterized by the bribe payer and receiver both knowing “what it takes” in terms of the nature and amount of payment required, and the degree of certainty that the privately purchased “service” from the official will actually be delivered. The premise is that in settings where corruption is predictable, corruption would have fewer harmful effects: it is, quite literally, business as usual. However, in settings where the degree of unpredictability of corruption is much higher, the effects of corruption would be much more harmful.

The WBES firm-level dataset permits an empirical evaluation of the “unpredictability of corruption” hypothesis. The authors tested it using three separate variables derived from responses to the WBES. One indicated uncertainty about the price of corrupt services; one indicated uncertainty about whether other officials may subsequently request additional bribe payments; and one indicated uncertainty about whether bribes result in the actual delivery of purchased services. As reported in Table 9-11, we find that, controlling for other factors, there is no significant relationship between the degree of unpredictability of corruption, on the one hand, and the

<table>
<thead>
<tr>
<th>Table 9-11 Underreported Revenues versus Unpredictability of Corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinants</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td><strong>BUSINESS CONSTRAINTS</strong></td>
</tr>
<tr>
<td>Financing constraint</td>
</tr>
<tr>
<td>Inflation constraint</td>
</tr>
<tr>
<td>Policy instability constraint</td>
</tr>
<tr>
<td>Infrastructure constraint</td>
</tr>
<tr>
<td><strong>Tax/regulatory constraint</strong></td>
</tr>
<tr>
<td>0.89</td>
</tr>
<tr>
<td>2.67**</td>
</tr>
<tr>
<td>1.30</td>
</tr>
<tr>
<td>2.44***</td>
</tr>
</tbody>
</table>
Table 9-11 (continued)

<table>
<thead>
<tr>
<th>Determinants</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNPREDICTABILITY OF CORRUPTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bribery (% of revenues)</td>
<td>0.28</td>
<td>0.29</td>
<td>0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of bribing</td>
<td>4.68***</td>
<td>4.97***</td>
<td>4.32***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrupt service</td>
<td>0.36</td>
<td>0.23</td>
<td>0.19</td>
<td>0.09</td>
<td>0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>Frequency of bribing</td>
<td>2.16</td>
<td>1.84</td>
<td>2.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrupt payment</td>
<td>0.01</td>
<td>0.01</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrupt extra request</td>
<td>0.03</td>
<td>0.10</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrupt unpredictability</td>
<td>0.10</td>
<td>0.03</td>
<td>0.37</td>
<td>0.10</td>
<td>0.06</td>
<td>0.20</td>
</tr>
<tr>
<td>Government inefficiency</td>
<td>1.30</td>
<td>1.39</td>
<td>1.55</td>
<td>1.28***</td>
<td>3.59***</td>
<td>3.01***</td>
</tr>
<tr>
<td><strong>FIRM CHARACTERISTICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private ownership</td>
<td>-0.44</td>
<td>-0.32</td>
<td>-0.11</td>
<td>0.05</td>
<td>-0.97</td>
<td>-0.44</td>
</tr>
<tr>
<td>Small firm</td>
<td>4.42</td>
<td>4.94</td>
<td>5.23</td>
<td>5.50</td>
<td>4.60</td>
<td>4.73</td>
</tr>
<tr>
<td>Medium-size firm</td>
<td>0.84</td>
<td>0.97</td>
<td>2.01</td>
<td>2.26</td>
<td>1.18</td>
<td>0.59</td>
</tr>
<tr>
<td>Relatively new (since 1994)</td>
<td>-0.23</td>
<td>0.73</td>
<td>0.98</td>
<td>1.34***</td>
<td>1.84*</td>
<td>1.06</td>
</tr>
<tr>
<td>Exporter</td>
<td>-0.89</td>
<td>-1.60+</td>
<td>-1.57+</td>
<td>-1.29</td>
<td>-0.61</td>
<td>-1.49+</td>
</tr>
<tr>
<td>Location, small city</td>
<td>-0.13</td>
<td>0.18</td>
<td>-0.17</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Location, large city</td>
<td>1.42</td>
<td>2.18</td>
<td>1.38</td>
<td>1.24</td>
<td>1.29</td>
<td>1.53</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1.81</td>
<td>1.94</td>
<td>1.97</td>
<td>1.74</td>
<td>1.82</td>
<td>2.04</td>
</tr>
<tr>
<td>Service</td>
<td>0.85</td>
<td>0.93</td>
<td>0.69</td>
<td>0.62</td>
<td>0.83</td>
<td>0.75</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-0.64</td>
<td>-0.04</td>
<td>-0.63</td>
<td>0.18</td>
<td>0.50</td>
<td>0.66</td>
</tr>
<tr>
<td>Construction</td>
<td>1.39</td>
<td>1.70</td>
<td>1.62</td>
<td>1.63</td>
<td>1.73</td>
<td>1.73</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.19</td>
<td>0.19</td>
<td>0.19</td>
<td>0.18</td>
<td>0.17</td>
<td>0.20</td>
</tr>
<tr>
<td>Number of observations</td>
<td>3262</td>
<td>3902</td>
<td>2926</td>
<td>3347</td>
<td>3369</td>
<td>4223</td>
</tr>
</tbody>
</table>

***Significant at 1% level; **Significant at 5% level; *Significant at 10% level; †Significant at 15% level.

Note: From the survey business constraints were rated on a scale from 1 to 4, where 1 implies no constraint and 4 implies a major obstacle. These include inflation, financing, infrastructure, tax/regulation, policy instability constraints, as well as quality of courts, protection of property rights, copyright violations and constraints to exercise “voice” of the firm. Bribery is expressed as percentage of revenues. Although not reported in table, fixed country effects were used to account for differences across individual countries. World averages were used for some variables in those countries that were entirely missing observations for that specific variable, in order to maximize the efficiency of estimators without affecting their lack of bias. Finally, all firm characteristics are defined as a binary choice.

Large firms constitute the benchmark; °Location in capital constitutes the benchmark; †Other sectors constitute the benchmark.

Source: Kaufmann, Mastruzzi, and Zavaleta 2002.
degree of underreporting of revenues by the firm, on the other. By contrast, the magnitude and significance of the level of corruption variables (proxied by the amounts of bribes paid or by the frequency of bribery) remain very high. These results occur irrespective of which (and if any) of the three “unpredictability of corruption” components is used in our econometric specifications.

**IMPLICATIONS**

The results of the World Business Environment Survey show that important dimensions of the climate for business operation and investment can be measured, analyzed, and compared across countries, and that important aspects of governance are centrally related to the business environment and investment climate. The results clearly demonstrate how the experience of enterprises varies by location and by firm characteristic, and the analysis reveals how those differences relate to firm-level outcomes such as growth and the extent of unofficialdom. A careful interpretation of these differences can help shape different policy priorities for national policy. Further, the survey findings suggest that key policy, institutional, and governance indicators are connected to important outcomes, including the growth of a firm’s sales (as well as the growth of investment and the extent to which firms operate in the unofficial or informal economy). The results also point to the value of monitoring such indicators over time, because progress in these indicators should yield real improvements in enterprise performance.

In particular, the WBES provides empirical confirmation for some commonly held truths, while providing little evidence for others. For example, it provides a clear connection between taxation, financing, and corruption on the one hand, and growth and investment on the other. It suggests the role of systematic consultation of key economic stakeholders in providing an effective environment for firm growth, while policy uncertainty may be importantly related to investment. Conversely, it highlights the costs to economies where the state is captured by a narrow set of private interests.

This survey also discourages universal generalizations. Rather, its value lies in shedding light on the enormous variance in the nature and severity of different types of constraints across countries and regions, as well as between firms of different characteristics. This variance implies that global generalizations regarding the severity of a particular constraint are of limited value. It also suggests the importance of “unbundling” generic clusters of constraints. Although two countries may have severe regulatory or governance constraints, for example, the components may be quite different in each country. The detail afforded by the survey also suggests that generalizations about firm size and formality may benefit from a nuanced analysis of actual conditions.

The WBES data on state capture raise an important policy caution: Poor conditions may in fact work to the benefit of some firms. They may be the result of the companies’ efforts to shape policies affecting them through their illicit or licit influence. In such contexts, conventional advice to government officials regarding reforms of rules and regulations will have limited impact, because of state capture by vested interests.
APPENDIX A. COUNTRIES SURVEYED IN
THE WORLD BUSINESS ENVIRONMENT SURVEY**

Central and Eastern Europe (CEE)
Albania, Armenia, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic,
Hungary, Poland, Romania, Slovak Republic, Slovenia, and Turkey.

Commonwealth of Independent States (CIS)
Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyz Republic, Lithuania,
Moldova, Russia, Ukraine, and Uzbekistan.

Developing East Asia
Cambodia, Indonesia, Philippines, and Thailand.

Newly Industrialized East Asia (NIC) and China
China, Malaysia, and Singapore

Latin America and the Caribbean (LAC)
Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic,
Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru,
Trinidad and Tobago, Uruguay, and Republica Bolivariana de Venezuela.

Middle East and North Africa (MENA)
Egypt, Tunisia, West Bank and Gaza (region)

Organization of Economic Cooperation and Development (OECD)**
Canada, France, Germany, Italy, Portugal, Spain, Sweden, United Kingdom, and
United States.

South Asia
Bangladesh, India, and Pakistan.

Sub-Saharan Africa
Botswana, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Madagascar, Malawi,
Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

Regions Classified as Developing = Developing East Asia, Latin America and the Caribbean,
Middle East and North Africa, South Asia, and Sub-Saharan Africa.

Transition Economies = CEE plus CIS.

**Japan was not surveyed because of the expense.

REFERENCES
Batra, Geeta, and Hong Tan. Forthcoming. "Inter-Firm Linkages and Total Factor Productivity Growth in
Malaysian Manufacturing." World Bank, Washington, D.C.


NOTES

*This article is adapted from a larger volume, *Voices of the Firm 2000: Investment Climate and Governance Findings of the World Business Environment Survey (WBES)*, by Geeta Batra, Daniel Kaufmann, and Andrew H. W. Stone (World Bank 2002). The WBES Steering Committee included the authors and Guy Pfieffermann, Homi Khuras, Shyam Khemani (later Joseph Bhatt), and Luke Haggarty. Partners included EBRD, IDB and Harvard CID. The work for this paper was supported by a grant from the Swiss Government, and by joint funding from FIAS, the Private Sector Advisory Department, the World Bank Institute, and the Innovation Marketplace.


2See IFC (2000).

3Governance here refers primarily to the degree of corruption, as well as qualities of the state in underpinning markets, such as transparency, fairness, accountability, efficiency, and effectiveness.

4Readers may access the core dataset of WBES at http://www.worldbank.org/privatesector/ic/ic_soa_resources.htm and apply an interactive webtool to explore the data at http://info.worldbank.org/governance/wbes/.

5The subcontractor carrying out the survey in China could ask only this general constraint question about corruption. Thus, no data from further detailed questions on this topic were obtained.

6This question is answered only by firms acknowledging that payments are made: for example, for OECD, 62 percent means that among the 12 percent of responding firms that acknowledge that payments are required, 62 percent reported that services paid for are delivered as agreed. This works out to only about 7 percent of all survey respondents.

7Both OLS and probit models for the different constraints were estimated using firm characteristics as explanatory variables, but because of the similar results, only the OLS results are reported.


9For a more in-depth analysis of size effects, see the chapter by Beatrice Weder in this volume.

10This may be related to a “threshold effect,” where obstacles may not constrain entry so much as they deter growth from small to medium size. As Brian Levy (1993) explains, “The threshold burden comprises a discontinuity in the structure of costs that results where some fiscal or bureaucratic burden is imposed only...
on firms above a minimum size. This discontinuity can lead some firms to rein in expansion—or to expand inefficiently by creating quasi-independent enterprises, each smaller than the threshold at which the tax and regulatory requirements are imposed."

11Even the qualified generalizations provided above require particular caution when we study a particular country or region.

12Given the absence of an empirical link between key business environment constraints and growth, the objective here is to highlight the associations between different business constraints and growth without making inferences on causality.

13The question asked was: "In case of important changes in laws or policies affecting my business operation, the government takes into account concerns voiced either by me or by my business association."

14The approach for stepwise inclusion/exclusion of variables was to maintain certain control variables for firm characteristics whether or not they were significant, but to retain constraint/policy variables only if they had a significant coefficient. Thus, Tables 9-8 and 9-9 are reporting the outcome of a lengthy set of steps leading to a single final specification.

15Since there were 80 countries and one territory in the sample, this required 80 country indicators (for each country/territory other than Albania—which, owing to alphabetical ordering, served as the base case). Country control variables were used to pick up potentially omitted factors specific to a country that would influence the overall response (such as recent civil war, different culture). Thus, the coefficients on constraint scores can be interpreted as the associated difference in growth levels with variations in these conditions (and by inference policy differences) at the national level.

16See, for example, Batra and Tan (forthcoming); Roberts and Tybout (1996).

17For example, the coefficient for financing suggests that a firm that identifies itself as constrained to a moderate or major degree by financing, on average, reports a growth rate that is 4.63 percentage points lower than one that is not so constrained (other things equal). A firm seriously constrained by corruption reports, on average, a growth rate 3.95 percent lower than one that is not so constrained.

18The question was, "In the last three years, the laws, regulations and policies affecting my business have become: (1) much more predictable, (2) somewhat more predictable, (3) unchanged, (4) somewhat less predictable, (5) much less predictable."

19This analysis draws from the framework presented by Johnson, Kaufmann, and Shleifer (1997) for the unofficial economy in transition, subsequently extended for 69 countries worldwide (Johnson, Kaufmann, and Zoido-Lobaton, 1999; Friedman and others 2000).

20By contrast, the coefficients for new firms, sector dummies, and private ownership are insignificant, implying that, controlling for other factors, a firm’s age, sector, or mode of ownership are not explanatory factors in the extent of the firm’s underreporting.


22Hellman and Kaufmann 2001. For background research on state capture in transition, and for interactive access to this dataset, see http://info.worldbank.org/governance/hecps/

23See Rose-Ackerman (1978); Klitgaard (1988); Shleifer and Vishny (1994); Mauro (1997).

24In other words, in settings where corruption is predictable, the premise is that corruption would not have harmful effects compared to where the degree of unpredictability of corruption is much higher. See, for example, Campos, Lien, and Pradhan (1999).

25In Table 9-2 we also find similar results to those reported in Table 9-1 in terms of which firm characteristics matter, controlling for other factors. Firms that are not large (small or medium-sized), produce for the domestic market (non-exporters), lack foreign investment, and are privately owned tend to engage more in unofficial activity. By contrast, the coefficients for both de novo firms and for location are insignificant, implying that, controlling for other factors, neither the firm’s age nor its location of headquarters is a determinant.
Small and medium enterprises (SMEs) play a central role in economic growth and poverty alleviation in developing countries and transition economies. Yet small and medium-scale enterprise may suffer from a number of disadvantages compared with larger firms. Market imperfections, notably those caused by underdeveloped financial and legal systems, typically constrain small firms and severely limit their ability to grow. Economies of scale and entry cost favor large firms, and large entrepreneurs usually wield more political influence. Thus government rules and regulations may also be biased in favor of large firms. To the extent that market and government failures are more prevalent in developing countries, these may constitute sizable obstacles to the growth of enterprises—and thus impede upward mobility and poverty reduction.

It is therefore particularly important that governments focus their attention on removing the kinds of obstacles identified in this chapter, in their efforts to encourage the creation and growth of small enterprises.

This chapter provides empirical evidence that smaller firms are indeed at a disadvantage compared with larger firms. Our analysis drew on a worldwide survey of some
10,000 business executives and examined a number of business obstacles, such as corruption, policy uncertainty, access to financing, taxes, and regulations. For most obstacles, we found that firm size and obstacle level are negatively associated. We also found that the advantages of being large seem to outweigh the possible disadvantages, such as being a more visible target for extortion. Our study revealed that a few obstacles, such as policy uncertainty, affect entrepreneurs of all sizes equally severely: that is, they do not discriminate between firm size.

The empirical exercise has been possible thanks to the availability of a new data set compiled by the World Bank, the World Business Environment Survey (WBES). It contains surveys of more than 10,000 private sector firms in 80 countries and one territory (West Bank and Gaza) (for a list of countries, see Appendix A to Chapter 9, page 212). The survey aims to characterize the business environment and uncover obstacles for business development. One advantage of this data set is that it presents detailed firm-level information and enough observations to allow analysis at the regional level and even country by country. A similar data set that was also collected by the World Bank contained an insufficient number of observations to conduct such a detailed analysis.

One of the side effects of this study is to shed light on two competing views of the informal sector. The (somewhat simplified) “De Soto View” argues that informality is involuntary; firms remain informal because of the enormous costs associated with bureaucratic corruption. The (also simplified) “Maloney View” states that small entrepreneurs voluntarily choose to be informal. (For more on this view, see the chapter by William Maloney in this volume.) Small entrepreneurs may be less affected by regulations because they can more easily slip into informal arrangements: for instance, escaping the notice of corrupt tax assessors, who might focus on larger firms that promise higher returns. The evidence from the WBES supports the view that small-scale entrepreneurs are severely affected by corruption, more so than medium- and large-scale entrepreneurs.

WHY SHOULD FIRM SIZE MATTER?

The basis for any program to develop and foster small and medium-sized companies is the assumption that these firms have more problems than larger ones. However, in theory, small firms do not necessarily have to be worse off than medium and large firms. This section presents opposing arguments both on why smaller firms might be worse off and why they might be better off than large firms. Depending on the strength of the influence of these forces, different patterns of the relationship between firm size and obstacle levels will result.

Do Smaller Firms Have More Problems?

Several arguments have been advanced as to why smaller firms might have more problems than larger firms:

*Economies of Scale and Entry Costs*

Business obstacles may be particularly severe for small firms because they amount to fixed costs—costs that a large firm can absorb more easily. It is useful to distinguish
between the source of the obstacle: whether it is market-based or government-induced. An example of a market-based obstacle for small firms could be financing, since there are fixed costs associated with loan review. Government-induced obstacles could include bureaucratic discretion, since small firms may be unable to bribe their way through bureaucracy. In a famous experiment, Hernando de Soto (1987) explored the enormous obstacles in terms of red tape that small entrepreneurs faced when trying to obtain a business license. That study revealed very high entry costs for small entrepreneurs who lacked political clout with the government and bureaucracy and who could not bribe their way through the system.

Political Economies of Scale and Influence

Large firms may have more possibilities of collusion, with other firms as well as with the public sector. Mancur Olson (1965) showed that groups consisting of many members, are difficult to organize since there is a free rider problem. This means that larger firms might be more successful in influencing politics and obtaining new rules in their favor, and thus gaining advantage over smaller firms. Large firms might also craft special deals with government exactly because of their power and their importance in the economy. For example, in a recession, they might threaten to lay off workers if they do not get tax reductions.

Do Larger Firms Have More Problems?

Conversely, there are several good arguments as to why larger firms might have more problems than smaller firms:

Informality

Small firms can more easily slip into informal arrangements, thereby avoiding taxes and regulations. Simon Johnson, Daniel Kaufmann, and Pablo Zoido-Lobatón (1998) have presented empirical evidence showing that a high level of corruption and weak institutions increases the size of the informal sector.

Exposure

Large firms may be more exposed to corruption since they usually have higher profits than small firms, they are more visible, and they may be more interesting targets for blackmailing and kickbacks.

Depending on the strength of these forces, various patterns of firm size and obstacle levels may result.

Hypothesis 1

Small firms suffer more than medium-sized firms, which suffer more than large firms. That is, there is a decreasing relationship between firm size and obstacle. This is the case when reasons that favor large firms are important, such as their greater political influence, or their greater ability to absorb the high fixed cost associated with obstacles. At that same time, slipping into informality, which could favor smaller firms, is not possible or is possible only to a limited extent.
Hypothesis 2

*Large firms suffer more than medium-sized firms, which again suffer more than small firms.* That is, there is an increasing relationship between firm size and obstacle. This can be the case when conditions favoring smaller firms are important, such as slipping into informality, but conditions favoring larger firms do not have a big effect.

Hypothesis 3

*Medium-sized firms are worst off.* That is, there is a hump-shaped relationship between firm size and obstacles. Medium-sized firms may be too visible to be informal, but might not have enough political clout to influence government and bureaucracy in their favor.

Hypothesis 4

*Medium-sized firms are best off. Both small and large firms have problems.* That is, there is a U-shaped relationship between firm size and obstacles. Small firms might face problems because of a combination of the high fixed-cost component of obstacles and limited political influence. Large firms might have problems because of their high visibility and exposure.

Hypothesis 5

*All three firm sizes face the same obstacle level.* This is the case if the forces that lead to differences between sizes are weak or cancel one another out.

Differences in size may not be the only reason why firms may experience varied levels of obstacles. Other firm characteristics may be more relevant than size, or may be highly correlated with size, such as age. For instance, *older firms* have more experience and have had time to learn how to deal best with the specific obstacles in their business environment. They also have had time to build up a reputation, which facilitates financing. Therefore, older firms might experience lower obstacle levels than younger firms. However, firms in formerly Communist countries offer evidence to the contrary. Firms that were established before 1989—that is, firms from the Communist era—are often heavily indebted and therefore might experience higher obstacle levels than firms that were launched in the post-Communist era.

There are many reasons to believe that *government participation* in ownership has an influence on the level of obstacles for doing business. Firms partly or fully controlled by government might be less exposed to corruption and blackmailing than private firms. They might also receive special treatment with regard to taxes and regulations, have easier access to infrastructure, be more satisfied with the functioning of the judiciary than private firms, and be less exposed to various forms of crime. Government-controlled firms may have better access to financing than private firms because of the soft budget constraints. However, in an environment of contracting public financing, they may also face more difficulties in raising money than private firms.

Firms that are *owned partly or fully by a foreigner* might find it more difficult to adapt to local customs and to the political system. Therefore, they might report higher obstacle levels. Moreover, because foreign-owned firms are likely to have higher import and
export rates than the average firm, the exchange rate obstacle could be worse for them than for others. But there are also arguments for a positive relationship between obstacles and foreign control. Multinationals may have very good relations with the government and they may more easily and credibly threaten to exit and relocate. Furthermore, they may be able to avoid taxes by shifting profits to a country with lower tax rates.

**THE EMPIRICAL EVIDENCE**

This paper uses the WBES, which was conducted by the World Bank in 1999–2000. It contains observations on 10,090 firms from 80 countries and one territory, West Bank and Gaza. The questionnaire has two parts. The first consists of 15 questions on firm characteristics, such as the firm’s main sector of activity and its size. The second asks questions on potential risks and obstacles for doing business, notably the quality and integrity of public services, the legal system, predictability of policies, rules and regulations, the availability and quality of financial sector services, and the nature of corporate governance.

