#### OXFORD

## GROWTH, INEQUALITY, AND POVERTY

PROSPECTS FOR PRO-POOR ECONOMIC DEVELOPMENT

Edited by Anthony Shorrocks and Rolph van der Hoeven

UNU-WIDER STUDIES IN DEVELOPMENT ECONOMICS

# GROWTH, INEQUALITY, AND POVERTY

# UNU WORLD INSTITUTE FOR DEVELOPMENT ECONOMICS RESEARCH (UNU/WIDER)

was established by the United Nations University as its first research and training centre and started work in Helsinki, Finland, in 1985. The purpose of the Institute is to undertake applied research and policy analysis on structural changes affecting the developing and transitional economies, to provide a forum for the advocacy of policies leading to robust, equitable, and environmentally sustainable growth, and to promote capacity strengthening and training in the field of economic and social policy-making. Its work is carried out by staff researchers and visiting scholars in Helsinki and through networks of collaborating scholars and institutions around the world.

UNU World Institute for Development Economics Research (UNU/WIDER) Katajanokanlaituri 6B, FIN-00160 Helsinki, Finland

## Growth, Inequality, and Poverty

Prospects for Pro-Poor Economic Development

*Edited by* ANTHONY SHORROCKS ANDROLPH VAN DER HOEVEN

A study prepared by the World Institute for Development Economics Research of the United Nations University (UNU/WIDER)



### OXFORD

Great Clarendon Street, Oxford OX2 6DP Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide in Oxford New York Auckland Bangkok Buenos Aires Cape Town Chennai Dar es Salaam Delhi Hong Kong Istanbul Karachi Kolkata Kuala Lumpur Madrid Melbourne Mexico City Mumbai Nairobi São Paulo Shanghai Taipei Tokyo Toronto Oxford is a registered trade mark of Oxford University Press in the UK and in certain other countries Published in the United States by Oxford University Press Inc., New York © The United Nations University/World Institute for Development Economics Research (UNU/WIDER), 2004 World Institute for Development Economics Research of the United Nations University (UNU/WIDER), Katajanokanlaituri 6B, 00160 Helsinki, Finland The moral rights of the authors have been asserted Database right Oxford University Press (maker) First published 2004 All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Oxford University Press, or as expressly permitted by law, or under terms agreed with the appropriate reprographics rights organization. Enquiries concerning reproduction outside the scope of the above should be sent to the Rights Department, Oxford University Press, at the address above You must not circulate this book in any other binding or cover and you must impose this same condition on any acquirer British Library Cataloguing in Publication Data Data available Library of Congress Cataloging in Publication Data ISBN 0-19-926865-7(hbk.)  $1 \ 3 \ 5 \ 7 \ 9 \ 10 \ 8 \ 6 \ 4 \ 2$ 

# Contents

List of Figures	vii
List of Tables	ix
List of Acronyms and Abbreviations	xi
List of Contributors	xiii
Acknowledgements	xvi
Introduction	1
Anthony Shorrocks and Rolph van der Hoeven1. Economic Policy, Distribution, and Poverty:	
The Nature of Disagreements	13
Ravi Kanbur	
2. Growth is Good for the Poor	29
David Dollar and Aart Kraay	
3. Growth, Inequality, and Poverty: Looking Beyond Averages	62
Martin Ravallion	
4. The Growth Elasticity of Poverty	81
Rasmus Heltberg	
5. Education is Good for the Poor: A Note on Dollar and Kraay	92
Erich Gundlach, José Navarro de Pablo, and Natascha Weisert	
6. Growth, Distribution, and Poverty Reduction: LDCs are Falling Further Behind	107
Felix Naschold	
7. Redistribution does Matter: Growth and Redistribution for Poverty Reduction	125
Hűlya Daleriren, Rolph van der Hoeven, and John Weeks	

### Contents

8. Producing an Improved Geographic Profile of Poverty: Methodology and Evidence from	
Three Developing Countries	154
Gabriel Demombynes, Chris Elbers, Jean O. Lanjoun, Peter Lanjoun, Johan Mistiaen, and Berk Özler	
9. Twin Peaks: Distribution Dynamics of Economic Growth across Indian States	176
Sanghamitra Bandyopadhyay	
10. A Decomposition of Inequality and Poverty Changes in the Context of	
Macroeconomic Adjustment: A Microsimulation Study for Côte d'Ivoire	197
Michael Grimm	
11. Educational Expansion and Income Distribution: A Microsimulation for Ceará	222
Francisco H. G. Ferreira and Phillippe George Leite	
12. Growth, Income Distribution, and Poverty: A Review	251
Arne Bigsten and Jörgen Levin	
Index	277