Four size categories of firms are specified. Microenterprises have fewer than five full-time employees. Small firms have 5–50 employees. Medium-sized firms have 51–500 employees. Large firms have more than 500 employees. For firms reporting fewer than five employees, the interview was terminated immediately. Only firms with at least five full-time employees have been included in the dataset. About 40 percent are small firms, another 40 percent are medium-sized firms, and about 20 percent are large firms. Further firm characteristics used to investigate the relationship between firm size and obstacle levels are the age of the firm (question 7 of the questionnaire), government ownership (question 8), and foreign ownership (question 9). The median age is 10 years; the mean is 19.75 years. About 12 percent of firms have at least some government ownership and 19 percent have foreign ownership. The characteristics of the sample are summarized in Table 10-1.

Entrepreneurs were asked to rate the seriousness of a variety of obstacles for their businesses (question 44). The obstacles are listed in Table 10-2. Answers were in multiple-choice format and offered four possible answers ranging from 1 (no obstacle) to 4 (major obstacle).

<table>
<thead>
<tr>
<th>Table 10-1 Composition of the Sample by Firm Size and Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>All firms</td>
</tr>
<tr>
<td>(%</td>
</tr>
<tr>
<td>All firms</td>
</tr>
<tr>
<td>Small</td>
</tr>
<tr>
<td>Medium</td>
</tr>
<tr>
<td>Large</td>
</tr>
</tbody>
</table>

Note: The samples for age, government ownership, and foreign ownership vary slightly. In particular, firm age is based on the world without the African sample.

Source: Author’s calculations based on the WBES.
Table 10-2  The Seriousness of Obstacles to Business (question 44 of the survey)

Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic the following factors are for the operation and growth of your business. How about (read A–K)?

A. Financing
B. Infrastructure (e.g., telephone, electricity, water, roads, lands)
C. Taxes and regulations
D. Policy instability or uncertainty
E. Inflation
F. Exchange rate
G. Functioning of the judiciary
H. Corruption
I. Street crime, theft or disorder
J. Organized crime or Mafia
K. Anti-competitive practices by government or private enterprises

4 Major obstacle
3 Moderate obstacle
2 Minor obstacle
1 No obstacle

5 No answer known
6 Answer refused

---

Figure 10-1. Percentage of Small and Large Firms That Considered an Obstacle to Be Major.

Note: Major means that firms chose (4), the highest possible obstacle level. Lower obstacle levels are (3), moderate obstacle; (2), minor obstacle; and (1), no obstacle. Sample: 1,090 firms, worldwide.

Source: Author's calculations based on WBES data.

We now take a first look at the data by comparing average obstacle levels for small and large firms, only. Figure 10-1 shows the percentage of small and large firms that reported a particular obstacle as major. 10

Figure 10-1 shows a clear pattern in the comparison between small and large firms: Small firms report a higher level of problems in every single category, with the exception of
Although this evidence is not conclusive, it gives some indication of the results in the small-large comparison. It is compatible with Hypothesis 1, which states that size effects (economic and political in nature) dominate over possible “evasion” advantages that small firms might have.

Note also that small and large firms have different patterns of concerns. For small firms, financing appears as the top problem, followed by inflation. Financing is probably the area where most efforts to promote small and medium enterprise have been concentrated to date. The finding on inflation, however, confirms the belief that sound macroeconomic management is important not only for overall growth in general but for the growth of small firms in particular.

By comparison, large firms appear to have fewer problems in obtaining financing and dealing with inflation. For this class of firms, policy instability ranks first on their list of complaints. This finding is consistent with earlier studies that have found frequent and unpredictable changes in a laws and policies and non-credible policy announcements to be an important obstacle to growth.11

Next on the ranking of small firms are taxes and regulations. It is interesting to note the differences between large and small firms: only 20 percent of large firms report taxes and regulations as a major problem, while the percentage for small firms is over 35 percent. This runs contrary to the idea that small firms can easily avoid taxes and regulations by going into the informal sector and enforcing the view that there are positive size effects. It is also compatible with the view that large firms may have better access to the government and the higher levels of the bureaucracy and that this facilitates their preferable treatment in tax and regulation matters. It would be interesting to have more information on how firms perceive particular regulations and to be able to distinguish between the impact of tax levels, tax administration, and regulations. Unfortunately, the survey does not allow us to make this distinction.

The next obstacles in the ranking are institutional obstacles such as corruption, crime, and organized crime (and one macroeconomic obstacle, the exchange rate). As noted above, there is a large empirical literature that shows that high levels of corruption decrease overall private investment and growth.12 However, most of this literature has not been able to distinguish between firms of different sizes. By providing data on obstacles by firm sizes, the WBES survey may help shed some light on two competing views of the informal sector. The (somewhat simplified) “De Soto View” of the informal sector says that informality is involuntary and caused by the enormous costs associated with bureaucratic corruption. The (also simplified) “Maloney View” of the informal sector states that small entrepreneurs voluntarily choose to be informal. The evidence presented here supports the De Soto view: small firms report larger problems with corruption (as well as taxes and regulations) than do large firms.

Infrastructure and the judiciary are last on the list of concerns for both large and small firms. The result on the judiciary is interesting because there is an ongoing debate about the significance of a malfunctioning judiciary. Since enforceable property rights and contracts are universally believed to be important for growth, the presumption is that the judiciary should play a central role.13 However, when asked, firms often report little problems with the judiciary. This finding is open to two opposite interpretations: It could...
be a sign of a malfunctioning judiciary or it could be a sign of a well-functioning judiciary. In the first interpretation, firms might not perceive the judiciary as a major obstacle because they have found ways of doing business without relying on it. In the second interpretation, a well-functioning judiciary serves as a credible enforcement device, which as a consequence hardly ever needs to be used. This interpretational problem is common to many survey-based studies of judiciary efficiency.

Obviously, the preceding analysis is very coarse. It is useful in gaining an idea about the level of obstacles, but it does not allow any conclusions to be drawn about the significance of differences between large and small firms and it does not say anything about medium-sized firms. The results may be spurious since firm size may be systematically associated with other firm characteristics, such as ownership or age. For instance, large firms may face fewer obstacles simply because they tend to be older and are further down the learning curve. To test this, we include firm age in the estimates below. For similar reasons, we also control for firm ownership, whether foreign or local, and whether privately held or fully or partly owned by the state. Finally, we also control for country-specific effects. We address these issues using ordered probit estimates and include country dummies and firm characteristics as control variables. We include indicators for small and for large firms. The medium-sized firms serve as the comparator. The results are shown in Table 10-3.

Table 10-3  Results of Ordered Probit Estimates on Obstacle Size by Size

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Small firm</th>
<th>Large firm</th>
<th>Older firms</th>
<th>Firms with government control</th>
<th>Firms with foreign control</th>
<th>No. of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>0.043</td>
<td>-0.145</td>
<td>-0.130</td>
<td>0.048</td>
<td>-0.024</td>
<td>7,635</td>
</tr>
<tr>
<td>Taxes and reg.</td>
<td>-0.022</td>
<td>-0.061</td>
<td>-0.0002</td>
<td>0.062</td>
<td>-0.103</td>
<td>7,718</td>
</tr>
<tr>
<td>Inflation</td>
<td>-0.070</td>
<td>-0.239</td>
<td>-0.373</td>
<td>-0.498</td>
<td>-0.510</td>
<td>7,532</td>
</tr>
<tr>
<td>Exchange rate</td>
<td>-0.028</td>
<td>-0.025</td>
<td>-0.0002</td>
<td>-0.122</td>
<td>-0.003</td>
<td>7,405</td>
</tr>
<tr>
<td>Corruption</td>
<td>0.087</td>
<td>-0.089</td>
<td>-0.001</td>
<td>-0.039</td>
<td>-0.039</td>
<td>6,811</td>
</tr>
<tr>
<td>Street crime</td>
<td>0.519</td>
<td>-0.641</td>
<td>-0.898</td>
<td>-3.821</td>
<td>-1.899</td>
<td>7,221</td>
</tr>
<tr>
<td>Organized crime</td>
<td>0.004</td>
<td>0.014</td>
<td>0.0001</td>
<td>-0.330</td>
<td>-3.300</td>
<td>6,939</td>
</tr>
<tr>
<td>Policy instability</td>
<td>-0.048</td>
<td>-0.004</td>
<td>0.001</td>
<td>0.036</td>
<td>0.058</td>
<td>7,514</td>
</tr>
<tr>
<td>Judiciary</td>
<td>0.084</td>
<td>0.014</td>
<td>0.0001</td>
<td>0.036</td>
<td>0.012</td>
<td>6,967</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.004</td>
<td>0.04</td>
<td>9.24E-06</td>
<td>0.13e+00</td>
<td>0.027</td>
<td>7,589</td>
</tr>
<tr>
<td>Anti-comp. pract.</td>
<td>-0.240</td>
<td>0.004</td>
<td>0.0001</td>
<td>-0.038</td>
<td>-0.010</td>
<td>6,820</td>
</tr>
<tr>
<td></td>
<td>-1.448</td>
<td>-2.808</td>
<td>1.646</td>
<td>-1.914</td>
<td>-1.300</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the 10% level; ** Significant at the 5% level; *** Significant at the 1% level.
Note: These results were estimated without the African countries because of incompatibilities in the age question of the African data set.
Source: Author's calculations based on WBES data.
To simplify the interpretation of the table, we have shaded all coefficients that are negative and significant (at least at the 10 percent level) in gray and those that positive and significant in black. Therefore, a gray coefficient means that this class of firms reported a significantly lower level of obstacles than the comparator class; a black coefficient means they reported a significantly higher level of obstacles.

Take, for instance, the results on finance. Large firms reported fewer problems with finance than medium-sized firms. There are no significant differences between small and medium-sized firms. Older firms have fewer problems with financing than younger firms. Foreign ownership helps with access to financing, whereas government ownership hurts. These estimates control for systematic differences between countries by including country dummies (not shown).

We start by focusing on size. For most obstacles, small firms have more problems than medium-sized firms, and large firms have fewer problems than medium-sized firms. That is, the small firms often have a black coefficient and large firms often have a gray coefficient. Thus, the data support Hypothesis 1, even after controlling for other firm characteristics and for country-specific effects. In almost all cases, being large is better than being small. In the results presented here, there is no hump-shaped or U-shaped relationship that would make medium-sized firms systematically better or worse off than others.

Even if there is a general pattern, there appears to be a specific problem for medium-sized firms in the area of taxes. Geeta Batra, Daniel Kaufmann, and Andrew Stone (2002) (see above) apply a very similar methodology to study size effects but include further questions on taxation from other parts of the WBES. They find that medium-sized firms have more problems with tax administration and high taxes. This is an interesting qualification to “the larger the better” result. It fits the hypothesis that small firms can, on average, escape the attention of tax collectors more easily, while large firms may be able to influence the tax administration more effectively than the medium-sized firms. This question is certainly worth exploring in more depth.

There are three other exceptions to the general pattern: Smaller firms have fewer problems than medium and larger ones with infrastructure. In addition, there are no significant differences between firms of any size in their perception of “policy instability” and of the judiciary.

The fact that there are no significant differences among firms in their evaluation of policy uncertainty does not make this an irrelevant area for reform. To the contrary, policy uncertainty ranked among the top obstacles when we look at the level of obstacles, rather than differences among firms. In other words, greater policy stability will help firms of all sizes equally. It follows that efforts to level the playing field and improve the rule of law would benefit small entrepreneurs. In fact, recent empirical literature has suggested that a “level playing field” is one of the crucial preconditions for rapid private sector development. For instance, work by Stephen Knack and Philip Keefer (1995) has shown that the existence of a meaningful rule of law is among the most robust determinants of economic growth in a large cross-section of countries.

A number of other recent studies find significant effects of institutional quality on economic growth.15
Firms with government participation in ownership face significantly fewer obstacles than private firms—with the notable exception of financing, where they have significantly more problems. This may be so because state-owned firms were accustomed to soft budget constraints but may now be facing hard ones, in the context of tighter fiscal management. Also, on average, government-controlled firms may have more problems in obtaining private financing.

Foreign-owned firms report significantly fewer problems than local firms, for the most part. This is an interesting finding in itself since the opposite finding would have been equally possible. However, it appears that the advantages of foreign firms (for instance, in bargaining with the government and their power to credibly threaten exit and relocation) dominate over possible disadvantages, such as being unfamiliar with the local circumstances.

The age of firms does not seem to have a systematic influence on the level of obstacles. There are only two areas where older firms seem to have an advantage: Older firms appear to have better access to finance and fewer problems with anti-competitive practices. However, for most obstacles, firm age is not significant.

POLICY CONCLUSIONS

The conclusions from this analysis can be summarized as follows: overall the presumption that smaller firms face greater obstacles than larger firms was confirmed. This can be interpreted to mean that the economic and political economies of scale for larger firms outweigh any advantage that smaller firms may have from being able to hide in the informal sector.

Several implications for policy follow from these results. First, the finding of a bias against small firms endorses continued support for programs that aim to assist small and medium-sized enterprises. However, the other message from this study is that there are important obstacles such as policy instability that affect firms of all sizes. This suggests caution against biasing resource allocations toward small and medium-sized firms only, and to continue promoting generic reforms that benefit the entire private sector.

Second, the survey yields policy guidance, notably in listing in order of severity the obstacles perceived by executives of firms by size category. This reveals that small and large firms have somewhat different patterns of concerns. The top problems for small firms are financing and inflation, whereas large firms appear to have fewer problems in these areas and policy instability ranks first on their list of complaints. These are general patterns that appear in the worldwide averages. More detailed policy implications should be distilled by analyzing the ranking of obstacles at the country level.16

REFERENCES


10. Obstacles Facing Smaller Business in Developing Countries


—-. 1999. "A Note on an Institutional Bias against Small, Local Firms in Less Developed Countries."
http://www.unibas.ch/wvwz/wzor/staff/bw/survey/new/working_papers.htm


NOTES

*This chapter is a revised version of “Firm Size and the Business Environment: Worldwide Survey Results,” IFC Discussion Paper No. 43 (2001), by Mirjam Schiffer and Beatrice Weder. We thank Guy Pfeffermann and Andrew Stone for helpful comments and Geeta Batra and Mariusz Sumlinski for help with the data. Financial support from IFC is gratefully acknowledged. The opinions presented remain those of the author and do not reflect official policy of the World Bank Group.

1The countries are from Africa, Asia, Latin America, the Transition Economies, and the OECD. There are also data on Turkey and the territory of West Bank and Gaza.


3Nevertheless, an analysis that pooled all developing countries suggested that there is significant bias against small firms (Brunetti, Kisunko, and Weder 1999).

4See de Soto (1987).

5See Maloney (2002).

6The so-called screener portion of the survey.

7In other words, the government could be a minority or majority shareholder. This will be referred to from now on as "government participation in ownership."

8Another variable we examined is the location of firm management: whether in the capital city, a large city, a small city, or the countryside. Nearly all firms interviewed (95 percent) were located in the capital.

9A similar question was asked in a previous World Bank survey and was used to analyze the level of obstacles around the world (Brunetti, Kisunko, and Weder 1998b). However, as noted above, in the previous exercise, there were not enough observations to distinguish between the responses of firms of various sizes.

10Compared to the other possible answers (moderate, minor, and no obstacle).

11See, for example, Brunetti, Kisunko, and Weder (1998a).

12See, for example, Mauro (1995).

13See, for example, Knack and Keefer (1995).

14Ordered probit is used since the endogenous variable is ordered, coded from 1 to 4. See Schiffer and Weder (2001) for a more detailed discussion of the methodology.

15See, for example, Mauro (1995); Alesina and others (1996); Brunetti, Kisunko, and Weder (1998b).

16See Schiffer and Weder (2001) for a country-level listing of obstacles.
Part IV. Public Policy and Public Attitudes
Globalization presents a new set of challenges and opportunities for small-scale firms. The nature of global production and competition is changing, and small and medium enterprises (SMEs) that fail to adapt will not be able to share in the benefits of globalization. Yet there are real opportunities for SMEs to expand their participation in dynamic world markets.

SMEs play an important role in the development process because they constitute a large part of the private sector in developing countries, particularly in low-income and transition economies. In countries with per capita incomes below $500, microenterprises and SMEs account for 60 percent of all firms; in middle-income countries (per capita incomes above $5,000), they have a 30 percent share. The contribution of small firms to employment is even greater, since SMEs are prevalent in labor-intensive industries. Not only are SMEs vehicles for gains in economic welfare for their owners and employees, they also are nurseries for entrepreneurial skills (see Tyler Biggs' chapter in this volume). Bringing these enterprises into global markets offers opportunities for gains in productivity, income growth, and employment for them as well as for the overall economy.

Smaller enterprises tend to be less oriented toward export markets than larger firms, particularly in low-income countries. This raises the concern that small firms have not shared equally in the benefits of globalization. For this reason, and because of their central role in the development process, they have been the focus of government interventions designed to promote economic mobility and alleviate poverty through private sector development. Yet traditional public sector approaches to SME assistance...
seem to have had little real impact on enterprise competitiveness and growth, or on the ultimate objective of reducing poverty. Therefore, governments and donors have been searching for new approaches that might reach large numbers of SMEs, have a real impact on SME performance, and be sustainable and replicable.

This chapter presents such an approach: using linkages between companies ("corporate linkages") to build the capabilities of SMEs and increase their participation in local and global markets. We begin by discussing some of the main underlying problems that affect SME performance. We follow with a description of the opportunities and challenges created for SMEs by recent changes in global production and industrial structure. We then outline the characteristics of a market-oriented approach to SME development that builds SME-corporate linkages. This strategy has the advantage of overcoming some of the main impediments facing SMEs, and positioning them for greater growth and productivity. We then provide detailed examples of such arrangements from two transition economies (Kazakhstan and Russia) and a developing country in Asia (India).

**SME PERFORMANCE AND MARKET IMPERFECTIONS**

Most studies of enterprise performance show that, far from being beautiful, small firms are often quite ugly. Compared to larger firms, SMEs are less productive and less able to compete in external markets, as evidenced by their lower total factor productivity growth and export orientation. They often use outdated technologies and poor workplace practices, resulting in problems with product quality and just-in-time (JIT) delivery. Their labor compensation is low, evidenced by the fact that their employees would often rather work for larger firms.

What causes the poor performance of SMEs? The underlying factors—lack of information, risk (and the lack of instruments to manage risk), lack of access to markets, and low labor and management skills—are the result of the interplay between enterprise scale and market failures. These include:

- A lack of information on market opportunities, particularly in export markets. The fixed cost of gaining information places small-scale firms at a competitive disadvantage and raises the cost of entering unfamiliar markets.
- A lack of information on the part of banks regarding SME creditworthiness. Again, the fixed cost of gaining information relative to the scale of SME loans makes it uneconomic to gather that information.
- The high risk—real or perceived—of lending to SMEs, combined with lack of adequate instruments to manage that risk. The high risks and transactions costs faced by financial institutions reduce the volume of lending to SMEs; this, in turn, leads to the often-cited problems of "lack of access to credit" and interest rates that are substantially higher than those paid by larger firms.
- Difficulties in obtaining quality inputs at competitive prices, related both to the small scale of purchases as well as the high cost of information to SMEs.
- The failure to adopt modern technologies and meet the quality and standards requirements of external markets. (Again lack of information, small scale, and sometimes lack of access to credit are at fault.)
11. Bringing SMEs into Global Markets

- Poor management skills and workplace practices, in part because the cost of business services is beyond what SMEs can afford to pay, and the services available may not suit their needs and circumstances.

The efficiency problems of SMEs can usually be traced to the high fixed costs of gaining information, complying with regulations, and acquiring skills; and the underdeveloped nature of many service markets (financial services, business services) that are appropriate to SME needs.

To deal with these constraints, SMEs often operate in different markets than do larger firms:

- They access information through networks of friends, family, and other small firms.
- Instead of borrowing from financial institutions, they use internal sources of finance (retained earnings and family resources) and short-term credit from buyers and suppliers.
- They provide business services internally (for example, training their own workers or doing their own accounting), rather than hiring external providers.

All these informal arrangements are rational responses to market imperfections and information asymmetries, but the persistence of these fundamental obstacles inhibits the ability of SMEs to compete and grow. Furthermore, informal arrangements begin to break down as SMEs try to sell in more sophisticated markets, as banks and buyers demand more transparency and formal business processes. For example, competing in export markets often translates into pressure from foreign buyers for on-time and more frequent delivery. The subsequent requirement that suppliers hold more inventory means that access to working capital becomes a critical factor determining the competitiveness of suppliers. Traditional sources of SME finance (internal resources or family) are often inadequate for this purpose.

PARTICIPATING IN GLOBAL SUPPLY CHAINS

In the past, multinational corporations have often used facilities in developing countries and transition economies as “screwdriver” plants, where the only value added was derived from cheap local labor employed to assemble the final product. For example, until last year, Isuzu’s plant in Thailand imported all necessary parts from Japan and other Asian countries, using local labor only to perform complete knockdown (CKD) assembly of the company’s pickup trucks. In this case, Isuzu-Thailand’s competitive advantage was based almost exclusively on the country’s low-cost labor.

Increasingly, however, competitive advantage derived from cheap labor alone has eroded. In the manufacturing sector, where the costs of material and spare parts constitute 35 to 85 percent of operating expenses, managing non-labor input costs is vital to the survival of an enterprise. The competitiveness of multinational enterprises, particularly those in manufacturing with production facilities in developing countries, is determined in large part by their ability to assemble modular components that meet demanding quality, cost, and delivery (QCD) requirements. Companies like Isuzu are reconsidering the organization of their global production, moving from point-of-sale
assembly plants to regional production strategies where various components of the final product are manufactured in different countries of the region and sent to another country in the region for final assembly. For example, TRW Thailand has a regional sourcing strategy in which it manufactures low-technology parts in Thailand, medium-technology components in Malaysia, and a few high-technology parts in Japan and Taiwan. All components are shipped to TRW Thailand for distribution to automobile assemblers such as Ford and GM.

This change in the global organization of production underscores the importance of well-structured, tiered supply chains as a source of productive efficiency. A tiered supply chain is defined differently according to industry, but always revolves around a pyramid structure where increasingly more value is added as materials move up the supply chain. At the bottom of the pyramid are Tier 4 suppliers—basically processors of raw material. At the top are Tier 1 suppliers that consolidate inputs from Tier 2 and 3 suppliers and deliver finished modules to original equipment manufacturers (OEMs) for final assembly.

In the automotive industry, for example, over 10,000 parts are required to complete an automobile. These parts are not purchased separately by the automotive assembler, but rather in large and complex modules. The assembler requires a structured market where there are a few large suppliers or consolidators of goods and services that deliver modules or clusters of goods. Below these large suppliers are numerous other enterprises organized nearly in a cascading order. For example, suppliers of front dashboards deliver a complex unit consisting of molded plastics, metal clips and screws, electronic harness and computer chips, and other components. The unit requires inputs from companies in a wide range of industries: plastics, metals, electronics, rubber, and glass. It is not enough for suppliers to be competitive in just one or two discrete industries like molded plastics. These companies must be allied with many other competitive companies from different industries, such as metal processing and casting, electrical parts and wire harnesses, and computer chips. The alliances must be established within a tiered market structure that allows buyers of goods and services to deal with as few companies as possible to acquire the desired product.

In many developing countries, supply chains are absent or only partially developed. Industrial structures are often characterized by a small number of large-scale firms (state-owned enterprises or local conglomerates) and a large community of small-scale and microenterprises. There are fewer medium-sized enterprises—the so-called “missing middle”—and to the extent that small-scale firms act as suppliers to larger firms, they often deal directly rather than through medium-scale intermediaries.

A market structure where production facilities must deal with many small companies, and where economies of scale are difficult to realize, does not create an environment where information and know-how flows smoothly across the various tiers in the supply chain. Without a well-defined market dynamic between various local enterprises, corporations are unable to realize the production efficiencies, market coordination, and reliability required to meet their QCD requirements.

In developing countries without a tiered market structure, some multinational corporations (MNCs), such as Toyota, create their own. If enough elements of a structured
supply chain already exist in a market, multinationals often weigh the costs of investing to develop their own supply chain against those of continuing to import components, and therefore operating their facilities in a less efficient structure. It is with these companies on the threshold of integrating SMEs into their supply chains that government interventions can make a difference.

From the point of view of SMEs, becoming part of an MNC supply chain provides two types of opportunities. First, relationships among firms in the supply chain offer a means of building SME capabilities and compensating for some of the high transactions costs and market imperfections that affect SMEs. These include access to equipment and technology, training, quality control, and sometimes financing (Box 11-1). Such relationships help overcome some of the “supply-side” constraints that inhibit

---

**Box 11-1  Subcontracting and Productivity Growth: Evidence from Malaysia**

Malaysia's policy is based on the premise that inter-firm linkages can be important mechanisms of both formal and informal transfer of technology, helping domestic firms improve their technological capabilities and productivity. The government promotes vendor programs linking SMEs and subcontractors to larger firms, and is fostering upstream and downstream linkages between firms in designated sector-based clusters.

A recent study (Tan 2000) attempted to determine the causal effect of inter-firm linkages on productivity in Malaysian firms, including the relationship between subcontracting by foreign firms and productivity growth in their domestic suppliers. The report analyzed a large database of between 5,000 and 8,000 establishments a year from 1985 to 1995.

Although inter-firm linkages were not found to be common among Malaysian firms (they are more usual among foreign firms), over time these linkages have become more frequent, increasing from 17 percent of companies in 1985 to 27 percent in 1995. Where they do exist, such inter-firm linkages are associated with sizable transfers of technology and know-how, especially to local suppliers. The most important types of transfers to suppliers are improving the quality and timely delivery of parts and components, advice on technology, and worker training (see table below). These forms of assistance address precisely those areas of weakness that buyers cite as being the principal impediments to using local suppliers.

| Types of Assistance Provided by Foreign Buyers to Malaysian Suppliers (% of buyers) |
|---------------------------------|--------|
| Organize production lines       | 32.0   |
| Equipment leasing               | 39.3   |
| Equipment repair                | 33.3   |
| Worker training                 | 41.4   |
| Staff secondment                | 23.5   |
| Match-making with others        | 16.6   |
| Quality control                 | 66.2   |
| Transportation/JIT delivery     | 44.0   |
| Improve technology              | 47.0   |

Although local suppliers were less productive than foreign firms when they first became suppliers, their productivity disadvantage diminished over time with accumulated years of experience doing subcontracting work. The findings are similar to those of other studies that find positive spillovers from foreign direct investment working through backward linkages (for example, Smarzynska 2002 and Blalock 2001).
SME performance. Second, participation in supply chains assists SMEs on the demand side, linking them to larger external markets as "indirect exporters" (that is, suppliers to direct exporters). This market expansion represents an important opportunity for the many SMEs that are not yet prepared to compete directly in export markets.

In sum, changes in the organization of global production have opened up new opportunities for SMEs to participate, directly or indirectly, in larger and more dynamic markets. Integrating into the supply chain and meeting quality and delivery time thresholds are imperative for SMEs that want to participate in the global marketplace. The supply chains of MNCs can expose SMEs to best practice and international norms and standards, leading to changes in their behavior and business practices and therefore to improved performance.

MARKET-ORIENTED INTERVENTIONS TO ASSIST SMEs

Traditional government interventions to assist SMEs have attempted to compensate for the lack of low-cost financial and non-financial services for SMEs by providing them free or at subsidized rates. Dedicated credit lines at subsidized interest rates, SME business centers funded by the public sector and run by ministries of industry, and government-sponsored export promotion agencies were thought to be necessary to bring needed services within the economic reach of small firms. To encourage demand for SME products, governments have imposed local content requirements on foreign investors and small enterprise preferences in government procurement regulations.

The problems with traditional approaches to SME assistance are well known. Since these programs are limited by the availability of public funds, they tend to reach only a small proportion of the total population of SMEs and may not be sustainable over the long term. Government employees are often unable to provide the up-to-date, industry-specific market information and technology services that are needed to meet the requirements of rapidly changing markets. Subsidized credit undermines the efficient allocation of financial resources and may discourage the development of non-credit financial instruments.

The recognition of these problems has led to "new paradigms" in SME assistance. As is the case in the microfinance industry, SME interventions are increasingly judged on the basis of outreach, sustainability, cost-effectiveness, and impact. In financial services, governments are shifting away from subsidized credit and instead training banks in credit evaluation methodologies and low-cost lending techniques—and requiring that interest rates on loans to SMEs allow full cost recovery. Many programs are designed to improve information on SME creditworthiness, reform laws governing collateral to cover moving assets, and develop non-credit financial instruments such as leasing and factoring. In the non-financial area, instead of providing subsidized services through public sector agencies, governments and donors are experimenting with ways to develop markets for business development services. The aim is to develop a wide array of services that are relevant to SME needs and can be provided on a commercial, and therefore sustainable, basis.

While these new approaches are a major step forward, there may be limits to commercial development of small enterprise services, particularly in very underdeveloped
11. Bringing SMEs into Global Markets

Markets, in the short run. Reaching certain target groups—rural enterprises, microenterprises, women entrepreneurs—presents problems for commercially oriented business service providers because the methodologies to provide low-cost services are not well known. In transition economies with incipient market institutions, the challenge is even greater. In countries with underdeveloped financial sectors, capacity building in banks that lend to SMEs may help reduce administrative costs, but not the risks of small business lending.

In addition, for some types of services, market imperfections may persist. Information has characteristics of a public good, as do certain types of training and networking services. Building an “entrepreneurial culture” is an investment in valuable “social capital” for business, but it is difficult to divide into enterprise-specific services that can be sold on a commercial basis. Non-financial services are often bundled together with other services or products (for example, when assistance in adopting new technologies is combined with design and training services) or delivered as part of another transaction (for example, training received along with the purchase of equipment).

Most government interventions to help SMEs, even those designed to be commercially sustainable, deal mainly with the supply side of SME performance (improving the quality or cost-competitiveness of SME products) rather than the demand side (increasing the demand for SME products). Building enterprise capabilities is necessary but may not be sufficient. Unless SMEs are connected to a stable source of demand for their products, even the most capable will fail. Combining capacity-enhancing interventions with increased demand for SME products is a surer route to success. Finally, traditional government interventions deal with SMEs as separate entities rather than as members of an integrated supply system that collectively responds to the complex purchasing and operational requirements of larger enterprises.

BUILDING SME-CORPORATE LINKAGES

The evolving structure of global production and the failure of traditional government and donor interventions to assist SMEs lead us to consider a different strategy to build SME competitiveness: a market-oriented approach that promotes linkages between SMEs and larger corporations. SME-corporate transactions provide an alternative delivery mechanism for financial and non-financial services that is complementary to stand-alone purchases from financial institutions and business service providers. The approach builds both basic and product-specific technical skills to allow SMEs to participate in the supply chain of multinational firms, and operates on the demand side as well as the supply side, linking SMEs with markets for their products.

The approach attempts to stimulate the formation of a tiered supply chain among SMEs that is responsive to the QCD demands of multinational enterprises. It relies on the technical, engineering, and management capability as well as the financial leverage available from multinationals to strengthen local SMEs to meet international norms and standards. The SME-corporate linkage model:

- Operates within the different markets and delivery mechanisms that are used by SMEs to access financial and non-financial services.
Facilitates, rather than substitutes for, private firm-to-firm transactions.

- Reduces the risks and transactions costs that result from underdeveloped financial markets and the small scale of SMEs.
- Ties supply side actions (building SME capabilities) to demand side actions (increasing demand for SME products and services).
- Is not altruistic, but rather is based on transactions that are in the economic interests of both SMEs and corporations.
- Does not subsidize transactions directly, and thus creates fewer distortions than price subsidies.
- Builds on what is there, particularly with respect to private networks that are already functioning.
- Is temporary in nature, with a clear exit strategy.

The SME-corporate linkage approach has its origins in vendor development programs (VDPs), in which corporations provide technical, management, and financial assistance to their suppliers. The best-known form of VDP can be found in the Japanese keiretsu system, in which large manufacturing companies have a long-term and often captive relationship with a large number of suppliers. The SME-corporate linkage approach is a derivative of this type of VDP, but one in which relationships between corporations and their suppliers are neither long-term nor captive. Instead, relationships are established or dissolved based on the ability of such collaboration to create value through a well-coordinated product and process development (Hiratsuka and Konishi, 2001).

SME-corporate linkage programs can help create the tiered market structure that is required for VDPs to work effectively. There are at least three partners in this type of program:

- One or more corporate partners with a production facility in a developing country, where shifting to local sourcing could lead to substantial cost savings.
- The host government, responsible for creating a policy and institutional environment conducive to foreign investment and for the development of a structured supply system between local and foreign enterprises.
- Donor organizations or government agencies that mediate the linkages, provide funding for technical assistance, and sometimes provide SME financing.

The roles and responsibilities for each of the partners, and the potential benefits of the program, are shown in Table 11-1.

Governments or donors work closely with one or two corporate partners to identify and tackle critical problems faced by local SMEs, giving special attention to companies with potential for becoming a part of the multinational's supply chain. The corporate partner would be expected to provide guidance to the program team, while experts hired under such a program would be responsible for delivering direct assistance to local SMEs. Unlike traditional SME support programs, the approach
### Table 11-1 SME-Corporate Linkage Programs: Partners and Responsibilities

<table>
<thead>
<tr>
<th>Partner</th>
<th>Roles and responsibilities</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Corporate partner | • Commit to expand local sourcing  
• Supply engineer/technical staff and purchasing manager as advisors to the program  
• Work with the program team to identify and prioritize product and process-based problems  
• Provide access to internal training and quality manuals  
• Share costs of technical assistance to SMEs  
• Provide credit line guarantee or cost-share financing for an equity fund to support participating SMEs | • A tiered market structure that responds to QCD requirements  
• A pool of SMEs that meet corporate performance requirements  
• Supplier financing through donors and development organizations  
• Assistance to upgrade the capability of local suppliers |
| Host government | • Commit to making policy and regulatory changes to create a conducive environment for SMEs, particularly those related to tax, customs duty, labor regulations, bank policy, and land ownership regulations  
• Create or strengthen financial and non-financial incentives directed toward SMEs that provide training to their workers  
• Provide cost-share financing required for technical assistance through national program to promote SME-corporate linkages | • Development of SMEs in target industry with direct participation by multinationals  
• A favorable environment to attract other multinational investments  
• Employment creation in value-added sectors |
| Government or donor organization | • Finance the initial design of the program  
• Initiate dialogue between the main partners  
• Negotiate with the host government for policy/regulatory changes, and program financing issues  
• Provide overall program coordination  
• Provide cost-share financing required for technical assistance  
• Create and oversee credit line or equity fund for SMEs through local financial institutions | • Alternative sources of project finance  
• Sustainable SME development program to achieve the objective of poverty alleviation |

is designed to solve product- and process-specific problems related to the QCD requirements of multinationals. At the same time, special attention is given to ensure that these interventions also deal with more general constraints faced by local SMEs.

As most multinationals adhere to international standards such as ISO and QS, the performance expectations of participating SMEs would need to meet or exceed most international norms. Meeting such standards often opens up new market opportunities for SMEs. For example, most multinationals have harmonized QCD requirements that they apply across the board to all their manufacturing facilities around the world. Consequently, when an SME qualifies to supply a multinational in one geographic location, it automatically qualifies to supply the same product group in the entire supply network of that company around the world.

The following case studies show how the SME-corporate linkage approach has worked in three countries: Kazakhstan, Russia, and India.
CASE 1: ISPAT KARMET, KAZAKHSTAN

Strategic Partners
- Ispat Karmet
- International Finance Corporation
- Government of Kazakhstan

Market Situation
Ispat Karmet, a subsidiary of the LNM Group of India, is the fourth largest integrated steel company in the world. Through privatization, Ispat had purchased the fourth largest steel plant in the Commonwealth of Independent States (CIS), located in northern Kazakhstan in a town called Temirtau. A one-company town with an average annual income of US$1,360, the welfare of Temirtau’s 250,000 people is directly tied to the health of the steel plant. Ispat Karmet directly employs 67,000 workers who operate not only the steel mill but also a bakery, the local television station, the utility services, the local transportation system, and other non-steel-related activities.

Some 40,000 SMEs are operating in the Karaganda Oblast, where the steel mill is located. The market has only a few large companies like Ispat Karmet with a potential to purchase large volume of goods and services. There are virtually no medium-sized Tier 1 and 2 companies in the market to service large clients like Ispat, and the remaining market is dominated mostly by Tier 3 and 4 companies that employ fewer than 50 workers. Local SMEs face the following constraints:

- High interest rates and the lack of secure access to credit.
- Lack of extensive training in basic business, particularly in areas related to taxation and legal support.
- A weak legal system that often fails to provide legal recourse for SMEs.
- Discriminatory local law enforcement against SMEs.
- No clear definition of ownership of assets following privatization.
- An underdeveloped taxation system that fails to promote the development of private business.

Objective
Each year, Ispat Karmet purchases more than 20,000 different goods and services, worth nearly US$500 million. As part of the former Soviet production system, the steel mill continues to have strong ties with Russian and other regional suppliers of goods and services. The principal objective of the program is to direct more of Ispat’s purchases to local SME suppliers and to spin off some of Ispat’s non-core businesses to the local market.

Actions Taken
The donor, the International Finance Corporation (IFC), financed a number of technical assessment and program design missions to formulate an SME-corporate linkage program. This led to the creation of a joint Ispat Karmet and IFC SME Support Facility that seeks to expand procurement opportunities for local SMEs. The
Facility has two components: a fund to provide equity and quasi-equity finance to SMEs; and a technical assistance facility, for environmental management, management training, and training-of-trainers in technical and engineering areas to help support local SMEs. The training-of-trainer activities focus on strengthening the capability of Ispat Karmet's training center not only to deliver technical and engineering support to its own staff, but also to address a number of technical and engineering challenges facing SMEs, particularly enterprises supplying to Ispat Karmet.

In addition to the equity and quasi-equity financing available through the Facility, debt financing is made available to suppliers through an IFC-sponsored credit line already available in Kazakhstan through local banking institutions. The program introduced a US$6.9 million equity and quasi-equity facility in which Ispat Karmet held a 51 percent share and the IFC a 49 percent share. A fund manager was appointed to oversee the disbursement and management of the funding facility and the technical assistance program. Ispat Karmet committed to involving its own technical staff to provide program guidance and management as well as to participate in providing training to SMEs.

Results to Date
The structure and agenda of the IFC and Ispat Karmet Support Facility have been finalized, and the legal documents and registration of the Facility in Kazakhstan are now being completed, with an expected launch date for the Facility of mid-2002. In the meantime, the program team has already identified a number of SMEs currently supplying goods and services and with potential for expanding business with Ispat Karmet. The enterprises identified as potential beneficiaries of the program are medium-scale suppliers. It is expected that these enterprises will begin to bridge the gap in the tier structure that currently exists in the market, while acting as agents to strengthen the QCD capabilities of subsuppliers in the local market.

The Facility has identified several potential local suppliers that provide scrap and slag recovery, waste recovery, manufacturing and repair of circuit breakers, furnace repair and brick manufacturing, and machining and metal working. In addition, managers from Ispat Karmet have participated in a study tour of the Zimele Fund in South Africa, which helps local SME suppliers to Anglo-American and other multinational corporations operating there.

CASE 2: DOKA GENE, RUSSIA

Strategic Partners
- Doka Gene Technologies Company
- United Nations
- Administration of the Dmitrov District, Russian Federation

Market Situation
Russian consumers spend over 52 percent of household income on food and foodstuffs and the value of the domestic food market is nearly US$25 billion. With increases in disposable income, Russian consumers also tend to eat out more frequently and to purchase more prepared foods. The demand for frozen foods has grown at a rate of
about 30 percent annually over the past five years, with the primary consumers being working-class people with incomes from 3,500 to 10,000 rubles per month. Virtually all frozen foods are imported, including nearly all of the medium- and high-quality frozen French fries consumed in the country (Russia is the largest consumer of potatoes in the world). Global leaders in the frozen French fries business such as McCain Foods of Canada, and regional producers such as Farm Frites Aviko and Zgoda Chlednie, continue to import frozen French fries into Russia, mostly from Poland. Similarly, McDonald’s, the largest restaurant chain in the world, also imports French fries into its 57 restaurants in Russia.

Numerous attempts have been made by companies to establish potato-processing facilities in Russia to produce frozen French fries and other potato-based snack foods, without success. Factors contributing to this lack of success can, in part, be attributed to poor quality of potatoes caused by disease, improper pesticide use and poor selection of seed potatoes, large post-harvest losses due to poor handling and inadequate storage facilities, inconsistent suppliers, and other upstream factors.

In response, Doka Gene, a small but innovative Russian potato seed company, developed a hydroponics production technology capable of rapid propagation of disease-free mini tuber seed potatoes. Based on this technology, Doka Gene developed a range of potato seed varieties for commercial production. In the summer of 2000, Doka Gene approached the United Nations for support in developing a program that would effectively reduce Russia’s import dependence on one of its most valuable foodstuffs. The program was expected to create jobs in rural communities where farming is still a critical engine of economic growth.

Objectives

The program aims to use local potato seed production and commercial farming operations to meet the large demand for processed potatoes, particularly frozen French fries, from both domestic consumers and multinational companies operating in Russia. The program attempts to create a market structure conducive to attracting foreign investors into the food-processing sector and develop a local packaging and processing industry. Ultimately, the program is expected to reduce the level of import dependence and create employment opportunities in rural communities.

Actions Taken

Following the initial expression of interest by Doka Gene, a team of experts financed by the United Nations was sent to Moscow to conduct a diagnostic study to determine the viability and cost of a linkage program. To manage the problems facing the development of the potato processing industry, it was deemed necessary to create a controlled environment where it would be possible to oversee seed distribution, farm management (including the use of pesticides and fertilizers), irrigation, harvesting, post-harvest handling, storage, cleaning, and other activities leading up to the delivery of potatoes to a processing facility. This led to the conclusion that a “food park”—a self-contained area designated specifically for food processing—should be established on large plots of land where potatoes could be grown.
The United Nations program was designed to support SMEs in the agriculture and food processing industries in Russia. Negotiations with the government of the Dmitrov District led to their contributing 130 hectares of prime farming land to be used for developing the food park, commitment to provide tax incentives for companies involved in the project, and endorsements from the Ministry of Agriculture, Ministry of Industry, and Ministry of Foreign Affairs to develop the project as a national model.

Doka Gene, for its part, marketed aggressively to a number of potato processors. Test plots were developed to pilot a number of seed varieties that showed promise, based on the quality required by major potato processors and the farming conditions around the proposed food park site. The United Nations sponsored experts to undertake a market study to assess the potential demand for processed food in the Moscow area, and the formulation of a marketing strategy and a business plan to attract anchor investors to the food park.

Results to Date

The program has been able to attract the interest of a number of anchor investors in the food park. The realization of these investments will depend on the outcome of efforts to court major restaurants and institutional food service companies to serve frozen French fries from potatoes grown and processed by the food park. Test trials for several potential clients are underway, and trial plots containing both local and foreign potato varieties have been piloted for a number of local and foreign companies. Negotiations are underway with local farmers to develop planting programs to utilize selected seeds developed by Doka Gene and to introduce modern farm management practices to ensure high yields and quality. As a part of the business plan, a marketing effort is being made to develop a potato washing and cleaning facility and a package and finished goods storage facility, as well as secondary potato processors that utilize waste products from the French fry production process to fabricate potato flour, shreds, and other components of snack foods.

CASE 3: FIAT/MAGNETI MARELLI, INDIA

Strategic Partners

• Fiat/Magneti Marelli
• United Nations
• Prince of Wales Business Leaders Forum
• Automotive Component Manufacturers Association of India
• Automotive Research Association of India

Market Situation

India is the fifth largest commercial vehicle manufacturer and the third largest car market in Asia, purchasing nearly 600,000 vehicles in 1999. The automotive component industry in India is responsible for nearly US$4 billion in output and
US$417 million in exports per year, with over 60 percent of exports directed to the United States and Europe. The automotive component industry is responsible for directly generating at least 250,000 jobs.

As one of the major hubs for automotive manufacturing, India has successfully attracted investments from all the major automotive manufacturers to either manufacture or assemble cars in India. At least five "world cars" are manufactured in and exported from India. In the late 1990s, Fiat decided to make a large investment to establish an automotive assembly plant in India. This type of investment required a substantial number of automotive component manufacturers to be in place to supply locally manufactured parts and components.\(^9\)

Fiat and its principal Tier 1 supplier, Magneti Marelli, expressed concerns over the structure of the automotive component industry in the country. As is the case in other developing country markets, India has only a few Tier 1 and Tier 2 suppliers, and a large number of small Tier 3 and 4 companies (over 75 percent of all automotive component manufacturers in India are classified as small-scale enterprises).

The United Nations approached Fiat to explore the possibility of developing a joint program to strategically develop automotive component suppliers in the rubber, plastics, and metalworking industries in India. According to Fiat and Magneti Marelli, establishing a clear tiered market structure among automotive component suppliers in India was a high priority for their investment in automotive assembly to be cost-effective.

**Objectives**

The program sought to develop a high-impact demonstration program to introduce lean manufacturing concepts and to expose Tier 2 and Tier 3 suppliers to the merits of a well-structured tiered supply chain. While building up the capability of Tier 2 and Tier 3 suppliers, the program also sought to strengthen the capacity of local support institutions in their ability to provide training and consulting services to SMEs in the automotive component industry.

**Actions Taken**

To help ensure strong local support and transfer of know-how, two prominent Indian institutions in the automotive industry were invited to become partners in the program. The Automotive Component Manufacturers Association of India (ACMA) provided access to component manufacturers in India, day-to-day management of the program, and access to a well-established information infrastructure to disseminate know-how to local companies. The Automotive Research Association of India (ARAI), a leader in automotive engineering and testing, provided technical and engineering support to the program.