# List of Figures

2.1.	Incomes of the poor and average incomes	31
2.2.	Growth and distribution effects of policies	51
3.1.	Poverty tends to fall with growth in mean household income or expenditure	67
4.1.	Growth elasticities of $P_0$ for three countries compared	84
4.2.	Growth elasticities of $P_1$ for three countries compared	85
4.3.	Growth elasticities of $P_2$ for three countries compared	85
4.4.	Headcount poverty: Absolute change for South Africa	86
8.1.	Standard error as percentage of point estimate: Rural Ecuador, headcount	164
8.2.	Standard error as percentage of point estimate: Rural Ecuador, FGT2	165
8.3.	Standard error as percentage of point estimate: Urban Ecuador, headcount	165
8.4.	Standard error as percentage of point estimate: Urban Ecuador, FGT2	166
8.5.	Ratio of estimated standard error to point estimate: headcount	166
8.6.	Ratio of estimated standard error to point estimate: headcount	167
8.7.	Rural poverty by canton: headcount and poverty gap	169
8.8.	Firaisana level FGT0 estimates	170
8.9.	Firaisanas with FGT0 different than the FGT0 in their faritany	171
8.10.	Poverty within poverty: South Africa	172
8.11.	Poverty by area of aggregation: Headcount, rural Ecuador	173
8.12.	Poverty by area of aggregation: Headcount, Madagascar	173
8.13.	Poverty by area of aggregation: Headcount, South Africa	174
9.1.	Relative GDP per capita of Indian states, 1965–88	180
9.2.	Relative income dynamics across Indian states, 1-year horizon, (a) 1965-70, (b) 1971-80, (c) 1981-89	,
	and (d) 1990–97	183
9.3.	Relative per capita incomes across Indian states, (a) infrastructure, (b) capital expenditure, (c)	
	education, and (d) fiscal deficit conditionings	190
10.1.	Relative change of mean household income for each household income centile, when performing	
	the three counterfactual simulations for Abidjan using 1992 as starting point (smoothing by a	
	cubic spline)	215
10.2.	Relative change of mean household income for each household income centile, when performing	
	the three counterfactual simulations for rural areas using 1993 as starting point (smoothing by a cubic	2
	spline)	217
11.1.	CDFs of years of schooling in Ceará: Actual and simulated	232
11.2.	Earnings: Raising mean schooling to 7 years, $\beta_{99}$	237
11.3.	Earnings: Raising mean schooling to 7 years, $\beta_{concave}$	238
11.4.	Earnings: Raising mean schooling to 7 years, $\beta_{convex}$	238
11.5.	Earnings: Reducing illiteracy by 50%, $\beta_{99}$	239

11.6. Earnings: Reducing illiteracy by 50%, $\beta_{convex}$	240
11.7. Earnings: Reducing illiteracy by 50%, $\beta_{convex}$	240
11.8. Households: Raising mean schooling to 7 years, $\beta_{99}$	241
11.9. Households: Raising mean schooling to 7 years, $\beta_{\text{concave}}$	241
11.10. Households: Raising mean schooling to 7 years, $\beta_{convex}$	242
11.11. Households: Reducing illiteracy by 50%, $\beta_{99}$	242
11.12. Households: Reducing illiteracy by 50%, β <sub>concave</sub>	243
11.13. Households: Reducing illiteracy by 50%, β <sub>convex</sub>	243
11.14. Net entrance into the wage sector per percentile	244
11.15. Net entrance into self-employment per percentile	244

# List of Tables

2.1.	Sources for income distribution data	35
2.2.	Adjustments to Gini coefficients and income shares	37
2.3.	Basic specification	42
2.4.	Variants on the basic specification	44
2.5.	Growth determinants and incomes of the poor	47
2.6.	Growth and distribution effects	49
2.7.	Openness and incomes of the poor	54
2.8.	Other determinants of incomes of the poor	55
2A.1.	Variable definitions and data sources	57
3.1.	Diverse impacts on poverty coexist with aggregate distribution neutrality	69
4.1.	Summary statistics for income data	84
4.2.	Actual and required growth rates	87
5.1.	OLS estimates	99
5.2.	IV estimates	101
5A.1.	Country characteristics	102
6.1.	Data set used	111
6.2.	Poverty regressions: Results by income group	112
6.3.	Analytic consumption and Gini poverty elasticities	113
6.4.	Comparison of consumption poverty elasticities	114
6.5.	Incidence of poverty in 2015 as a percentage of incidence of poverty in 1990	116
6.6.	Number of poor	117
6.7.	Decomposing annual changes in poverty headcount and the poverty bias of growth	119
6.8.	Growth rates required to halve poverty by 2015	121
7.1.	Poverty levels by Gini coefficient and poverty line, estimated (in bold) and from	
	functional form, fifty countries	134
7.2.	Distribution and poverty statistics for fifty countries, 1980s and 1990s	135
7.3.	Impact of two growth patterns on poverty, fifty countries	137
7.4.	Impact of income redistribution on poverty by country	139
7.5.	Growth equivalents of 1 per cent redistribution from highest to lowest quintile	142
7.6.	Summary of feasibility of redistribution instruments by category of country	147
7A.1.	Country-wise tabulation of percentage of Gini coefficients	149
8.1.	Stratum-level poverty rates in Ecuador (headcount)	161
8.2.	Stratum-level poverty rates in Madagascar (headcount)	162
8.3.	Stratum-level poverty rates in South Africa (headcount)	163
9.1.	Interstate relative (per capita) income dynamics, 1965–97, first order transition matrix, time	
	stationary	181