To address social and environmental concerns, the Prince of Wales Business Leaders Forum (PWBLF) was invited to become a partner in the program to advise SMEs on social and environmental auditing. The Ministry of Industry of the Government of India also participated in the program as a partner to provide financial support and policy guidance. Financial contributions for the program were made by Fiat, the United Nations, and the Government of India. In addition, in-kind contributions were
made by ARAI, ACMA, PWBLF and Magneti Marelli, particularly with respect to staff time, travel costs, and technical advice.

The program targeted SMEs in the western region of India (Pune and Bombay), home to clusters of automotive component manufacturers, particularly in plastics, rubber, and metalworking. Through questionnaires and one-on-one interviews, 20 SMEs were selected to participate in a nine-month intensive linkage program. Participating enterprises received the following assistance:

- Ten days of shopfloor assistance spread over six months, covering production process issues.
- Five days of classroom training on critical management issues.
- Two study tours to help benchmark the performance of participating enterprises.
- An international study tour to “Equip Auto” in Paris to expose SMEs to international standards and expectations, and to negotiate sales.
- Factory visits in France and Italy.

Results to Date

To measure the impact of the program, both qualitative and quantitative performance indicators were monitored. The program resulted in substantial impact and benefit to the participating SMEs, summarized as follows:

### Quantitative Improvements

- Faster and more efficient production: The average lead time required for production and completion of goods was reduced by 52 percent.
- Investments in people: The average number of hours of in-house training increased from 3.2 to 238 hours per month.
- Worker absenteeism declined by 39 percent.
- The use of standard operating procedures production increased from 9 percent to 62 percent.
- Space utilization improved by 25 percent.

### Qualitative Improvements

- Increased awareness of production efficiency issues.
- Improved awareness regarding the relationship between quality and production efficiency.
- Dramatic improvement in logistics.

Perhaps one of the most critical changes that took place as a result of the program was the impact that it had on management’s perspective of the labor force. Rather than viewing workers simply as hired help, management began to value workers as a company asset. Even during the short period of the program, this awareness led several of the participating SMEs to establish profit-sharing programs, social and health programs for workers, and regular gatherings between the managers and the workers and their families. Another transformation that took place was the realization by managers and
shopfloor workers that to remain competitive, continuous improvement activities must be an integral part of the day-to-day operations of a company.

By realizing productivity improvements, participating SMEs were able to expand their client base and volume of business, thus creating job opportunities, while at the same time improving the livelihood of the current staff and their families. In the end, Fiat/Magneti Marelli gained from expanding the pool of competent automotive component suppliers from which to choose, and also won the respect of companies in the automotive component industry in India for taking initiatives to assist SMEs.

CONCLUSIONS

As the three case studies illustrate, there are real opportunities for SMEs to expand their participation in dynamic world markets, both directly and indirectly, through their participation in supply chains.

To help these new arrangements succeed, donors and governments must revise their approaches. Traditional programs to assist SMEs have had disappointing results in terms of outreach, cost-effectiveness, sustainability, and impact. This has led donors and governments to search for new ways to build SME competitiveness through efforts to improve the investment climate, build markets for financial and non-financial services appropriate to the scale and needs of SMEs, and promote private firm-to-firm transactions that build SME capabilities and open their access to domestic and export markets.

This chapter presents one such approach: promoting SME-corporate linkages and strengthening SME participation in supply chains through temporary, facilitating donor interventions. The three case studies presented—in Kazakhstan, Russia, and India—highlight innovative approaches employed by corporations designed to make it easier to bridge the gap between corporate needs and supplier capabilities in developing countries. While there is no single model that works in all country situations, the examples suggest ways that donors can promote SME development in a more market-oriented way.

REFERENCES


NOTES

1 The definition of SMEs varies by country and is based on the number of employees, assets, or annual sales. Small-scale enterprises are usually defined as firms that employ between 5 and 100 workers. The upper limit for medium-scale enterprises is usually 100 to 250 employees. In this chapter, the focus is on “entrepreneurial” SMEs—dynamic, growth-oriented firms that tend to operate in the formal sector—as opposed to informal sector, “lifestyle” SMEs.

2 Snodgrass and Biggs 1996.

3 See, for example, Little, Mazumdar, and Page (1987); Snodgrass and Biggs (1996); Hallberg (2000); and Biggs (2002).

4 Business services (or business development services) include a wide range of non-financial services that can improve enterprise competitiveness, such as management and labor training, consultancy services, information, marketing assistance, and technology upgrading services.


6 They provide business services internally (for example, training their own workers on doing their own accounting, rather than hiring external providers (Riddle, 2001).

7 In developing countries, many of these programs are funded by donor agencies, and the same principles apply to donor interventions.


9 Since the late 1990s, overall demand for cars has declined dramatically and Fiat’s marketing strategies have also changed, such that the initial investment plans have been greatly curtailed. Nonetheless, Fiat continues to source about US$200 million worth of parts from India.
12. The Role of Government in Enhancing Opportunity for the Poor: Economic Mobility, Public Attitudes, and Public Policy

CAROL GRAHAM

Escaping poverty depends critically on the availability and type of opportunities accessible to the poor. Much of this book assesses the role of the private sector in providing opportunities for the poor. This chapter addresses the role of government in enhancing the ability of individuals, and in particular poor individuals, to take up such opportunities. There is much philosophical debate about the appropriate role of government in this arena. Many believe that the role of government is to make the playing field as level as possible or, more minimally, to ensure that access to opportunity is not restricted because of discriminatory factors. Others believe that access to opportunities should be tilted in favor of the poor and/or disadvantaged. Still others believe that government intervention serves as a disincentive to the poor’s own efforts to get ahead.

A similar debate pertains to the role of government in mediating outcomes. Some believe that redistribution is necessary from a social equity perspective, but assess its costs in terms of tradeoffs in efficiency. Others believe that enhancing the equity of outcomes in contexts of high levels of inequality can have very clear efficiency gains. At least, it is evident that extremely high levels of inequality are a disincentive to the poor undertaking the kinds of productive investments that will allow them to pursue opportunities in the future, such as investing in their children’s education.

Resolving these debates is well beyond the scope of this chapter, which focuses on strategies that governments can pursue to enhance the capacity of the poor to move up the income ladder. Yet, the parameters within which governments design policies are largely determined by public attitudes about these questions, and in most countries national policies reflect at least a minimal level of consensus. Over time, meanwhile,
public attitudes and the resulting policies may influence behavioral patterns and mobility rates.

For example, a common perception is that there are higher rates of social mobility—narrowly defined as people’s ability to make absolute progress up the income ladder—in the United States than in Europe. This difference is usually attributed to Americans’ strong faith in individualism, which in turn has resulted in a far less generous social safety net. While there is empirical debate on whether income mobility rates are indeed higher in the United States than they are in Europe, the belief in America as the land of opportunity persists. Roland Benabou and Efe Ok, for example, show how Americans’ strong beliefs about their prospects for future upward mobility, or POUM, result in far lower levels of support for redistribution than traditional median voter theory would have predicted. Relying on data from the Panel Survey of Income Dynamics, they show that even though the majority of Americans are well below mean income, only a minority vote for redistribution, as most believe that they will be above the mean in the future.

Attitudes can also affect mobility trends through the level of individual effort or initiative. Thomas Piketty (1995) describes how individuals with the same initial endowments and effort levels are influenced by their experiences, which then develop into persistent attitudes about their future prospects for mobility—which in turn affect their efforts. Those who consistently have bad luck, for example, eventually put forth less effort, as they come to believe that it is impossible to get ahead, a phenomenon that Piketty refers to as endogenous beliefs dynamics. It is not difficult to imagine such dynamics at play among very poor individuals with few opportunities for upward mobility.

A related issue in determining effort levels is the role of social norms and peer effects. A wide body of literature addresses the ways in which inequality patterns can be perpetuated by persistent social norms, identity, and low expectations. These norms certainly have an impact on how individuals respond to changes in social policy, and can explain unexpected lags in response to policy change. The retirement age in the United States (defined as the age of first eligibility for government-provided old age, or Social Security, benefits), for example, was lowered to age 62 in 1961; however, the majority of people did not begin retiring at age 62 until at least a decade later, as the norm had not changed. It was not until a critical mass of people began retiring later that the norm “tipped.”

Many analysts attribute the lower unemployment rates—and possibly higher rates of social mobility—in the United States as compared to Europe to the less generous safety net in the former. Yet social norms may also be part of the explanation. It may be more socially acceptable, as well as economically desirable, to rely on the safety net for a prolonged period of time in Europe than it is in the United States. The interaction between social norms and public attitudes is, no doubt, also relevant to mobility trends in developing economies, as well.

This chapter will place a particular focus on the political, administrative, and fiscal parameters that frame the design of policies to enhance the capacity of the poor to pursue opportunities. An equally important set of issues is the overall environment that
governments create for the private sector to operate: issues that range from macro-
economic and regulatory policies to the structure of labor and financial markets. While
these issues are of critical importance, they are only touched upon in this chapter, and
are discussed in greater detail elsewhere.7

The chapter will focus primarily on developing economies and on two kinds of
policies. The first are those that equalize and/or enhance opportunities. These include
investments in human capital and social insurance systems that reward extra effort and
occupational mobility. The second protect those who are unable to take up new
opportunities—or those who fail, having taken risks to seek out new opportunities,
such as social safety nets and other social assistance policies. An additional, and more
novel, focus of the chapter is the role of public attitudes in setting the parameters for
government efforts to level the playing field and/or to tilt it in favor of the poor.

The chapter discusses policies that are essential to enhancing the ability of the poor
to take up opportunities, as well as a separate set of policies that may play an important
supporting role, depending on the context. It will then explore the role of public atti-
tudes in setting parameters, parameters that are also framed by administrative capacity
and fiscal constraints. The aim of the chapter is to describe the parameters that frame
different governments' choice of policies in this arena, rather than to provide a detailed
analysis of the costs and benefits of particular policy choices.

POLICIES TO ENHANCE OPPORTUNITY AND REDUCE INSECURITY:
WHY GOVERNMENT POLICY?

Governments have a wide range of policies at their disposal to enhance the mobility
of the poor. What policies are chosen will depend to a large extent on public attitudes,
and whether the underlying objective is to level the playing field, to tilt it in favor
of the poor, or to simply enhance the capacity of the private sector to operate as
efficiently as possible. Even if the latter is the primary objective, there are a number
of policies that governments can and should implement to maintain a labor force that
is competitive in an open economy. A complementary set of policies is also necessary
to limit the costs associated with macroeconomic volatility triggered by exogenous
shocks, such as spillover effects in capital markets.

The limited data that we have on mobility rates in the new market economies sug-
gest that there is a great deal of movement up—and down—the income ladder; much
more movement than is typical in developed economies. While large numbers of poor
move out of poverty in any given period, equally large numbers of middle income
or near poor individuals are vulnerable to falling into poverty. A recent study in
Indonesia, for example, found that while roughly 20 percent of the population was
below the poverty line at any one point during a three-year period, 50 percent of the
population experienced a poverty spell during the period.8 Our own data on relative
mobility from Peru for 1991–2000, meanwhile, shows that while a surprising 5 percent
of those in the poorest quintile rose all the way up to the wealthiest quintile during the
period, an equally surprising 11 percent of those in the fourth quintile fell all the way
down to the first.9 In other words, there are rags to riches stories, but also riches—or
more accurately middle strata—to rags stories.
Not surprisingly, these high levels of volatility have effects on the perceptions and attitudes of respondents. In repeated household surveys in Peru during 1991-2000, a surprisingly large share (44 percent) of respondents with the most upward income mobility reported that they were worse off. Household surveys in Russia during 1995-99 got even more negative results, with 71 percent of upwardly mobile respondents reporting that they were worse off (Figure 12-1).

What explains these negative perceptions? In Peru, the frustrated achievers had average income levels but were more urban and older than non-frustrated upwardly mobile respondents. In Russia, they had slightly lower than average income—and also more income volatility—than their counterparts who were more content. For the most part, they were not the poorest in the sample, but rather tended toward the middle of the distribution. In Peru, while poorer respondents were much more likely to answer that their economic condition was unchanged, those in the middle were much more likely to say that it was worse. In a region-wide public opinion survey of Latin America, we found that respondents who were more satisfied with their lives were, on average, more likely to favor the market and to be satisfied with democracy.

The surveys in Russia yielded similar findings. In both Russia and Peru, the frustrated achievers were less satisfied with their jobs and more critical about their economic situation vis-à-vis others in their country. In all our surveys, fear of being unemployed in the future made respondents significantly less satisfied with their lives, with the market, and with how democracy was functioning.

High levels of frustration or unhappiness about relative differences, meanwhile, may eventually lead to less individual initiative and effort, or to non-optimal economic decisions in the future, or both. For example, under certain circumstances, individuals’ concern for relative income differences can lead them to opt for conspicuous consumption—rather than making more “rational” investments in things such as their children’s education—to demonstrate wealth status. Alternatively, such concerns can motivate risky behavior, such as gambling, to enhance status through wealth gains at the margin. A number of studies by psychologists, meanwhile, find that “happier” individuals in period one (controlling for initial endowments and conditions) earn higher incomes in future periods than do less happy individuals. This does not bode well for our frustrated respondents.

One of the trends in the global economy that is both driving these trends and in part helps explain the frustration and insecurity expressed by our respondents is changing rewards to education. The implementation of market policies and in particular trade liberalization has brought an increase in the rewards to skilled and educated labor. Although traditional theory would have predicted that open trade would reward unskilled labor, which is in ample supply in Latin America, the greatest rewards have gone to skilled labor, which is scarce.

As Figure 12-2 shows, during the past decade returns to higher education in Latin America have risen far faster than returns to secondary and primary education. During the 1960s and 1970s, a high school education in Latin America virtually assured a stable job, often in the public sector, as well as a middle-class—indeed, fairly privileged—standard of living. By the 1990s, however, a high school degree was much less valuable. Many public-sector jobs had disappeared, and the ones that remained were less desirable.
Figure 12-1. Perceived Past Mobility and Actual Income Mobility, Peru and Russia.
Source: Graham and Pettinaro (2002).
A related trend in Latin America is top-driven inequality: vast wealth among those at the top of the distribution relative to the rest of society, where income distribution is more equal. According to an Inter-American Development Bank study by Miguel Szekely and Marianne Hilgert, the richest 10 percent of individuals in many Latin American countries earn roughly 3 times what those in the next decile earn, compared with a roughly 1.5 to 1 ratio in the United States.12

One cause of top-driven inequality is the rising wage premium to educated workers. Another may be a possible increase in wealth at the top, as more open capital markets enhance opportunities for high returns. In addition, taxes on mobile capital are probably declining, while in developing countries, shallow financial sectors and underdeveloped capital markets may be limiting investment opportunities for small savers and borrowers. This combination of trends is quite likely to underlie some of the frustrations that we find, as well as limit the opportunities of the poor—and near poor—to take up new opportunities. While our evidence is primarily limited to Latin America, there is reason to believe that analogous trends also occur in other middle-income developing countries that integrate into the world economy.

The first set of policies that we propose below—which we label “must do” policies—are aimed at enhancing the capacity of the poor and the near poor to take up new opportunities, as well as protect them from the high costs of income losses associated with macroeconomic volatility and with changing rewards to different economic sectors and levels of education. The second set of policies—which we label “can do”
policies—are more varied and more context-dependent. They also require more dedicated government attention and willingness to invest in this arena.

"MUST DO" POLICIES

Three sets of policies could reduce insecurity and enhance the opportunities of both the middle strata and the poor. The first of these is more broadly available social services, including education policies that make obtaining jobs in the high-technology, high-skill economic sectors a more attainable objective for a broader section of society. The second is removing the distortions in markets and in public policies that block the productive potential of low-income groups. We include excessive levels of inequality among these distortions. The third is better safety nets and other forms of unemployment insurance.

The first and most obvious way to enhance the mobility and opportunity of both the poor and those in the middle-income strata is improving access to good quality and higher levels of education (beyond the secondary level), including vocational and technical education. While the long-term benefits of such a policy shift are evident, it will take a long time before the policy change yields results, and it will take sustained political commitment, institutional development, and substantial resources to implement and sustain it.

In addition, the effects of education on mobility seem to manifest themselves over the long rather than in the short term. As the chapter on income mobility by Gary Fields and co-authors in this volume demonstrates, education does not seem that important to short-term (one-to-three year) mobility patterns, while other variables, such as initial income and occupational changes, seem to play much more of a role. Yet it is precisely education that influences these variables in the long term. Virtually all the studies of long-term mobility in the United States, as well as a number of studies in Latin America, show that education—and in particular good-quality education—is replacing family background as the primary determinant of intergenerational mobility.

Fundamental to delivering more widely available higher quality and level education is a more comprehensive social contract for the delivery of essential social services in general. There is wide debate about the merits of targeted social welfare policies versus more widely available ones in the advanced economies, for example, with those in favor of the latter arguing that tightly targeted policies cannot sustain the political support necessary to preserve their public funding.

In a number of developing countries, the increased targeting of public social expenditures and welfare policies that accompanied these shifts has been very effective at reducing absolute poverty, particularly in times of fiscal austerity. At the same time, globalization has led to shifts in the rewards to different education and skill cohorts, while the size and scope of public services have shrunk. These changes have led to a perception, and often a reality, of increased insecurity for those in the lower middle and middle of the income distribution, in the face of inadequate social insurance. This insecurity may be one of the explanations for the frustrations of the upwardly mobile respondents in our surveys.
Without reversing what has been achieved on the poverty reduction front, it may be necessary to revisit the debate about targeting, which in recent years has emphasized focusing public social expenditures on the poorest sectors. At least some targeting is still desirable in most developing economy contexts, where public resources are limited and a great deal of effort has been made in recent years to establish fiscal stability. Against the backdrop of these constraints, further strategies must proceed in a manner that aims toward crafting a broader and more politically sustainable social contract, which includes middle-income groups as well as the poor. The nature and extent of that contract will, of course, take time to become evident and will vary across countries, including the extent of the role that is played by the private sector.

In addition to supply-side policies, there may also have to be an effort to address the demand side. Inequality can be perpetuated by persistent social norms, identity, and low expectations. In some societies, where the poor have no tradition of reaching higher-level education, there may indeed be a need for policies to educate and encourage low-income people to make new kinds of investments in their children's future. Without addressing both the demand and supply sides of the education equation, it will be very difficult for any one set of policies to break the strong intergenerational determinants of educational achievement, which in turn is critical to mobility over the long term.

The second set of policies must address existing distortions in markets and failures in government policies. Many countries in the developing world, particularly in Latin America, have made major strides in improving their macroeconomic frameworks and reducing such distortions. In those countries in Latin America that have implemented coherent reforms (and for which we have data), the middle class is growing rather than shrinking.

Yet, as in the case of improving education systems, removing distortions alone is not enough. If poorly performing public monopolies are merely replaced with private ones, as has occurred in some countries, the outcome is likely to be persistent or even increased inequality, and few, if any, new opportunities for the poor or near poor. Given that the removal of distortions and the opening to free trade is clearly rewarding the most educated groups the most—at least for Latin America, where we have the most recent evidence—there is much margin for improving the education and skills of the poor so that they can take advantage of new opportunities that arise. As in the case of education, supply-side and demand-side policies in the labor market must also reinforce each other.

Related to this, addressing the issue of inequality should also be part of the same policy package. The high costs of excessive concentration of income and assets for economic growth have been well documented elsewhere, and a discussion of the extent and nature of these costs is beyond the scope of this chapter. Albert Hirschman's tunnel hypothesis suggests that persistent inequality—in contrast to initial changes in the distribution—can lead to broader public frustration. Our results suggest that high levels of inequality, particularly top-driven inequality, have additional costs in that they create an unachievable reference bar, which frustrates even the most upwardly mobile individuals. These frustrations, in turn, may well have effects on political support for
the kinds of market-enhancing policies that can deliver sustained growth and poverty reduction, and create a favorable environment for the private sector. As noted above, the POUH hypothesis, as explored by Roland Benabou and Efe Ok, posits that individuals with higher prospects of upward mobility are less likely to provide political support for high levels of redistribution.

There is another benefit to a more broadly held perception—as well as a reality—of enhanced equality of opportunity and a more level playing field. They are likely to result in increased and more sustainable political support for market policies and integration in the global economy. Cross-country evidence suggests that those countries that pursue market policies and integrate in the world economy achieve faster growth and generate more opportunities for upward mobility for the poor. At the same time, if the poor perceive that the playing field is level and that opportunities do indeed exist, they will be much more likely to invest in their children's education and therefore their children's ability to take up those opportunities in the future.

For a number of reasons, the primary focus of policy should be on reducing inequality of opportunity rather than on equalizing outcomes, at least in the immediate term. One reason is that equalizing outcomes tends to be much more controversial in political terms. Moreover, it requires institutional capacity that is rare in the developing economy context. Thus, redistributive policies have had a checkered record in many developing economies. That said, certainly middle-income developing countries should begin to make progress in moving from exclusive reliance on taxes that are regressive, such as the VAT, to more progressive forms of taxation, such as income tax, which most developed economies utilize. That objective will take time, however, as many countries lack the administrative capacity that is required.

A third set of policies that is essential to enhancing both opportunities and public perceptions of the existence of those opportunities is the provision of adequate safety nets. Such safety nets are needed both for those who take risks to get ahead and run into trouble, and for those who fall behind because they are unable to take up new opportunities. The absence of adequate insurance mechanisms and safety nets can themselves result in market distortions; those who are employed may seek to minimize risk and guarantee employment security through whatever mechanisms are available—even though those mechanisms may be extremely inefficient (such as excessively rigid labor laws). In addition, the insecurity caused by weak insurance mechanisms in the face of exogenously driven volatility and constantly changing rewards to labor sectors is, no doubt, one of the factors that leads our frustrated achievers to have such negative perceptions of opportunity.

Two kinds of safety nets are necessary. One is of a social insurance nature, such as unemployment insurance and other forms of social insurance, which allow workers to take risks to pursue new opportunities by protecting them from unexpected income shocks triggered by macroeconomic volatility and other exogenous shocks. The second kind of safety nets must address the needs of the poorest who fall behind, either because of low skills or because of health and other shocks that do not allow them to participate even in the low-skilled sector of the economy. While this issue has received a fair amount of attention in the past, it is usually in the context of fiscal adjustments.
It is important to develop more permanent institutions of this nature that can expand and contract as needed, and provide a buffer at times of cyclical fluctuations, during downturns caused by externally driven exogenous shocks, or both. Safety net program design reflects the objectives of policymakers and the public, and differences among them can have major effects on different groups of beneficiaries. Programs such as the U.S. welfare system, which hinge on the objective of getting the poor back to work, trade off other objectives, such as the status of poor children in general. In other words, the children of “undeserving” poor who do not go to work are much more vulnerable under a U.S.-style system, where the non-working poor risk losing their benefits, than they are under a European-style system, which provides assistance based on the number of people in poor families who need support. A risk associated with this latter type of system, however, is that it is difficult to discourage dependence on welfare.

Without making a judgment about which kind of system is better, policymakers need to be aware of the tradeoffs that exist, as well as public attitudes about these tradeoffs. In some Eastern European and former Communist economies, for example, it is much less acceptable politically to cut pension benefits than it is to cut family assistance. Some of this is, no doubt, determined by the relative weight of interest groups (pensioners both have time and are highly organized; parents of poor children are not). Some is also determined by public attitudes. Yet establishing clarity about the objectives of the program and the choices entailed will make it much easier for policymakers to navigate the political context when presenting and implementing the program.

A more general question, which must be answered by academic research rather than by public opinion polls, is what kinds of social assistance systems are feasible and sustainable in contexts of high levels of poverty and inequality. Regardless of their design and scope, social welfare systems must be implemented in the context of growth-oriented macroeconomic policies, as at best they can only complement economic growth and development in reducing poverty. Yet they can serve as important supplements to the growth process by protecting the vulnerable at times of economic downturn and, equally importantly, providing insurance from the risk of unemployment for those who take up new opportunities for upward mobility. In this latter role, they can enhance broader-based participation in the growth process. Even then, particularly in very poor contexts, there may be difficult choices about investments in children’s education versus providing protection for unemployed adults.

Focusing on the former will do much more to promote intergenerational mobility in the long term, but with a possible tradeoff that the children of today’s poor may be at risk. In addition, if the assets of the poor are eroded sufficiently, then they may be unable to send their children to school—even if it is publicly provided—because of associated costs, such as bus fares or school supplies. Thus most governments will need to strike a balance between short-term insurance policies for the working and/or temporarily unemployed poor, and long-term investments in the human capital of their children. Public attitudes in this arena will also play a role in determining the policy balance.

Public attitudes matter because implementing any of these policies entails making choices about very scarce public resources. In many developing countries and in some advanced economies, the poor are not well represented in the political debate, and the
public expenditures that are allocated priority are rarely those that solely benefit the poor. Thus optimal policy and what is feasible politically may be very different. In many cases, the policies that are most sustainable are those that benefit those in the middle as well as the poor. While this is less of a constraint in considering policies such as improvements in education systems, it poses more difficult choices when attempting to target the benefits of social insurance or social assistance, for example.

"CAN DO" POLICIES

In addition to the above policies, there are a host of other policies which can do a great deal to increase the opportunities of the poor to get ahead, depending on the country. This second set of policies, while also important, is less generic than the first set and is more dependent on the context—including administrative capacity. In addition, many of these policies can be implemented by non-government actors, either in collaboration with or independently of the government.

Lack of access to credit, for example, is typically cited as a constraint to the upward mobility of the poor. A review of the numerous studies that have evaluated the effects of micro-credit extension programs is beyond the scope of this chapter. Yet the experiences with programs to extend credit to the poor in the international financial institutions, as well as the independent efforts of organizations such as Accion International and the Grameen Bank, suggest that this is one means to help the poor take up new opportunities in the private sector. This is particularly relevant in countries that have underdeveloped or constrained financial sectors.

Vocational training—and in particular, on-the-job training—is another optional policy that can enhance opportunities for the poor. The track record of training programs tends to be mixed, but the record of training programs carried out by the private sector for workers on the job is much stronger. Governments can support such policies through subsidies for the firms that administer them, for the workers that participate, or for both. The relevance of such policies will obviously depend on the particulars of the economic situation and the extent to which vocational training is sufficient to help workers breach the gap between the skills that they have and the skills required for firms to operate in new or changing economic conditions.

A more macro-level policy intervention is the development of unemployment insurance systems. This requires far more government involvement, as well as public consensus and resources. Most work on unemployment insurance focuses on the potential disincentive effects of overly generous replacement benefits. Given the complete absence of such insurance in most developing economies, and the limited fiscal resources available to set up new insurance systems, overly generous benefits are unlikely to be a problem. More recent work finds that unemployment insurance plays an important consumption-smoothing role during spells of unemployment. This is certainly relevant to large numbers of low-income workers in developing economies. Yet most developing economies lack such systems. Chile, for example, one of the star reformers and performers in the Latin American region, introduced unemployment insurance only in 2001, and on a very limited basis. Only three other countries in the region—Argentina, Barbados, and Brazil—have unemployment insurance, and of the three, only Barbados has it on a comprehensive basis.
There are, of course, all kinds of obstacles and potential perverse incentives problems with introducing unemployment insurance in contexts of high levels of poverty and large informal economies. That said, as countries develop further economically and make strides in reducing poverty, as Chile has done, the absence of such systems can be a constraint to efficient labor markets. The absence of unemployment insurance makes it more likely that unions will bargain for job security through rigid labor laws, for example, which in the end act as a disincentive to hiring, particularly poor and unskilled workers. Unemployment insurance can also be modeled on the new, individual account-based social security programs, which would require contributions from both employees and employers and are portable across firms and sectors. This is a policy option that is relevant only to economies that have already implemented substantial macroeconomic reform and are on a stable growth trajectory, and that do not have a substantial majority of the workforce in the informal sector.

In addition, micro-level interventions such as vocational training programs and micro-credit schemes, which rely heavily on individual initiative, tend to be fairly simple to sell politically, as they are low profile. In contrast, large-scale, macro-level interventions such as unemployment insurance are likely to elicit substantial national level political debate and require the building of political consensus, as well as the marshaling of fiscal resources. The prolonged and often divisive recent debates over Chile’s unemployment insurance legislation—debates that pitted the private sector’s concerns about profits and competitiveness against labor unions concerns about worker protection—are a case in point.

Another set of policies that can encourage upward mobility are safety net or social insurance programs that reward individual initiative and effort and/or savings. Examples of these kinds of policies are social security systems that encourage individual contributions and labor market flexibility (those that are not tied to a particular employer), such as Chile’s system, and welfare systems that reward recipients who go to work (or at least do not penalize them), such as time-limited family assistance benefits (TANF) and the Earned Income Tax Credit (EITC) in the United States. TANF replaced AFDC as part of the 1996 U.S. welfare reform, while EITC was expanded. In the three years after the reform, half of the 12 million people on the welfare rolls in the United States found jobs.

The policy mix that is politically sustainable for any given country will be determined to a large extent by public attitudes about social welfare policy and redistribution, as well as about the role of public goods more generally. The following review shows how policy mixes—and outcomes—in different countries reflect deeply held public attitudes in this area, as well as how those attitudes, coupled with administrative and fiscal constraints, form the parameters within which policy is designed.

SETTING THE PARAMETERS: PUBLIC ATTITUDES AND THE STRUCTURE OF GOVERNMENT WELFARE POLICIES

Lessons from the Developed Economies

Differences in public attitudes among advanced industrial economies are reflected in the structure of their social welfare systems; these, in turn, play a major role in determining
to what extent, if any, the playing field is tilted toward the poor and access to opportunities are broadly shared. The following discussion of attitudes in the developed economies—the United States, in particular—highlights a number of issues that are generic to the debate about appropriate policies for the poor across all country contexts. These are targeted versus universal assistance; the deserving versus the “undeserving” poor; racial heterogeneity and immigration; and tradeoffs between objectives, such as discouraging dependency versus improving the lives of children and families. All these issues differ across countries and cultures. Yet they must be taken into account if the policies that are implemented are to be politically sustainable over time.

Americans and Japanese, for example, spend much lower proportions of their gross national product on social welfare than do their European counterparts in the OECD (Figure 12-3). Expenditure patterns in Japan (and other Asian countries) reflect a stronger reliance on the family as a safety net. The lower levels of welfare expenditure in the United States reflect American’s long-held attitudes about individual responsibility and opportunities for upward mobility, which contrast to Europeans’ beliefs about society’s collective responsibility for those individuals who fall behind.

These contrasts result in a higher tolerance for inequality among Americans than Europeans, as well as a much more extensive social welfare system in much of Europe. While these are generalizations that obviously do not apply to all individuals, they have been well documented in numerous public opinion surveys, and have been noted since the writings of de Tocqueville. One of the most recent papers along these lines is by Alberto Alesina, Rafael di Tella, and Robert MacCulloch, who find that, holding

Figure 12-3. Governmental Social Spending as a Percentage of GNP, 1999.
other variables constant, inequality has negative effects on the subjective well-being of all income groups in a selection of European countries, and particularly strong effects for the poor—which is what one would expect. In contrast, in the United States, the only group that is less “happy” with inequality is left-leaning wealthy people.35

We attempted a related but slightly different analysis, based on data from the U.S. General Social Survey (GSS). The cumulative database of the GSS covers 30,000 individuals for the years 1972–93.36 Controlling for the usual sociodemographic variables as well as income and education, we find that individuals who favor redistribution in the United States are, on average, less happy or satisfied with their lives than those who do not (Table 12-1).37 These attitudes are persistent, despite a fair amount of evidence suggesting that actual mobility rates in the United States and Europe are not that different.38

Public perceptions in the United States reflect a belief in high prospects for upward mobility. A surprisingly small proportion of Americans support redistribution. Forty percent of respondents in the GSS agree that the government should reduce inequalities, while 33 percent disagree. Giacomo Corneo and Hans Peter Gruner use empirical evidence for the United States and Europe, and find that those individuals who have had upward intergenerational mobility tend to oppose government redistribution of income. This finding supports the theory that past mobility experiences and attitudes interact with each other and affect longer-term trends in mobility.39 Americans also express more limited support for government responsibility for social welfare in general: lower percentages of Americans see jobs, health care, the elderly, and housing as essential government responsibilities than do Europeans (Table 12-2).40

<table>
<thead>
<tr>
<th>Table 12-1</th>
<th>Happiness and Attitudes about Redistribution U.S. 1978-98</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dep. var.: happiness</td>
<td>Coeff.</td>
</tr>
<tr>
<td>Age</td>
<td>-0.042</td>
</tr>
<tr>
<td>Age²</td>
<td>0.048</td>
</tr>
<tr>
<td>Male</td>
<td>-0.143</td>
</tr>
<tr>
<td>Black</td>
<td>-0.473</td>
</tr>
<tr>
<td>Other raceb</td>
<td>-0.022</td>
</tr>
<tr>
<td>Married</td>
<td>0.803</td>
</tr>
<tr>
<td>Education</td>
<td>0.038</td>
</tr>
<tr>
<td>Real incomeb</td>
<td>0.000</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.726</td>
</tr>
<tr>
<td>Retired</td>
<td>0.094</td>
</tr>
<tr>
<td>Equal wealthb</td>
<td>—</td>
</tr>
<tr>
<td>Pseudo-R²</td>
<td>0.043</td>
</tr>
<tr>
<td>Number of observations</td>
<td>31,817</td>
</tr>
</tbody>
</table>

Ordered logits with year dummies (coefficients not shown).
Dummies for race; omitted category is white/Caucasian.
Real income in constant 1998 dollars. When we use the log of income with the same specifications in equation 1, we get a coefficient of 0.234 and a z-stat of 11.24.
Positive response on questions whether or not the government should reduce inequality (possible answers on a 7-point scale).
Source: Author’s calculations based on U.S. General Social Survey, 1972-93.
Table 12-2 Attitudes toward Government Responsibility in the United States, Germany, Italy, and Britain

<table>
<thead>
<tr>
<th>How much responsibility does the government have for...</th>
<th>US</th>
<th>Germany</th>
<th>Italy</th>
<th>Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeing to it that everyone who wants a job can have one?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential responsibility</td>
<td>34%</td>
<td>60%</td>
<td>79%</td>
<td>55%</td>
</tr>
<tr>
<td>Important responsibility</td>
<td>37</td>
<td>34</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>Some responsibility</td>
<td>24</td>
<td>6</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>No responsibility</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Providing good medical care?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential responsibility</td>
<td>42</td>
<td>63</td>
<td>79</td>
<td>74</td>
</tr>
<tr>
<td>Important responsibility</td>
<td>36</td>
<td>32</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>Some responsibility</td>
<td>20</td>
<td>6</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No responsibility</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Looking after old people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential responsibility</td>
<td>41</td>
<td>51</td>
<td>69</td>
<td>58</td>
</tr>
<tr>
<td>Important responsibility</td>
<td>40</td>
<td>42</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>Some responsibility</td>
<td>18</td>
<td>6</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>No responsibility</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Providing adequate housing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essential responsibility</td>
<td>25</td>
<td>39</td>
<td>69</td>
<td>61</td>
</tr>
<tr>
<td>Important responsibility</td>
<td>38</td>
<td>46</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Some responsibility</td>
<td>32</td>
<td>14</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>No responsibility</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>


The U.S. welfare system was set up quite late compared to most European systems, and remains much more limited. The introduction of aid to families with dependent children (AFDC) in the 1960s was the first national-scale effort to provide assistance for the non-working poor. By the early 1990s (prior to the 1996 reform), AFDC accounted for 9.4 percent of all welfare expenditures, with over 12 million people on the rolls, a number that continued to expand, despite the sustained economic growth of the 1990s. Questions about the effectiveness of the welfare system began to increase, even among analysts sympathetic to its objectives. In the mid-1990s, President Clinton signed a major welfare reform law. The reform hinged on the objective of ending long-term dependency and getting welfare recipients back to work. Time limits of five years were imposed on welfare recipients, and AFDC became TANF: temporary assistance to needy families. At the same time, most states made efforts to make work pay.

The most important distinction that seems to underlie both the logic of the 1996 welfare reform and that of American attitudes about welfare more generally is that between the deserving poor (those working and/or disabled, the elderly, or children) and non-deserving poor (able-bodied non-working older teens and adults). This distinction has resulted in a tension between two objectives: that of getting welfare recipients back to work and that of improving the lives of poor families and children. Regardless of what position one takes on the issue of deserving versus non-deserving poor, it is clear that American public opinion is much more in favor of providing welfare support to the former than to the latter, and that Americans of all income levels—including the
poor and near poor (defined as those with incomes below 200 percent of the official poverty line)—question the effectiveness of welfare.\textsuperscript{47}

More generally, Americans are divided over the causes of poverty. Roughly half those polled by the NPR/Kaiser/Kennedy School survey in 2001 said that the poor are not doing enough to get themselves out of poverty and the other half said that circumstances beyond their control cause them to be poor. Rather surprisingly, low-income Americans are only slightly more likely to feel that poverty is caused by circumstances beyond the poor’s control.\textsuperscript{48}

Our own analysis is based on two questions in the GSS about the causes of poverty, which were asked of 1,330 respondents in 1990 only. We found that blacks, low-income respondents, and those that place themselves on the liberal (left) side of the political spectrum are more likely to say that poverty is due to lack of jobs. In contrast, only less educated respondents and those who place themselves on the conservative (right) side of the political spectrum say that poverty is due to lack of effort, while income level has no significant effects (Tables 12-3a,b).

The distinction between deserving and non-deserving poor may be a more important determinant of public support for welfare in the United States than is that between targeted and universal programs, which has received much more attention. This latter issue has caused a great deal of debate, with scholars such as Theda Skocpol making the very effective argument that unless programs are universal—or at least benefit the middle class as well as the poor—they will not be politically sustainable. She cites the growth—and seeming sacrosanct nature—of programs such as social security and Medicare, and contrasts that with the cuts to targeted welfare programs.\textsuperscript{49}

The targeting issue is particularly relevant to the developing economies.

\textbf{Table 12-3a} Attitudes about the Causes of Poverty, the United States, 1990

<table>
<thead>
<tr>
<th>Dep. var.: poverty due to lack of jobs</th>
<th>Coeff.</th>
<th>z-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.003</td>
<td>0.150</td>
</tr>
<tr>
<td>Age\textsuperscript{2}</td>
<td>-0.008</td>
<td>-0.400</td>
</tr>
<tr>
<td>Male</td>
<td>-0.279</td>
<td>-2.450</td>
</tr>
<tr>
<td>Black\textsuperscript{a}</td>
<td>0.817</td>
<td>4.240</td>
</tr>
<tr>
<td>Other race\textsuperscript{b}</td>
<td>0.474</td>
<td>1.590</td>
</tr>
<tr>
<td>Married</td>
<td>-0.043</td>
<td>-0.350</td>
</tr>
<tr>
<td>Education</td>
<td>-0.077</td>
<td>-3.650</td>
</tr>
<tr>
<td>Real income\textsuperscript{b}</td>
<td>0.000</td>
<td>-3.580</td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.389</td>
<td>0.980</td>
</tr>
<tr>
<td>Political view</td>
<td>-0.169</td>
<td>-4.030</td>
</tr>
<tr>
<td>Pseudo-(R^2)</td>
<td>0.0394</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>1,165</td>
<td></td>
</tr>
</tbody>
</table>

Ordered logit estimates.

\textsuperscript{a}Omitted category is white/Caucasian.

\textsuperscript{b}Real income in constant 1998 dollars. When we use the log of income with the same specification, we get a coefficient of -0.275 and a z-stat of -3.870.

Source: Author’s calculations based on U.S. General Social Survey, 1973–98.
A related issue is the proximity between the middle class and the poor. In theory, greater proximity and/or similarity between the middle class and the poor should translate into broader political support for redistribution in favor of the poor. Joan Nelson's work on developing economies suggests that social policies and social welfare policies that have the support of the politically relevant middle strata, as well as the poor when they have overlapping interests, are more likely to be sustainable.5

One factor that clearly affects the political economy of support for welfare across different societies is race. Americans' support for welfare is directly linked to their perceptions of the racial composition of poverty.51 Martin Gilens finds that the more likely that Americans are to overestimate the percent of the poor population that is black, the less likely they are to support welfare.52 A separate study by Erzo Luttmer, based on GSS data, finds evidence of "racial group loyalty": individuals increase their support for welfare spending as the share of local recipients from their own racial group rises.53 Several studies find that differences in resource allocations across states confirm the effects of these attitudes on policy.54 The issue of racial homogeneity or heterogeneity is also very relevant to attitudes about public goods and social welfare policy in the less developed economies.55

This discussion is not intended to imply that U.S. attitudes about welfare apply across countries, nor that the U.S. welfare system is a model for other countries. Nor does it imply that welfare policy is the only means that governments have to enhance the opportunities of the poor. Yet the U.S. example—for which we have a great deal of data—demonstrates the extent to which attitudes about redistribution have effects on welfare and other social policies.

### Table 12-3b  Attitudes about the Causes of Poverty, the United States, 1990

<table>
<thead>
<tr>
<th>Dep.var.: poverty due to lack of effort</th>
<th>Coeff.</th>
<th>z-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.015</td>
<td>0.71</td>
</tr>
<tr>
<td>Age²</td>
<td>-0.011</td>
<td>-0.54</td>
</tr>
<tr>
<td>Male</td>
<td>-0.017</td>
<td>-0.15</td>
</tr>
<tr>
<td>Blacka</td>
<td>-0.012</td>
<td>-1.19</td>
</tr>
<tr>
<td>Other racea</td>
<td>-0.480</td>
<td>-1.58</td>
</tr>
<tr>
<td>Married</td>
<td>0.124</td>
<td>0.97</td>
</tr>
<tr>
<td>Education</td>
<td>-0.080</td>
<td>-3.68</td>
</tr>
<tr>
<td>Base incomeb</td>
<td>0.000</td>
<td>0.06</td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.329</td>
<td>0.82</td>
</tr>
<tr>
<td>Political view</td>
<td>0.167</td>
<td>3.86</td>
</tr>
<tr>
<td>Pseudo-R²</td>
<td>0.0219</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>1,170</td>
<td></td>
</tr>
</tbody>
</table>

Ordered logit estimates.

- Omitted category is white/caucasian.
- Real income in constant 1998 dollars. When we use the log of income with the same specifications, we get a coefficient of 0.125 and a z-stat of 1.76, also not significant.

Source: Author's calculations based on U.S. General Social Survey, 1973-98.
THE DEVELOPING COUNTRY CONTEXT

An obvious problem in determining the relationship between public attitudes and politically sustainable policies is the absence of adequate data—data that are particularly rare for the developing economies. We have collaborated in the development of such a data set for Latin America. While we obviously cannot assume that lessons from Latin America will apply directly to other regions, they can help us in further developing our framework for thinking about these issues. In addition, the diversity of the 17 Latin American economies in the sample—as well as their different welfare systems—allows us further room for drawing more generally applicable conclusions.

The Latinobarometro survey covers Brazil and all the Spanish-speaking countries, with the exception of the Dominican Republic and Cuba—a total of 17 countries with approximately 17,000 observations each year; it has been conducted annually from 1997 to 2000. Unless otherwise specified, the results reported here are from the final year of the sample, 2000, which has the most complete questionnaire. Where possible, we used the entire pooled sample to check the robustness of findings. The pooled sample has the advantage of being a time series but the disadvantage that several of the most pertinent questions are not included in all the years.

The surveys vary in terms of how close to nationally representative they are, with countries like Brazil and Bolivia, with large portions of remote rural populations, posing much bigger challenges to achieving representative coverage. The surveys have an urban bias but still cover a substantial part of the rural population. In respective years of the survey, we have been able to suggest a number of questions about perceived social status, subjective well-being, and attitudes about redistribution and individual mobility.

One of the most striking findings that comes out of the Latin American data is a marked similarity between Latin American and U.S. attitudes about the causes of poverty, about redistribution, and about intergenerational mobility. When Americans (in the GSS) are asked about the causes of poverty—for example, in the question “a major cause of poverty is lack of effort by the poor themselves”—36 percent say that lack of effort is very important, while 43 percent say that it is somewhat important, and 21 percent say that it is not. When Latin Americans are asked a similar question about the causes of poverty, a surprisingly similar 36 say that poverty is due to lack of effort on the part of the poor, while 63 percent say that it is due to bad circumstances.

When we look at the determinants of attributing poverty to lack of effort, as we did in the United States, regressing a positive response on poverty due to lack of effort as the dependent variable, we find that the only significant variables are wealth and leaning to the right on the political scale (the latter is self-reported). The unemployed, meanwhile, are more likely to answer negatively (Table 12-4). As discussed above, for the United States, believing that a lack of jobs is important as a cause of poverty is negatively and significantly correlated with being on the right of the political spectrum, as well as with income, education, and being male (Table 12-3a). We do not have this question for Latin America.
A rather interesting finding is that when we include happiness in the equation on poverty being due to lack of effort, we find that happier people, on average, believe that poverty is due to lack of effort in both Latin America and the United States. While an explanation for this is beyond the scope of this chapter, one could posit that believing poverty is a phenomenon that is inflicted on people creates more distress than believing that it is a result of lack of individual effort.9

In an earlier study, we found that in Latin America those who believe that there are high prospects for future upward mobility—and believe that opportunities for equal advancement in one’s country are equally shared—are more likely to be satisfied with their lives in general.60 (The equal opportunity variable is discussed in greater detail below.) We do not have a similar prospects of upward mobility question for the United States.

When we look at attitudes about intergenerational mobility, we find remarkable similarities between the United States and Latin America. When Americans are asked about their children’s future standard of living compared to their own today, 57 percent say that their children will do better and 23 percent say that they will live the same. In Latin America, for the same question, 58 percent of respondents say that their children will live better while 26 percent say the same. When respondents in Latin America are asked about their own economic status in the future, 41 percent say better and 42 percent say the same. Unfortunately, we do not have a comparable question for the GSS.

A rather striking contrast occurs when respondents are asked about their own status compared to that of their parents. In the United States, 64 percent of respondents say that they live better, 21 percent say the same, and 15 percent say worse. In Latin America, in contrast, only 16 percent of respondents say that they live better than their parents, while 21 percent say the same, and 59 percent say worse. This is not
a surprise, given the economic crises of the 1980s, the difficult adjustments that were necessary in the late 1980s and early 1990s, and the facts that concerns about stable employment remain high and real wages are still not back to their 1970s levels in many countries in the region.

Do attitudes about intergenerational mobility affect attitudes about redistribution? In our analysis of GSS data for the United States, attitudes about neither parents' standard of living nor children's standard of living has a significant effect on attitudes about the government's role in redistribution (EQWLTH). For Latin America, for the 1998 Latinobarometro survey only, we have a question about what the country needs most to get ahead: productivity growth or more redistribution. When we use the response to that question as the dependent variable and include views about intergenerational mobility on the right-hand side, the only significant variable is wealth level, which is not surprisingly positively correlated with supporting productivity.\(^6^1\)

When one looks at mean levels of support for productivity versus redistribution region-wide, however, a surprisingly high 53 percent of respondents support productivity over redistribution. Across countries, mean levels of support for productivity—that is, for more economic growth—are higher in poorer and more unequal countries (Figure 12-4). Within countries, it is wealthier people who, on average, are more likely to support productivity over redistribution, which is what one would expect.

We explain the differences across countries in two ways. The first is the timing of reform. Most poor and unequal countries in the region (mainly in Central America) are earlier along in the process of market reform; most citizens recognize the need to establish sustainable growth as a prerequisite to getting ahead, particularly given the

---

**Figure 12-4.** Productivity Supporters versus GDP per Capita, Latin America, 1998.
Source: Graham and Pettinato (2000).
region's experience with high levels of debt and inflation and stagnant growth. Secondly, these same countries have very weak state institutions and underdeveloped social welfare structures. Thus the average citizen is probably quite skeptical about redistributive policies' being either fair or efficient. 62

The year 2000 survey included a question about how equally opportunities are shared in the respondent's particular country. When we include a dummy for being poor (below 0.45 on the wealth index for the sample), it has significant and negative effects. In other words, the poor are less likely to believe that opportunities are equally shared than are the non-poor—which is not surprising. The more educated, meanwhile, are also less likely to believe that opportunities are equally shared, while the wealthy are more likely to believe that they are (Table 12-5). When we include attitudes about intergenerational mobility in the equation, we find that respondents' evaluation of their situation compared to their parents has no effect, but that believing that one's children will live better is significantly and positively correlated with believing opportunities are equally available.

**Attitudes and Outcomes in Latin America**

At a very general level, attitudes about redistribution in Latin America seem remarkably similar to those in the United States and therefore quite different from those in the average European country with a more developed social safety net and broader provision of public goods such as health and education. While the explanations for the similarities in attitudes in Latin America and the United States are no doubt complex, it is plausible that some of the strong faith in individual effort over state redistribution

### Table 12-5 Attitudes about Equal Opportunity, Latin America, 2000*

<table>
<thead>
<tr>
<th>Dep. var.: opportunities are equally shared</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coef.</td>
<td>z-stat</td>
<td>Coef.</td>
<td>z-stat</td>
</tr>
<tr>
<td>Age</td>
<td>-0.023</td>
<td>-3.29</td>
<td>-0.023</td>
</tr>
<tr>
<td>Age²</td>
<td>0.000</td>
<td>2.50</td>
<td>0.000</td>
</tr>
<tr>
<td>Year of education</td>
<td>-0.012</td>
<td>-2.21</td>
<td>-0.007</td>
</tr>
<tr>
<td>Male</td>
<td>0.022</td>
<td>0.58</td>
<td>0.023</td>
</tr>
<tr>
<td>Married</td>
<td>0.048</td>
<td>1.13</td>
<td>0.045</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.015</td>
<td>0.19</td>
<td>0.004</td>
</tr>
<tr>
<td>Retired</td>
<td>0.125</td>
<td>1.36</td>
<td>0.125</td>
</tr>
<tr>
<td>Wealth</td>
<td>0.475</td>
<td>4.68</td>
<td>—</td>
</tr>
<tr>
<td>Poor = b</td>
<td>—</td>
<td>—</td>
<td>-0.131</td>
</tr>
<tr>
<td>Kids std. living³</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Parent std. living³</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.0312</td>
<td>0.0005</td>
<td>0.0378</td>
</tr>
<tr>
<td>Number of observations</td>
<td>14,799</td>
<td>14,799</td>
<td>12,974</td>
</tr>
</tbody>
</table>

*Ordered logit estimations with country dummies (not shown).

³Dummy for being poor, defined as below 0.45 on the wealth index.

²Score on the question of "will your children live better than you."

*Score on the question of "do you live better than your parents."

Source: Author's calculations based on Latinobarómetro data, 2000.
in Latin America comes from a very weak tradition of effective redistribution in the region, with countless attempts in the past being captured by relatively privileged interest groups at the expense of the very poor.\textsuperscript{63}

The record was not only regressive but also inefficient, with many countries spending high percentages of their public expenditures on the social sectors, but with very little to show for it in terms of poverty reduction. In addition, misallocated public expenditures were often accompanied by unsustainable fiscal deficits, resulting in high levels of inflation and high levels of external debt, further discrediting state redistribution in many countries.

The weak record of redistribution in large part comes from weakness in public sector institutions and underdeveloped social insurance systems. Thus in many countries, such programs were piecemeal or sector-specific, and led to general tax revenues being redistributed to some sectors of the labor force (usually a minority) and not to others. Organized workers in the public sector and those in strategic industrial sectors, such as minerals or oil, were the most likely to have coverage. While workers in these sectors are not privileged by industrial country standards, they are relative to the majority of workers in their own countries, particularly those in the informal sector.

The outcome of such policies, meanwhile, tended to exclude the poor rather than enhance their mobility, and often distorted the functioning of markets as well. In Brazil, for example, only 18 percent of the poorest income groups—which account for over 40 percent of the population—are covered by the public social security system, and receive only 3 percent of the benefits that the system pays out. In Venezuela, personnel expenditures absorb over 90 percent of the education budget, reflecting the power of the teachers’ unions there, and leaving very little for expenditures on other essentials, such as supplies and infrastructure.\textsuperscript{64}

Little wonder, then, that two trends dominated the debate on social expenditures in the region in the 1980s. The first was a move toward more targeted policies and programs and away from social insurance for formal sector workers.\textsuperscript{65} The second, in part an outgrowth of the first, was the introduction and proliferation of the social funds of the 1980s and 1990s—lean, semi-autonomous social programs that allocated funds based in large part on the demand of local organizations and municipalities. Some of these funds, although not all of them, played an important role in cushioning the impact of adjustment policies for poor—although not the poorest—groups.\textsuperscript{66}

With almost two decades of experience with both targeted programs and social funds, there is still strong consensus on the need to target the limited public funds that are available for social sector spending to the neediest sectors. There is less consensus on the merits of social funds. Programs that operate largely outside the mainstream public sector institutions and allocate expenditures according to demand-based criteria (that is, priorities that the beneficiaries themselves identify), while having a number of advantages, have limited capacity to target and a great deal of heterogeneity in outcomes. In addition, such programs usually are not part of a broader social contract, and cannot replace the more broadly based role that public goods such as education play in enhancing the opportunities of the poor, and that social assistance and insurance systems have in protecting them from eroding their productive assets during difficult economic times.
Given the extent of need and limited public funds, some targeting will always be necessary. On the other hand, too much emphasis on targeting in the context of high numbers of eligible poor can result in the very poorest being left out. This is a particular concern if the program uses demand-based criteria in the allocation process, as the experience of Trabajar, a public works program in Argentina, suggests. A recent study of an effort to limit Trabajar funds found that it was the poorest recipients that ended up losing program support, as the more vocal demands of more organized, less poor groups were more successful at accessing increasingly limited funds. In other words, effective targeting of the poorest in the context of high levels of eligible poor requires sufficient funds.

Public attitudes about redistribution, the causes of poverty, and opportunities for mobility will be critical to developing such a social contract—and more permanent forms of social assistance—in most countries in the region. Differences among individual Latin American countries will also result in distinctions among the policies that are adopted. These differences are in part reflected in the level and composition of public expenditures, which vary a great deal among countries. There are countries in the region with a long tradition of social welfare and social insurance systems. For the most part, these programs are still largely intact, even if they have been altered substantially to incorporate concerns about efficiency, as well as new thinking about the role of the private sector, about individual contributions, and about targeting expenditures on the neediest groups. The differences are well reflected in different country experiences, as described below and summarized in Table 12-6.

<table>
<thead>
<tr>
<th>Country</th>
<th>Social spending as percent of GPD 1990–91</th>
<th>Social spending as percent of total public expenditure 1990–91</th>
<th>Social spending as percent of GPD 1990–91</th>
<th>Social spending as percent of total public expenditure 1990–91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>17.7</td>
<td>62.2</td>
<td>65.1</td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>6.0</td>
<td>25.8</td>
<td>44.2</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>19.9</td>
<td>59.5</td>
<td>59.1</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>13.0</td>
<td>60.8</td>
<td>65.9</td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>8.1</td>
<td>29.7</td>
<td>38.2</td>
<td></td>
</tr>
<tr>
<td>Costa Rica &amp;d</td>
<td>18.2</td>
<td>64.4</td>
<td>65.1</td>
<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>4.5</td>
<td>36.9</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>5.4</td>
<td>21.9</td>
<td>26.5</td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>3.3</td>
<td>29.8</td>
<td>42.1</td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td>7.8</td>
<td>33.1</td>
<td>31.9</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>6.8</td>
<td>41.6</td>
<td>52.9</td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td>10.3</td>
<td>38.3</td>
<td>35.6</td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>18.6</td>
<td>40.0</td>
<td>39.9</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>3.0</td>
<td>39.9</td>
<td>47.1</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>2.3</td>
<td>16.7</td>
<td>40.9</td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>18.7</td>
<td>62.3</td>
<td>69.8</td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>9.0</td>
<td>33.9</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td><strong>Average for the region</strong></td>
<td><strong>10.1</strong></td>
<td><strong>41.0</strong></td>
<td><strong>47.2</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Figures for 1990–97 are based on 1996 results only, due to lack of information.
*Figures for 1990–91 are based on 1991 results only, due to problems with hyperinflation in 1990.
*Simple average of the figures of the countries.
Chile has perhaps gone the furthest of any country in the region in reforming its social sector institutions. It has revamped its social security, education, health, and social welfare institutions in a manner that targets the poor and includes a role for the private sector, with different degrees of success, depending on the sector. As a result of its high degree of pre-existing administrative capacity in the social sectors, coupled with the targeting efforts, Chile's generally successful record in protecting the welfare of the poorest of the poor during the extensive economic crisis of the early 1980s—both through public works employment programs and through targeted mother and child nutrition programs—has received a great deal of positive attention. Attempts have been made in a number of countries to copy different elements of its social sector reforms.68

Uruguay and Costa Rica are two other countries noted for their social welfare structures. While Uruguay has not gone as far as Chile in terms of targeting expenditures and introducing private sector involvement and choice into the delivery of services, it has introduced individual accounts in its social security system, as well as a major education reform with some elements of decentralized management. Costa Rica, meanwhile, continues to maintain a more universally based system, but in recent years has been confronted with issues of declining quality of services because of an inability to keep up with the scale and scope of demand for services. Argentina also has had a fairly well developed social insurance system for decades, but it is heavily tilted toward the middle strata rather than the poor.69

The countries that developed social insurance systems early on share a common feature: they have a great deal of racial homogeneity. This is noteworthy, considering the discussion above about racial and group loyalty and welfare expenditures in the United States, as well as the more general effects of ethnic and racial fragmentation on spending on public goods. Their experience contrasts quite sharply with many of the Andean countries, Brazil, and Mexico, where the indigenous population constitutes a much higher proportion of the total and where the societies are racially and geographically fragmented.

Brazil, Mexico, and the Andean countries are also countries with very limited safety nets and high levels of inequality and poverty. At a very general level, those countries that have the most developed social welfare systems in the region are much more like the homogenous countries of Europe, and those that do not are more like the racially and geographically heterogeneous United States.

These are very broad generalizations. Yet they find an echo in different attitudes about redistribution among the countries in Latin America. Argentina, Chile, and Uruguay, for example, are among the strongest supporters of redistribution in the region (Figure 12-4). And all three countries have lower than average mean scores for believing that opportunities are equally shared (Table 12-7). In other words, publics in these countries are more likely than the average Latin American respondent to support some sort of government role in redistribution and/or the provision of a safety net.

In addition, only two countries in South America—Argentina and Brazil—have unemployment insurance systems, at least as traditionally defined, and of the two, only Brazil's provides significant coverage.70 Chile passed unemployment insurance
Chile has perhaps gone the furthest of any country in the region in reforming its social sector institutions. It has revamped its social security, education, health, and social welfare institutions in a manner that targets the poor and includes a role for the private sector, with different degrees of success, depending on the sector. As a result of its high degree of pre-existing administrative capacity in the social sectors, coupled with the targeting efforts, Chile's generally successful record in protecting the welfare of the poorest of the poor during the extensive economic crisis of the early 1980s—both through public works employment programs and through targeted mother and child nutrition programs—has received a great deal of positive attention. Attempts have been made in a number of countries to copy different elements of its social sector reforms.

Uruguay and Costa Rica are two other countries noted for their social welfare structures. While Uruguay has not gone as far as Chile in terms of targeting expenditures and introducing private sector involvement and choice into the delivery of services, it has introduced individual accounts in its social security system, as well as a major education reform with some elements of decentralized management. Costa Rica, meanwhile, continues to maintain a more universally based system, but in recent years has been confronted with issues of declining quality of services because of an inability to keep up with the scale and scope of demand for services. Argentina also has had a fairly well developed social insurance system for decades, but it is heavily tilted toward the middle strata rather than the poor.

The countries that developed social insurance systems early on share a common feature: they have a great deal of racial homogeneity. This is noteworthy, considering the discussion above about racial and group loyalty and welfare expenditures in the United States, as well as the more general effects of ethnic and racial fragmentation on spending on public goods. Their experience contrasts quite sharply with many of the Andean countries, Brazil, and Mexico, where the indigenous population constitutes a much higher proportion of the total and where the societies are racially and geographically fragmented.

Brazil, Mexico, and the Andean countries are also countries with very limited safety nets and high levels of inequality and poverty. At a very general level, those countries that have the most developed social welfare systems in the region are much more like the homogenous countries of Europe, and those that do not are more like the racially and geographically heterogeneous United States.

These are very broad generalizations. Yet they find an echo in different attitudes about redistribution among the countries in Latin America. Argentina, Chile, and Uruguay, for example, are among the strongest supporters of redistribution in the region (Figure 12-4). And all three countries have lower than average mean scores for believing that opportunities are equally shared (Table 12-7). In other words, publics in these countries are more likely than the average Latin American respondent to support some sort of government role in redistribution and/or the provision of a safety net.

In addition, only two countries in South America—Argentina and Brazil—have unemployment insurance systems, at least as traditionally defined, and of the two, only Brazil's provides significant coverage. Chile passed unemployment insurance
### Table 12-8  Fear of Unemployment, Latin America, 2000

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>0.617</td>
<td>0.394</td>
<td>914</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.656</td>
<td>0.343</td>
<td>955</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.677</td>
<td>0.381</td>
<td>829</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.709</td>
<td>0.333</td>
<td>1,049</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.661</td>
<td>0.371</td>
<td>818</td>
</tr>
<tr>
<td>Chile</td>
<td>0.598</td>
<td>0.375</td>
<td>933</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.752</td>
<td>0.315</td>
<td>1,084</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.545</td>
<td>0.375</td>
<td>768</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.685</td>
<td>0.352</td>
<td>878</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.643</td>
<td>0.372</td>
<td>877</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.561</td>
<td>0.355</td>
<td>979</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.720</td>
<td>0.344</td>
<td>799</td>
</tr>
<tr>
<td>Panama</td>
<td>0.612</td>
<td>0.362</td>
<td>895</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.725</td>
<td>0.348</td>
<td>564</td>
</tr>
<tr>
<td>Peru</td>
<td>0.738</td>
<td>0.310</td>
<td>944</td>
</tr>
<tr>
<td>Uruguay</td>
<td>0.546</td>
<td>0.367</td>
<td>569</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.732</td>
<td>0.355</td>
<td>1,032</td>
</tr>
<tr>
<td>Total</td>
<td>0.661</td>
<td>0.361</td>
<td>14,887</td>
</tr>
</tbody>
</table>

Note: Mean country scores on a question asking how concerned respondents were about losing their jobs, with "not at all concerned" having a value of 0, "a little concerned"/0.3, "concerned"/0.6, and "very concerned"/1.0.

Source: Author's calculations based on Latinobarometro data, 2000.

Social insurance systems are the exception, and at the same time there is a great deal of poverty. In most countries, the nature of the social contract still needs to be established, including reaching agreement on how to finance it, which will ultimately entail redistribution from some sectors to others.

Political and administrative constraints are clearly an issue in thinking about policies that can enhance the ability of the poor to take up new opportunities. To date there has been much thinking about the debate over targeted versus more universal services. In the developing countries, given the extent of need and limited public funds, some targeting will always be necessary. The political choices that need to be highlighted may not always be between targeted and universal services. Rather, they may revolve about such issues as the near poor and the poor, and the poor and the poorest; about investments in children versus support for the adult poor; about the working poor versus the non-working poor; about centrally versus locally financed and implemented policies; about the formal versus the informal sector. Resolving these issues will ultimately be key for developing countries in their ability to graduate from an emphasis on externally funded social safety nets to one on social welfare structures that are part of a domestically financed social contract.

Very few developing countries have resolved such issues, and this chapter only suggests ways of thinking about them. What is clear is that from country to country, more than the particular socioeconomic and institutional structures that prevail will play a determining role in the process; public attitudes about these issues matter deeply, as well. Dismissing or neglecting deeply entrenched public attitudes is likely to result
in policies that are undesirable or unsustainable, or both. This does not mean that new approaches cannot be introduced, or that public opinion cannot change over time. But strategies for implementing policy change must not only address the constraints posed by administrative capacity; they must navigate the constraints posed by public opinion and attitudes, as well.

The choice of safety net and other social assistance policies is often dictated by the capacity of public sector institutions. In countries with very weak public institutions and very little administrative capacity, policies that rely on very little central level administration and more on local institutions and organizations (including non-government organizations) to both identify and implement projects—the so-called demand-based or social fund approach to social assistance—are usually more appropriate. There is clearly a tradeoff, however, as such policies are much less effective at targeting particular groups, particularly the poorest, who are the least likely to present viable project proposals to demand-based programs. This approach is also less well suited to providing uniform coverage of basic public services—education in particular—that are key to enhancing the opportunities of the poor.

Thus, while decentralized, demand-based programs have a great deal of appeal in many contexts, and often have positive externalities in terms of local capacity building and the creation of local level stakeholders, they usually cannot provide a fail-safe safety net. This must be kept in mind if protecting the most vulnerable is a major objective. That said, in many contexts where central level administrative capacity is preclusive to other approaches, this may be the only feasible alternative, at least in the short term.

In addition, if the political context is hostile to redistribution or to assistance strategies, then this model also has the appeal of demonstrating that those who receive assistance must take initiative and contribute substantial effort in order to receive it, which may encourage individual effort and indirectly enhance mobility. Another advantage is that the devolution of responsibility for the program from the central to the local level can often help diffuse the political debate and political opposition. This was the case in the United States in 1996, when states were given block grants and a great deal of flexibility in setting the rules for TANF.

Over the longer term, the demand-based model can be further developed to create greater linkages with the mainstream public sector, which can meet institution-building objectives, as was attempted in the second stage of Bolivia’s Emergency Social Fund. As always, this approach also entails tradeoffs, as the greater the linkages with the mainstream bureaucracy, the less agile and flexible the assistance program is likely to be.

The alternative model for welfare policy is a centrally implemented program within the mainstream public sector bureaucracy, as is the case with social welfare policies in Chile, Costa Rica, and Uruguay (even though many of them have local-level components). This may be the most effective approach if targeting the poorest is an objective, as Chile’s experience in the 1980s demonstrates. Administrative capacity is a prerequisite for this kind of approach, however. There are also other advantages from the perspective of reducing poverty and enhancing opportunity. In addition to targeting, it is possible to coordinate various kinds of assistance, such as tying means-tested assistance
for low-income mothers to visits to the health posts for their children. It is also more possible to guarantee uniformity and regional balance in assistance policies, although these objectives are, of course, contingent on sufficient funding and political commitment, in addition to administrative capacity. With demand-based, locally driven approaches, heterogeneity in outcomes is a given. At the same time, as noted above, the latter may have an advantage in circumventing or avoiding national level political controversies.

A centrally driven approach is also easier to maintain on a permanent, as-needed basis that can respond to macroeconomic cycles and/or external shocks. Coordination at the central level makes it more likely that economic downturns can be foreseen more easily and planned for. Chile’s recent implementation of public works employment, for example, called for the cooperation and participation of various ministries, as well as coordination with the private sector. This would be more difficult—although not impossible—to achieve with a demand-based and semi-autonomous assistance fund.

While administratively lean and decentralized programs are better suited to “hostile” political environments, centrally based assistance programs—which are usually larger—require at least a minimum degree of political support, as they are much more likely to be the focus of national-level political debates. It is therefore no surprise that the countries that have the most developed systems of this kind also have political cultures that emphasize at least some degree of social solidarity and collective responsibility for assisting those that fall behind. They are also, as noted above, fairly homogenous in terms of race, and tend to be smaller in geographic terms.

Two integrally linked and important issues are the structure of political institutions and the organization and/or relative strength of particular interest groups. In a few contexts, executives have a great deal of freedom to implement changes in the social welfare arena. In most countries, however, the public usually has strong views about social welfare and social sector policies such as health and education. And unlike macroeconomic reforms, which can often be implemented by executive degree, social sector and social welfare reforms usually require legislative approval. Thus the nature and relative balance of political institutions will play a role in determining the kinds and scope of reforms that are feasible. In contexts where the legislature is relatively strong, building a broad base of support for reforms—and/or a more incremental and decentralized approach—may be necessary. Related to this is the role of interest groups. In countries where organized labor or other such interest groups are very strong, it will be very difficult to dismiss their interests—and claims on social welfare benefits—in any kind of centrally driven, comprehensive reform initiative, limiting the capacity of benefits to serve the poor.

How then to navigate deeply entrenched attitudes about social welfare policy? As a starting point, it is clear that they cannot simply be dismissed. If attitudes favor the private sector, then private sector involvement in assistance programs (either in the provision of services, training, or playing a role in hiring temporary labor) may make programs more politically feasible and possibly more efficient. If there are strong attitudes about the deserving versus the non-deserving poor, then work requirements and other forms of self-help may help make programs politically feasible. In contrast,
if there are strongly entrenched views about certain services being public goods, then reforms that seek to increase voice and choice must be introduced cautiously. Strong public relations components—or better yet, programs launched on a pilot basis—can help avoid polemical political debates that can jeopardize broader reform efforts.

CONCLUSIONS

This chapter has suggested that there is a clear role for government policy in enhancing the ability of the poor to take up new opportunities. The basic set of policies that all governments should consider implementing have two separate objectives. The first of these is investing in the human capital of the poor—and the children of the poor—to give them the skills needed to take up jobs in the fast-growing economic sectors. Increasingly, these jobs require higher levels of good-quality education. The second objective is protecting those who fall behind, either because of macroeconomic volatility, or because they take risks to get ahead, or because they lack the necessary skills.

Public resources are always limited, and there may be tradeoffs between these objectives at times. Too much focus on the provision of safety nets, for example, could come at the expense of resources that would otherwise go to education and other public goods. And safety nets that are too generous (and pay above-market wages, for example) can be a disincentive to the poor making efforts to find other jobs. On the other hand, if the poor who fall behind have no buffer or safety net, their assets can rapidly come depleted to the point that they are unable to continue to invest in their children’s education—even if it is publicly provided—either because they cannot pay the school fees and other schooling costs or because they need the meager income earned by their children’s labor.

Decisions about these kinds of policies are not made in a vacuum. Rather, they are very much affected by deeply held public attitudes about the government’s role in leveling the playing field and about redistributing outcomes; about the nature of key public goods such as education; and about which sectors of society should be eligible for government support. The chapter shows how attitudes about individual prospects for upward mobility—as well as individual experiences with upward or downward mobility—both influence and are influenced by the policy context, and in turn help determine the actual behavior and effort level of individuals in particular societies. Strongly held views about the role of individual effort in achieving upward mobility in the United States, for example, resulted in a less generous safety net than in other OECD countries. In turn, it is likely that the less generous safety net (as well as social norms about long-term reliance on the safety net) has influenced a range of outcomes from labor market flexibility to occupational mobility, across both sectors and locales.

The data that we have on attitudes for Latin America, discussed in the first section of the chapter, suggest that attitudes in that region more strongly resemble those in the United States than in Europe. The data further suggest that the most sustainable social insurance and safety net policies are those that entail some effort and contribution on the part of recipients themselves, as well as some role for the private sector in the provision of services. Actual outcomes across the region differ as a result of the capacity of public sector institutions and attitudes about redistribution, which are in
part influenced by racial heterogeneity, regional fragmentation, and confidence in public sector institutions. The structure of individual economies—in particular the balance between formal and informal sectors—coupled with fiscal constraints interact with the above set of variables to determine what kinds of policies are feasible.

Finally, political and administrative constraints will affect the choice of policy design, as well as the strategy that is taken to implement it. Centrally driven initiatives and systems are better able to provide a uniform quality of public goods, as well as to maintain safety net systems that can fade in and fade out as needed. Locally driven and/or bottom-up initiatives, meanwhile, are better suited to marshaling local initiative and contribution, and to contexts that require regional or sectoral heterogeneity. They may also be the only feasible approach when central level public institutions are very weak. The latter are also better suited to political contexts where policies must be implemented on a pilot or "stealth" (low-profile) basis in the face of substantial political opposition.

In sum, there is much that governments can do to enhance the capacity of the poor to take up opportunities provided by the private sector in the context of market-oriented growth (assuming, of course, that the opportunities are generated). How much they are able to level the playing field and or tilt it in favor of the poor, however, will depend to a large extent on public attitudes about who should benefit from government efforts, on the balance between formal and informal sectors, on fiscal and administrative capacity, and on the political lay of the land.

**REFERENCES**


NOTES

1 Equity and equitable are terms that are often used interchangeably but have distinct definitions. Equity is both descriptive and functional. At one level, it implies an amount of equality that is deemed optimal by particular societies. At another level, equity norms and standards allow societies to make decisions in certain realms where market criteria are insufficient, such as the distribution of the tax burden. Equitable is a descriptive term that implies that a distribution is as fair and equal as possible.

2 For a description of this approach, as well as a number of examples from different economic sectors, see Birdsell, Graham, and Sabot (1998).
See, for example, the classic description in Alexis de Tocqueville, *Democracy in America* (1969 reprint); for a more recent discussion of actual trends as well as U.S. attitudes about individual mobility, see McMurrer and Sawhill (1998).

See Benabou and Ok (1998).

See, for example, Akerlof (1997), Durlauf (1996), and Young (1994).

For a theoretical exposition of how and when the social norms changed, see Axtell and Epstein (1999).

See Pritchett, Suryahadi, and Sumarto (2000). For details on several other countries, see the chapter on income mobility in this book by Gary Fields and others.

The data for Peru are in expenditure rather than income. As expenditures tend to vary less, mobility rates based on income data would probably be slightly higher. See Graham and Pettinato (2001).


Ed Diener and Robert Biswath-Diener report findings from a panel survey from Australia: high subjective well-being scores at an earlier time period precede increasing income, with one standard deviation increase in subjective well-being producing 2 to 3 percentage point increases in income, and two standard deviations resulting in 8 to 12 percentage points greater income increases in the next time period. They also report results from studies in the United States that found positive effects of cheerfulness on later incomes; these results were moderated by respondents’ parents’ income, however; the effects were greater for individuals from economically advantaged backgrounds. See Diener and Biswath-Diener (1999).


See Fields and others (2001).

For the United States, see McMurrer and Sawhill (1998); for Latin America, see Behrman, Birdsall, and Szekely (2000).

See, for example, the debate on targeted versus universal services between Greenstein (1991) and Skocpol (1991). For a more theoretical exploration of this topic, see Pritchett and Gelbard (1997).

A classic example is the case of Chile in the 1980s and early 1990s. For details, see the chapters on Chile in Graham (1994) and Graham (1998). Another example is the case of Peru. See Graham and Kane (1998).

For a review of several experiments with varying degree of private sector involvement in this area, see Graham (1998).

Previous research on reforms to social service provision, such as vouchers in education and local management boards in education, for example, suggests that the poorest tend to be the least likely to participate, because of marginal but preclusive transaction costs, the high opportunity costs of their time, and low expectations. See Graham (1998).

The data for Latin America are from Behrman, Birdsall, and Szekely (2000) and appear in Figure 2.2.2 of that study. This is discussed in greater detail in chapter 2 of Birdsall and Graham (2000).

See, for example, Birdsall and Londoño (1997); Birdsall, Pinckney, and Sabot (1999); and Birdsall, Ross, and Sabot (1995). For an excellent summary of the debate about inequality and growth, see Fields (2001).


See, for example, Dollar (2001); see also Birdsall and Graham (2000).

We discuss this in detail in Birdsall, Graham, and Sabot (1998).

For more on the distributional effects of various tax schemes, see Birdsall and de la Torre (2001).

For past discussion of this issue, see Graham (1994). Nora Lustig is one of the few authors who has consistently stressed the need for more permanent and institutionalized safety net mechanisms. See Lustig (2001).

I discuss this in detail in Graham (1994) and Graham (1998); see the chapters on Poland in the former and the Czech Republic in the latter.
Of course, the unemployed often have children, and thus the tradeoffs are not always straightforward.

For evidence of how such transaction costs can preclude the participation of the poor, even when opportunities do exist, see Graham (1998).

I discuss the experience of training programs in chapter 2 of Graham (1994).

See Gruber (1997).

For details, see Mazza (1999); for newer work on the case of Chile, see Sebnbruch (2001).


Indeed, these attitudes are so strong that in the aftermath of the Asian crisis, one of the constraints cited to broader international financial institution support for safety nets was local resistance to the expansion of public support and fears of erosion of the family-based system. See Birdsall and Haggard (2000).

The GSS is not a panel and therefore does not cover the same individuals over time. It is the same data set that is used by Andrew Oswald and colleagues to analyze happiness in the United States (Blanchflower and Oswald 1999). Because income was surveyed for only part of the sample for each year, we could examine the effects of income on various dependent variables only for specific segments of the sample at a time.

The question on the redistribution variable—EQLWTH—asks whether respondents agree that the government should reduce income differences, with possible answers on a seven-point scale. The lowest score on the scale is opposition to redistribution and the highest score is support for it. The question about redistribution of wealth is asked in most but not all of the survey years.

Pensions were introduced only with the New Deal, and health insurance for government employees did not begin until the 1960s. Today, more than one in seven Americans—or 42 million people—lack health care insurance. This figure is for individuals that lacked health care coverage in all 12 months of 1999. See Burtless and Siegel (2001). In contrast, the first social security system in Europe dates back to the era of Bismarck in Germany, and national health systems were in place in many countries by the first half of the 20th century.

States could exempt up to 20 percent of recipients from these limits.

An additional (and federal) effort to make work pay was the expansion of the Earned Income Tax Credit (EITC). The OECD, meanwhile, has a similar scheme, entitled "Make Work Pay." I thank Gary Fields for raising this point. A remarkable number of observers—including those who were initially strongly critical of the reform—note that the reform has been remarkably successful thus far, cutting welfare rolls by half by 2000. During that period, 6.5 of approximately 12 million people on welfare moved off it. See Murray, Serafini, and Twohey (2001). Even supporters of the reform, however, caution that some of this progress resulted from the unprecedented expansion of the U.S. economy, and that in the event of a serious recession, many of the low-skilled jobs held by post-welfare recipients will be the first to be cut. The evidence of the effects of the reform on children of single working parents who have had to go to work or risk losing their benefits is mixed to date. See Morris and others (2000).

States could exempt up to 20 percent of recipients from these limits.


See McMurrer and Sawhill (1998); see Erikson and Goldthorpe (1985).


For an excellent summary of this debate, see Skocpol (1991) and Greenstein (1991).

For an excellent summary of this debate, see Skocpol (1991) and Greenstein (1991).

See Nelson (forthcoming). In addition, Peter Lindert finds that differences among industrial countries' political tendencies to spend on social transfers are largely explained by income skewness: the size of the
gap between the rich and the middle versus that between the middle and the poor. A wider lower gap means less affinity of the middle class for the poor, and therefore less social spending. The United States, which has a large gap between the middle and the poor, has the lowest level of social spending of the countries in the sample. See Lindert (1996).

Several surveys find that respondents typically overestimate the percentage of the poor population that is black (in reality 27 percent of all poor). See Gilens (1999: 68-9).

Erzo Luttmer notes that relatively racially heterogenous states provide lower welfare benefits. See Luttmer (2000).

An earlier study by Larry Orr, controlling for average state income and for regional differences, finds that a state with an all-white caseload would offer almost $2,000 per year more in AFDC support than would one with an all-black caseload. State policies for the “deserving” poor, in contrast, do not differ by race. See Orr (1976). A separate study cited by Gilens, by Christopher Howard, finds that there are no racially linked differences between states on unemployment insurance benefit levels. See Howard (1997).

A related issue is that of racial or ethnic fragmentation and the allocation of public goods. See Alesina, Baqir, and Easterly (1999).

There are approximately 1,000 interviews per country. The poll is conducted by a respected private firm, MORI, based in Chile, with the support of the European Commission and the Inter-American Development Bank. The effort began in 1995 with a subset of countries; full coverage began in 1997. I was involved in the effort to launch the survey while spending time on a fellowship at the IDB, and continue to provide input on the design of the survey each year. Because MORI still must cover costs, the most recent data are available to the public only for purchase. Lagged data are available free of charge from the IDB.

Author’s calculations based on GSS data.

Regression results for both sets of conclusions are available from the author on request.

For both Latin America and the United States, we find that reporting leaning toward the right rather than to the left of the political scale is positively and significantly correlated with happiness, although the direction of causality is far from clear. We expand on issues of subjective well-being and their relation to macro and micro-economic phenomenon in several other papers, which are best summarized in Graham and Pettinato (2001).


Regression results are available from the author.

We discuss this in detail in Graham and Pettinato (2000).

For numerous accounts of clientelism or politics dominating allocation decisions in public safety net programs, see Graham (1994).

See Birdsell and James (1990); and Angell and Graham (1995).

For a review of the record in this area, as well as the philosophical debates, see Grosh (1994) and van de Walle and Nead (1995).

For a critical review of social funds, see Tendler (2000).

See Ravallion (1999).

See, for example, Cowan and de Gregorio (2000) and the chapters on Chile in Graham (1994) and (1998).

To a large extent, this reflects the power of the Peronist labor movement at the time that it was established. Even the semi-private pension system, established in the 1990s, is much more favorable to middle-income workers than to lower-income ones.

Ecuador has a small, non-traditional system; Venezuela has a severance pay system that is in flux, and in the Caribbean, Barbados has a traditional scheme. For an excellent overview of unemployment insurance and related systems in the region, see Mazza (1999).

The law has been the subject of much debate, with a great deal of opposition from the right. Depending on how one reads the law, as little as 7 percent of the labor force will have coverage.

We report these results fully in Graham and Pettinato (2001).

Other large-scale public assistance programs, such as public works programs in India, have been implemented on a regional basis.
Index

Abowd, J. M. 77
Abraham, A. 153
Africa 194–5, 197–9, 225
African entrepreneurial development
minority firms 156
multivariate probit model 170
problem of 155, 187
see also Sleuwaegen and Goedhuys
African-owned entrepreneurial firms 156, 180
liquidity constraints for 167
Africans and minorities
entrepreneurs, differences between 168, 171–2
firms owned by, determinants of growth 180,
187
Agricultural Economics Research Centre (AERC)
125
agriculture
employment 41
labor markets 125
technological change in 129
Ahn, D. 120
Ahn, K. S. 99
Akerlof, G. 279
Albania 214
Alderman, H. 153
Alesina, A. 225, 259, 280–1
al Sayyad, N. 5
Amadeo, E. 45
Americans see United States
Andean countries 270
Angell, A. 281
Antari, N. 152
apprenticeship
to micro-entrepreneurship 167
programs 164
Argentina 71, 257, 269–70
unemployment insurance systems 270
Artecona, R. 39
Asia 167–8, 225
1997 financial crisis 91
Asian Cubs 41
assistance programs, centrally based 274
Auer, P. 103
augmented Cobb-Douglas production function
175
Australia, panel survey 279
Austria 97
automotive component industry 242
Bagg, W. S. 35
Baker, G. 121
Baín, J. 77, 82
Balsas, B. 68–9
model of real exchange rate 69
bank loans 161
Baqir, R. 281
Barbados 257, 281
Barenstein, M. 82
Barr, A. 73
Barreto, H. 189
Bates, T. 181
Batra, G. 193, 213–14, 223, 225
Battat, J. 213
Baumol, W. 157
view of role of entrepreneur 158
Beegle, K. 43
Beermann, J. 252
Belgium 68
Belka, M. 116
Bell, L. 70
Benabou, R. 248, 255, 279
Berkowitz, D. 107, 117
Bhagwati, J. 36
Bhalla, S. 152
corporate partners 236
corruption 195, 203, 206, 221
bureaucratic 216
exposure to 217
and governance 199–200
indicators by region 200
predictability of 209
see also bribery
Costa Rica 8, 36, 270
agriculture 44
case study 44, 56–9
education categories, low 44
employment composition 57
Encuesta de Hogares de Propósitos Múltiples, Empio
y Desempleo (Encuesta Nacional de Hogares)
44, 56
growth 56
labor market conditions in 44
poverty 44, 59
real earnings 58
social welfare policies in 273
unemployment rate 44, 56
wage and salaried employment 44
workers 44
Cote d’Ivoire 156, 159, 163–6, 168, 175
country-specific poverty lines 29
country studies, lessons learned from 46–7
Cowan, K. 281
credit
evaluation methodologies 234
lack of access to 257
markets 114–15
subsidized 234
Cunningham, W. 79, 82
cyclical fluctuations 256
Czechoslovakia, privatization program 105
Czech Republic 67, 71, 115, 117, 279
Dandekar and Rath, absolute poverty standard 140–1
Dandekar, V. 140
Deaton, A. 152
de Castilla, R. 73
decentralized, demand-based programs 273
“decent” work 65
meaning of 80
de Gortari, S. 75
de Gregorio, J. 281
De Jong, D. 117
de la Torre, A. 279
De Long, B. 120
Deng Xiaoping 105
Denmark 97
deserving poor 261
and non-deserving poor, distinction between 259, 262
De Soto, H. 77, 118, 217, 225
“De Soto View” of informal sector 216, 221
de Tocqueville, A. 259, 279
developing countries
large self-employment sector 66–72
long-term economic mobility and private sector 35
obstacles facing smaller business 215
Developing East Asia 195, 197, 199, 212
developing regions as group 195
development, ultimate objects of 4
Diener, E. 279
di Tella, L. 259, 280
Djankov, S. 107, 109, 117, 120–1
Doka Genie Technologies Company, Russia 239–41
Dollar, D. 4, 35, 279
Dominican Republic 264
donor organizations or government agencies 236
Drèze, J. 125–7, 129, 152–4
Durlauf, S. 279
Earle, J. 109, 120–1
and Sakova’s (2000) study of entrepreneurship 115
Earned Income Tax Credit (EITC) 280
East Asia 195
economies of 38
East Asia NIC/China 199
Easterly, W. 281
Eastern bloc countries 67
Eastern European and former Communist economies 256
econometric model 173
economic activities in rural areas 124
Economic Commission for Latin America and the Caribbean (ECLAC) 45, 269
economic globalization 194
economic growth
effect on poverty, hypotheses 39–40
higher wages 46
long-term effects of 37
economic mobility 247
short-term 14
economic position, initial, primary importance of 28
economic sectors, high-skill 253
economies of scale 113, 216
Ecuador 67, 281
education 138–9, 253, 275
deregulation of 97
of head of household 33
levels of 73, 163, 166, 187
employment 4
change in 181
and labor earnings, changes in 39
maximization 90
in small firms in Poland 121
see also head of household
transition economies
entrepreneurial growth conditions, higher level of 203
entrepreneurial capabilities, fixed, basic model 181
transition economies
entrepreneurial culture 235
entrepreneurial firms
establishment of 159–62
and non-entrepreneurial firms 177, 182
performance of 155, 175–87
productivity, determinants of 178
entrepreneurial function, impact of 159
entrepreneurial patterns in transition economies 106
entrepreneurial talent, availability of 155
entrepreneur 162–6
activity types of 157
attributes and endowments of 162
distribution by ethnic background 168
economic roles in development 157
endowments 156, 158–9, 173–5
ethnic background 170–1
father’s occupation of 162
formal education of 179
as innovator, gap-filler, and input-completer 158–9
prior experience in industry 165
profit 158
role of 157–9
self-help 114
strategies of 110–13
supply of 166
in transition economies, central role of 105
entrepreneurship
environment for 106–7
exemplifying theories of 157
new type 158
supply of 157–9
entry costs 216
Epstein, J.M. 279
equality of opportunity 265
enhanced 255
equity markets 115
equity norms 278
Ericson, R. 181, 280
Estonia 117
Ethiopia 67
ethnicity
and entrepreneurship 167–73
and growth 184–7
of minority entrepreneurs 168
ethnic ties 156
Europe 248, 275
actual mobility rates in 260
small, open economies in 97
Europeans 167–8
European-style system 256
Evans, D. 166–7, 181
exchange rate 221
obstacle 219
regime, inadequate 201
exogenous shocks 256
expropriation
by insiders 115
of profits 106
external shocks 274
Faber, H.S. 82
Fafchamps, M. 118
Fajnzylber, P. 82
family
background 253
income and expenditure surveys of 40
size 29
type 25
Farber, H.S. 77
Fci, J. 28–9, 38
FIAS 213
Fiat/Magneti Marelli, India 241
Fiat, marketing strategies 245
Fields, G. S. 3, 13, 25, 35, 38, 40, 48, 64–5, 77, 82, 152, 253, 279
Fiers, N. 74
finance 195–8
sources of 198
financing 195, 221
constraints 198
firm
age of 224
architecture of 170
attributes 203
characteristics 200–1, 219
constraints to enterprise growth 204–5
efficiency 175–80
with government participation in ownership 218, 224
growth 180–5
investment 205
sales growth 204
size 173, 181, 216–19
fiscal adjustments 255
Fisher, F. 157
Fisman, R., 179
food park 240
Ford 232
foreign connections 173
foreign direct investment (FDI) 201
foreign–owned firms 218–19, 224
foreign sources of information 188
forgotten middle 201
formal salaried employment 66, 74
formal sector
employment 79
labor market 65
productivity 66, 71
workers 74
formality, notion of 76–7
former Soviet Union 4, 106
formerly Communist countries 8, 218
Foster Greer Thorbecke (FGT) class poverty measures 153
Four Tigers 40
Fox, M.L. 45
Frankenberg, E., 43
Frank, M. 181
Freeman, R.B. 82
free trade 13
Freije, S. 13
Friedman, E. 214
Friedman and Kuznets classic permanent income hypothesis of 19
Friedman, M. 19
frustrated achievers 250
Frye, T. 106, 114
Fugazza, M. 74
Galenson, W. 37
GDP 44, 91
Gelbard, J. 279
Germany 68
attitudes towards government responsibility in 261
Ghana 156, 159, 163, 189
Gibbons, R. 121
Gibrat-influenced models 181
Gibrat’s law or Law of Proportionate Effect 180–1
entrepreneurial firms versus others 183
Gilens, M. 263, 280–1
Gindin, S. 36
Gindling, T.H. 44
Glaeser, E. 115
global economy, trends in 250
globalization 36, 94–5, 97, 229
global marketplace 234
global markets, bringing SMEs into 229
global production, evolving structure of 235
global supply chains, participating in 231–4
GM 232
Goedhuys, M. 166
Goldthorpe, J.H. 280
Gonzalez de la Rocha, M. 77
Gottip 111
governance 194, 213
governance-related constraints 206
government efficiency 201
to enhance opportunity and reduce insecurity 249–53
participation in ownership 218, 225
policies 103, 254
failures in 254
old age or Social Security benefits 248
pensions and health care 76
redistribution of income 260, 266
responsibility for social welfare 260
role in enhancing opportunity for poor 257
rules and regulations 215
social spending as percentage of GNP 259
welfare policies, structure of 258–63
government-business coalition 92
Government of India 242
Government of Kazakhstan 238
Graham, C. 64, 93, 247, 251, 266, 278–81
Greece 67
green revolution 125
Greene, R. 279–80
Gregory, P. 82
Grnsh, M. 281
Gruber, J. 280
Gruner, H.P. 260, 280
Haggard, S. 280
Haggerty, L. 213
Hall, B. 189
Hallberg, K. 229, 245
Haltiwanger, J. 116–17
Harbison, F. 102
Haris, J. 153
Harris-White, B. 152
Hart, K. 65
Harvard University 280
Index

harvest failures 139
fluctuations 128
good 154
Hazel, P. 153
head of household
education of 25
employment status 25, 28, 30, 33
gender of 25, 33
job category and poverty transitions, relationship between 31
health insurance 280
heavy and chemical industries (HClIs) 89
Helfman, J.S. 214
Hendley, K. 114
Henwood, D. 36
Hilgert, M. 252, 279
Hiratsuka, R. 236
Hirschman, A. 254, 279
Hojman, D. 279
Holland, J. 107
Honduras 67
Hong Kong 40
Hong, W. 162
households
adult males in 136
characteristics, relationship between 24–8
children, number of 25
income dynamics and base-year income, initial results 16–18
independence 23
initially poor 32
initially rich 32
location 25
members, number of 33
mobility, economic 14
multivariate analysis 18–24
per capita income (PCI) 13–14, 16
percentage by poverty experience 30
profiles by initial position 18–19
quintiles, transition matrices 14–15
surveys 124
types of 14
see also head of household
Howard, C. 281
human capital
attainments and net worth 156
differences 169
dependencies of entrepreneurs by ethnic background 169
formation 164–5, 181
Hungary 67, 71, 116
Hwang, D.S. 98
Ian, H.W. 233
income
inequality, "inverted U-Curve" 152
mobility 13
percentage changes in shocks 139, 255
income changes in currency units 14
determinants of 29
India 4, 230, 237
Automotive Component Manufactures Association of India (ACMA) 241–3
automotive industry 232, 242
Automotive Research Association of India (ARAI) 241–3
investment climate, improvement in 124
National Centre for Applied Economic Research (NCAER), India 124
National Sample Survey Organization (NSSO), India 124
public works programs in 281
recent development path 123
village, development in 123
see also Palanpur
indirect exporters 234
individual efforts 267
Indonesia 7–8, 36
1997 economic crisis 43
agriculture 42
case study 41–4, 52–5
Consumer Price Index 42
economic growth 42
Family Life Survey 15, 34
GNP per capita in 41
household income dynamics 13–34
industrial employment 42
labor market 43
National Labor Force Survey (SAKERNAS) 39, 42, 52
poverty 42, 55
pre-crisis 46
real earnings 54
SUSENAS survey 39
unemployment composition 53
unemployment rate 43–4, 52
workers' earnings 42
industrial sector 51, 68
industrialized countries 67, 72
literature on firm behavior 76
inequality
tolerance for 259
top-driven 254
inflation 114, 195, 221
informal contracting 111
informal entrepreneurship 80
informal sector "demand" curve 67
informal self-employment 65–6
and formal salaried sectors across development process 68
precariousness 76–7
informality 217
and unprotectedness 72–80
infrastructure 195, 221
Innovation Marketplace 213
institutional obstacles 221
institution-building objectives 273
institutions of civil society 76
insurance mechanisms 255
Inter-American Development Bank 44, 252, 281
inter-firm linkages 233
intergenerational determinants of educational achievement 254
intergenerational mobility 253, 264–6
International Centre for Research in the Semi-Arid Tropics (ICRISAT) 152
International Finance Corporation (IFC) 34–5, 37, 213, 225, 238
SME Support Facility 238
work on poverty reduction 37
International Labor Organization (ILO) 43, 65
International Monetary Fund (IMF) 5, 35, 42
international standards 237
investment 4
climate 3, 35
in children's education 256
involuntary self-employment rate 66
Ireland 97
ISO 237
ISPAT Karnet, Kazakhstan 238–9
Isuzu in Thailand 231
Italy 68
attitudes towards government responsibility in
261
Just-in-time (JIT) delivery 230
James, E. 281
Japan 68, 232
koizumi system 236
Jayaraman, R. 152
Jelin, E. 82
jobs 116
creation by private firms 5
in high-technology 253
John F Kennedy School of Government 280
Johnson, S. 106, 108, 114–18, 121, 214, 217

Jovanovic, B. 76, 181
learning model 182–3
judiciary 221

Kane 279
Kapteyn, A. 279
Karaganda Oblast 238
Kaufmann, D. 193, 207, 210, 213–14, 217
Kazakhstan 230, 237
Keefer, P. 223, 225
Kenya 65, 156, 164, 168–9
Kharas, H. 213
Khemani, S. 213
Kilby, P. 184, 186
Kim, D. 99
Kisunko, G. 225
Klitgaard, R. 214
Kloost, P. 152
Knack, S. 223, 225
knowledge receptors, private enterprises as 6
Koford, K. 113
Koenig, J. 109, 116
Konishi, Y. 229, 236
Korea 67, 70
agricultural employment 85
Annual Report for Economically Active Population Survey 87
Asian financial crisis in 1997 97
Chaebul 103
colleges and graduate schools 102
creation of productive employment 85
currency 88
division of labor 88
economic growth, major indicators of 86
education explosion 89
education reform 94–5, 103
employment, improvements in quality 100–1
equalization policy 94
exchange rate 88
export sector 87, 90
GBC (Government-Business Coalition) strategy 89–90, 95–6
GDP 86–7, 91
Globalization, reform for 103
government policy toward small-scale economic
units 90
HGs 90
human resource development 88–9
import substitution 87–8
income inequality in 99
industrial democracy 95, 103
industrial relations reform 95–6
interest rate reform 88
Korea contd.
labor force participation rate, employment rate and unemployment rate 87
labor-intensive manufactured goods 88
literacy rate 89
living standards 85
long-run development 8
market liberalization paradigm 96
market size 88
moral hazard problem 90
National Investment Fund 89
National Statistical Office 86–7, 99–100
new social divide 94
non-farm employment 85
people’s socio-economic activities 103
policy loan 89
poverty 85, 98
private entrepreneurship 88
private sector development 85, 96
prudent regulations, absence of 97
regulatory regime 987
research quality of graduate schools 94
risk-sharing arrangement 89
social safety nets 97
total population 102
union membership 103
university–industry linkage in R&D activities 95
upward mobility, mechanism of 96
Yearbook of Labor Statistics 91, 101
Korean Statistical Yearbook 86
Korean War of 1950-53 89
Kozel, V. 152
Kraay, A. 35
Kranton, R.E. 110–11
Kremer, M. 189
Krueger, A. 120
Kuo, S. 28–9
Kuznets, S. 19, 152
KwaZulu-Natal Income Dynamics Study 15, 34
Kynch, J. 152
labor
casual 144
compensation 230
earnings 29
force, educated 46
management perspective of 243
subsidies 91
survey data 121
transfer from traditional subsistence agriculture to modern sector 123
labor-intensive industries 229
labor markets 33, 36, 46, 70, 166
conditions 38
cost pressures on 47
distortion 66–72
indicators across countries, database of 39
protections 66
rigidities 66, 79
and small firm sector, incomplete regulation of 72
landlessness 143
Lanjouw, J.O. 152
Lanjouw, P. 123, 126, 129, 131–3, 137–8, 140, 145–7, 149, 152–4
large firms 195
problems 217
large-scale investments 113
last-resort income sources 143
Latin America 8, 197, 199, 200, 225, 250, 253–4, 264, 266, 275
attitudes and outcomes in 267–71
causes of poverty attitudes about 265
countries 66
equal opportunity attitudes about 267
fear of unemployment 272
marginal returns to education 252
perceptions of equal opportunity 271
productivity supporters versus GDP per capita 266
social spending in 269
top-driven inequality 252
Latin America and the Caribbean (LAC) 195, 212
Latinobarometro survey 264–7, 271–2
laws and regulations, implementation of 208
leave-it-to-the-market view 118
Lehmann, H. 109
Leibenstein, H. 157–8
Leighton, L. 166–7
less developed countries (LDCs) 70, 72, 87
labor markets 71, 79
services in 73
level playing field 223, 255
Levenson, A. 76
Levinsky, J. 245
Levy, R. 213
Lewis, A. 123
Lewis process of intersectoral transfer 152
Lewis, W.A. 38
Li, H. 116
Liedholm, C. 173
Lien, D. 214
"lighthouse" effect 73
Limited Liability enterprise 159
Lindert, P. 281
Little, J.M.D. 245
living standards in rural areas 124
Lizal, L. 117
LNMI Group of India 238
local capacity building 273
local economic policy 194
local level stakeholders creation of 273
locally driven and/or bottom-up initiatives 276
legit models 30
Londoño, J.L. 45
long-term dynamism '4
long-term economic mobility 38
and market-oriented economic growth 36
low-cost labor 231
low-cost lending techniques 234
Luxig, N. 75, 279
Luttmer, E. 263, 281
MacCulloch, R. 259, 280
macroeconomic constraints 206
macroeconomic cycles 274
macroeconomic instability 114
macroeconomic reforms 274
Magneti Marelli 243
Maguire, M. 152
Malaysia 232–3
"Maloney View" of informal sector states 216, 221
Maloney, W.E. 64–6, 70, 73–6, 79–80, 82, 216, 225
manpower utilization surveys 39–40
Manisfield, E. 180
Marcoullier, D.V. 73
market forces and state intervention, mix of 96
markets
criteria 278
distortions in 254
imperfections 215
liberalization 92–4, 97
niches 108
"real-time" feedback from 4
rules and procedures, developing 121
structure, tiered 232, 242
market-supporting institutions 106, 108
mass privatization program 160
Mastruzzi, M. 207, 210
Mauro, P. 214, 225
Mazumdar, D. 245
Mazza, J. 280–1
McKenzie, J. 121
McMillan, J. 105–8, 110–11, 114–18, 121
McMurry, D. 279–80
Medd, D. 173
Medicare 262
Megginson, W.L. 120
Menéndez, M. 13
Merton, R.K. 19
Mexico 36, 66, 71–2, 74, 79, 270
formal sector in 70
microenterprise survey 77
micro-firms 76
motivation survey data from 79
National Urban Employment Survey (ENEU) 74
open unemployment in 75
Urban Employment Survey (ENEV) 75
Meyers, C.A. 102
microenterprises 65, 166, 229
microentrepreneurs 65, 76, 163
microfinance industry 234
Middle Eastern entrepreneurs 189
Middle East and North Africa (MENA) 190, 195, 197, 212
middle-income countries 67
Miller, J.B. 113
mobility rates in new market economies 249
modern urban sector 123
Montes, G. 82
MORI 281
Morris, P.A. 280
Mozambique 156, 159–60, 168, 189
Mukherjee, A. 152–4
multinational corporations (MNCs) 36, 219, 231–2, 237
supply chain 232–3
QCD demands of 235
Western 36
Murphy, K.J. 121
Murray, M. 280
Murrell, P. 114, 117, 120
"Must Do" policies 253–7
Naughton, B. 108–9, 120
Nead, K. 281
Nellis, J. 105, 120
Nelson, J. 263, 280
Nenova, T. 109, 121
net worth and liquidity constraints 169
Netherlands, the 68, 97
Netter, J. M. 120
New Deal 280
new firms 106
Newhouse, D. 13
Newly Industrialized East Asia 195, 197
Newly Industrialized East Asia (NIC) and China 212
Newly Industrialized Economies (NIEs) 40
new market economy 106
Nigeria 156, 163, 165, 169, 189
non-deserving poor 261
non-farm employment as safety net 143
non-farm unemployment 87, 91
non-tradeables, construction and services 76
non-working poor 261
NPR/Kaiser Family Foundation/Kennedy School Poll on Poverty in America 262, 280
Nuñez, J. 70, 82
OECD 67, 195, 197, 199, 212–13, 225, 259, 275, 280
annual productivity growth, services versus industry in 69
off farm opportunities 123
official corruption 106
official policies 107
Ok, E. 248, 255, 279
Olson, M. 217
openness to ideas 6
opportunities for mobility 269
opportunity costs 158, 166
Ordinary Least Squares regressions 22
Organization of Economic Cooperation and Development see OECD
Orr, L. 281
Oswald, A. 280
Packard, T. 73
Page, J. M. 245
Pakes, A. 181
Palampur village 9, 124, 126, 149
agricultural labor households 142, 146–7, 154
agricultural wages, evolution of 146–50, 154
agriculture 124, 129–31, 148–9
Analysis of National Sample Survey data 154
behavior of farmers 125
caste composition of village population 127
castes 126, 144, 153
children 153
Consumer Price Index for Agricultural Labourers (CPIAL) for Uttar Pradesh 131
economy of 128
education 144
gender 144
households in 145–8
income 128–9, 149
labor-displacing technological change 148
labor intensity of new agricultural technologies 150
landholdings 136, 150
NCAER data for rural areas 149, 154
non-farm employment 131–3, 141, 144–6, 150
NSSO household surveys 152
occupational diversification 124, 131–2
outside employment and incomes 132–9
population 126, 129, 153
poverty in 124, 140–3
rural markets 125
study 125–40
technical change, role and impact of 125
Park, S.-I. 85, 103
Paxson, C. 153
payoffs, structure of 158, 187
Pencavel, J. 71
per capita income changes, determinants of 32
decomposing sources of change in 28–9
per capita real GNP 40
Peronist labor movement 281
personalized interfirm relationships 113
Peru 249–51, 279
perverse incentives, problems 258
Pettinato, S. 251, 266, 279, 281
Pfeffermann, G. 3, 64, 213, 225
Philippines 67
Piketty, T. 248, 280
Pinckney, T. 279
Platteau, J. 153
Poland 67, 71, 106–21
Central Statistical Office 109
development of relationships with trading partners 112
private sector firms industrial employment in 109
self-employment in 109
Poleman, T. 153
policy guidance 224
implementations for 118
instability 195, 198–9, 223–4
political and administrative constraints 271–6
political debate 273
political economies of scale and influence 217
Index 293

political economy 92
political opposition 273, 276
poverty
alleviation in developing countries and transition economies 215
and the non-farm economy 143–9
causes of 262, 264, 269
correlates of 141
entering and exiting 30
escapes from 29–32
line 44, 153–4
rates 46
reduction 36, 43, 47
transitions, analysis of 31
poverty-reduction strategy 193
Pradhan, S. 214
Prince of Wales Business Leaders Forum (PWBLF) 241–3
Pritchett, L. 279
private and public sectors, role in employment 46
private elites 208
private firms 4
influential, countries with 208
private investment 6
private sector 51
activity 155
employment 110
production, change in globalization of 232
productivity 155
versus redistribution 266
product quality 230
professional networks 170
profits
and entry 107–10
reinvestment 113
property rights, protection 206
prospects for future upward mobility (POUM) 248
hypothesis 255
protection
and benefits 72–3
for unemployed adults 256
prudent regulatory regime 93
public attitudes 247, 258–63
and politically sustainable policies, developing country context 264–71
public ownership 115
public policy 10, 247
public resources
scarce, choices 256
trade-offs between objectives 275
public sector institutions 275
public services, quality of 200
public social expenditures and welfare policies 253
Pune 243
Pyatt, G. 28–9
Qian, Y. 115
QS 237
quality incentives 113
quality, cost, and delivery (QCD) requirements 231–2
of multinationals 237
racial composition of poverty 263
racial group loyalty 263, 270
racial heterogeneity and immigration 259
Ramachandran, V. 173
Rama, M. 39
Ramawamy, C. 153
Ramey, G. 110–11
Ranis, G. 28–9, 38
Rath, N. 140
Ratnri, M. 173, 186
Ravallion, M. 152–3, 281
Ray, D. 153
redistribution 264, 269, 280
attitudes about 275
social equity perspective 247
weak record of 268
Regional Program for Enterprise Development (RPED) see World Bank
regional sourcing strategy 232
regulatory constraints 197
regulatory, infrastructure and financial barriers 194
relational networks 156
repeated games 113
incentives 110
Res, H. 167
Ribeiro, E. 71
Richter, A. 109, 116
Rio de Janeiro favela and low-income housing complexes 5
Roberts, M. 214
Romania 113, 116
Ronald, P. 107
Rose-Ackerman, S. 214
Rosenzweig, M. 153
Ross 279
Rosenberg, J. 121
Roy, A. 5
Rozelle, S. 116
rural non-farm sector 123, 149
rural poverty 123, 152
Russia 106–21, 230, 237, 250
development of relationships with trading partners 112
economic growth rates of the different regions of 117
manufacturing employment 109
perceived past mobility and actual income mobility 251
self-employment in 109
see also Doka Gene
Ryan, J. 152
Ryterman, R. 114
Sabot, R. 278–9
safety nets see social safety nets
Saith, A. 152
Sakova, Z. 109, 121
Sala-I-Martin, S. 4
Saloner, G. 121
Satan, M. 152
Sawhill, I. 279–80
Schaffer, M.E. 109, 116
Schiffer, M. 213, 225
Schumpeter, J. 157
model, earlier 157
original conception of entrepreneurial function 158
“Schumpeterian effect” on growth 184
Schumpeterian innovator 158
Sehnbruch, K. 280
self-employment
voluntary 77
versus industrial productivity 67
self-help mechanism 111, 113
in financial markets 115
semi-private pension system 281
Sen, A. 152
Seoul National University 103
Serafini, M.W. 280
services
sector 68
to businesses 194
severance pay system 281
Shaffer, M. 109
Shah, A. 167
Shah, M. 155, 165, 173
Shariff, A. 149
Sharma, N. 125–7, 129, 153
Sharma, R. 153
Shariff, A. 154
Shleifer, A. 106, 114–15, 214
Shorrocks, A. 29
Siegel, S. 280
Singapore 40
Singh, L. 154
Skocpol, T. 262, 279–80
Sleuwaegen and Goedhuys (1998) study 174
choice model to study underlying determinants of entrepreneurship in Africa 166–7
Sleuwaegen, L. 166
Slovakia 113–14
small firms
bias against 224
and large firms, different patterns of concerns 221
small and medium enterprises (SMEs) 8, 90, 106, 111, 124, 195, 201, 215, 224, 229, 233
assistance “new paradigms” in 234–5
corporate linkage programs 230, 235–7, 244
creditworthiness 230
definition of 245
efficiency, problems of 231
entrepreneurial 245
financial and non-financial services for 234
“lifestyle” 245
performance and market imperfections 230–1
supply side of 235
small farmers 128
Smarzynska, B. 233
Smith, Adam 119
Smith, J.P. 43
Snodgrass, D. 245
Soares, S. 45
social assistance systems 256
social capital 235
social contract, domestically financed 272
social insurance systems, inadequate 253, 268
social networks of family 76
social norms and public attitudes, interaction between 248
social safety nets 93, 255, 271–2
and social assistance policies, choice of 273
program design 256
social security 262
programs, individual account-based 258
social welfare
policies 273–4
reforms 274
structures 272
South Africa 7
household income dynamics in 13–34
Zimcle Fund, study tour in 239
South Asia 195, 197–8, 212
developing countries 167
unemployment
fear of 271
insurance 255, 257–8, 271, 281
rates 248
unions in less developing countries 71
United Kingdom 68, 167
attitudes towards government responsibility 261
United Nations 239–42
United States 68, 70, 72, 108, 167, 259, 275
actual mobility rates in 260
aid to families with dependent children (AFDC) 261
causes of poverty; attitudes about 262–3
citizens 73
Earned Income Tax Credit (EITC) 258
Federal Reserve 121
General Social Survey (GSS) 260, 262–3, 265
government responsibility, attitudes towards 261
job transitions in 79
National Survey of Small Business Finances 121
Panel Survey of Income Dynamics 38, 248
social mobility in 248
Social Security Administration 73
studies of long-term mobility in 253
temporary assistance for needy families (TANF) 258, 261, 273
welfare reform 280
welfare system 256, 261, 263
workers 66
University of Delhi 125
unofficial economy
behavior of registered firms 206
determinants of 206
upgrading jobs and skills 5
upward mobility 4, 143, 265
generating 85
role of individual effort in 275
Uruguay 270
social welfare policies 273
Uttar Pradesh, India 124
poverty line 140
van Bastelaer, T. 153
van de Walle, D. 281
VAT 255
Veblen, T. 279
vendor development programs (VDPs) 236
Venezuela 7, 281
household income dynamics in 13–34
Sample Household Survey 15, 34
Vietnam 106–21
development of relationships with trading partners 112
lack of formal market-supporting institutions 110
manufacturing community 111
private firms 109
village
government 116
studies 124
Vishny, R. W. 214
vocational training 257
Vodopivec, M. 116–17
volatility, levels of 250
wages
distributions 70, 73
and poverty 73–6
Waldman, M. 120
Walker, T. 152
Watson, J. 110–11
Weder, B. 213, 215, 225
welfare
effects of entrepreneurship 116–17
policy, alternative model 273
program, centrally implemented 273
reform law 261
West Bank and Gaza, territory of 225
Whang, S. 99
Whiting, S. H. 115
Wodon, Q. 82
Woodruff, C. 73, 105–8, 110–11, 114–18, 121
workers 37
in developing countries 35
working capital 188
finance 179
World Bank 35, 39, 154, 193, 216, 219
Regional Program for Enterprise Development (RPEID) surveys 156, 161–78, 182–3, 185
Regional Studies Program of Latin American and Caribbean Region of 82
World Bank Institute 213
World Business Environment Survey (WBES) 193–4, 216, 219–23
countries surveyed 212
data on state capture 211
implications 211
objectives 194
sample distribution of region, size and sector 196–7
Steering Committee 213
World Development Indicators database 121
World Development Report 7, 37
world markets 244
population 3
poverty 4
Worldwide Business Environment Survey 7, 10
worldwide enterprise data set 206

Yeon, H.C. 98
Yoo, H. 99
Yoo, K. 99
Young, P. 279

Zambia 156, 164, 168
Zavaleta, D. 207, 210
Zhong, K.X. 105
Zimbabwe 67, 156, 159-60, 163-4, 168, 173
Zoido-Lobatón, P. 214, 217
Pathways Out of Poverty
Private Firms and Economic Mobility in Developing Countries

Edited by Gary S. Fields and Guy Pfeffermann

Until recently, development economists tended to assume a role for private enterprises in reducing poverty, but they didn’t articulate it explicitly. The new institutional economics literature, with its emphasis on transaction costs, addresses the environment in which private businesses operate in various countries - the "investment climate."

Building on this new thinking, Pathways Out of Poverty begins by citing the worldwide drop in the number of very poor people and goes on to identify the ways in which private firms and how contribute to economic mobility and poverty reduction and what governments can do to enhance this contribution. In four parts, the editors and contributors address economic reality, offer numerous global examples, consider the importance of good investment climate, and examine the impact of public policies and financial innovation. Their theory, hard economic analysis, and case studies provide rich and innovative mechanisms for reducing poverty in developing and transition countries.

Gary S. Fields is professor in the Department of Labor Economics and chair of the Department of International and Comparative Labor at Cornell University.

Guy Pfeffermann was for the past fifteen years Chief Economist of the International Finance Corporation, the private sector arm of the World Bank. He teaches at Johns Hopkins University in the School of Advanced International Studies.