9.2.	Interstate relative (per capita) income dynamics, 1965–70, 1971–80, and 1981–89 first order	
	transition matrix, time stationary	182
9.3.	Results of factor analysis	188
9.4.	Conditioning regressions (two-sided projections) of growth rate on capital expenditure	191
9.5.	Interstate conditioning on infrastructure transition matrix	193
9.6.	Interstate conditioning on capital and education expenditures and fiscal deficit, transition matrix	193
10.1.	Evolution of mean household income from 1992/3 to 1998	200
10.2.	Evolution of the distribution of household income from 1992/3 to 1998	201
10.3.	Evolution of the socio-economic population structure, 1992/3 to 1998 (population 12 years and	
	older)	203
10.4.	Wage equations, selection model (full MLE)	208
10.5.	Non-agriculture profit function, selection model (full MLE)	209
10.6.	Agriculture profit function, 2SLS model	211
10.7.	Decomposition by microsimulation of the change in the distribution of household income	
	per adult equivalent (Oxford Scale)	212
11.1.	Some basic statistics, Ceará, 1999	223
11.2.	The estimated earnings equations for Ceará, 1999	226
11.3.	The estimated occupational choice multilogit model	227
11.4.	The estimated demographic choice multilogit model	229
11.5.	The estimated ordered probit model for education	230
11.6.	Counterfactual distributions of individual earnings: Descriptive statistics	234
11.7.	Counterfactual distributions of household per capita incomes: Poverty and inequality	235
11.8.	Actual and simulated poverty profiles for Ceará	247
12.1.	Headcount index, selected years, 1987–98	252
12.2.	Population (millions) living on less than \$1 per day, selected years 1987–98	253

# List of Acronyms and Abbreviations

BNPP	Bank Netherlands Partnership Program
CAISTAB	Caisse de Stabilization
CFA	Communauté financière d'Afrique
CGE	Computable general equilibrium
DAC	Development Assistance Committee
DDSS	Direction de la Démographie et Statistique Social
DFID	Department for International Development
DNG	distribution-neutral growth
DSM	Direction des Statistique des Ménages
EA	enumeration area
ECV	Encuesta de Condiciones de Vida. Sample survey based on the Living Standards Measurement Surveys
	approach developed by the World Bank
EDG	equal distribution growth
ENV	Enquête de Niveau de Vie (INS survey)
EP	Enquête Prioritaire (INS survey)
EPM	The Enquête Permanente Auprès des Ménages
FGT	Foster, Greer, and Thorbecke
FGT1	headcount and poverty gap measure: Foster, Greer, and Thorbecke index 1984
FGT2	squared poverty gap measure: Foster, Greer, and Thorbecke index 1984.
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GIS	geographic information systems
Globkom	Swedish Parliamentary Commission on Global Development
GLSS	Ghana Living Standards Survey
GMM	generalized method of moments
HIPC	Heavily Indebted Poor Countries
IBGE	Instituto Brasileiro de Geografia e Estatística
IFI	international financial institution
IES	income and expenditure survey
ILO	International Labour Organization
INEC	Instituto Nacional de Estadistica y Census (National Statistical Institute of Ecuador)
INS	Institut National de la Statistique of Côte d'Ivoire
INSTAT	Institut National de la Statistique of Madagascar
LDCs	least developed countries

LSMS	Living Standards Measurement Study of the World Bank
MDG	Millennium Development Goal
MTEF	Medium-term expenditure framework
NAS	national accounts
NGO	non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OHS	October Household Survey
OLS	ordinary least squares
OPM	ordered probit model
PBG	poverty bias of growth
PCE	private consumption expenditure
PNAD	Pesquisa nacional por amostra de domicílios
POVCAL	Program for Calculating Poverty Measures from Grouped Data
ppp	purchasing power parity
PWT	Penn World Tables
SEWA	Self-Employed Women's Association
SOAS	School of Oriental and African Studies
UNDP	United Nations Development Programme
WDR	World Development Report

## List of Contributors

**Sanghamitra Bandyopadhyay** is a tutorial fellow in the Department of Economics and post-doctoral fellow at the Suntory Toyota International Centre for Economics and Related Disciplines, at the London School of Economics. She recently completed her Ph.D. studies on unequal economic growth across Indian states.

Arne Bigsten is a professor of development economics at Göteborg University. He has published extensively on income distribution and poverty, industrial development, trade, aid, and economic policy in less developed countries, particularly in Africa.

Hűlya Dağdeviren is a senior lecturer at the Business School of the University of Hertfordshire, UK. Her research interests include deregulation policies, capital accumulation and growth, income distribution, growth and poverty, and heavy indebtedness in the developing world.

**Gabriel Demombynes** is a Ph.D. candidate in economics at the University of California, Berkeley. He has worked at the World Bank on research related to the geography of poverty and inequality.

David Dollar is an economist at the Research Department of the World Bank.

**Chris Elbers** teaches international and development economics at the Vrije Universiteit of Amsterdam. His research includes environmental and development economics with emphasis on the analysis of poverty.

Francisco Ferreira is a senior economist at the Research Department of the World Bank and a regular visiting professor at the Pontificia Universidade Catolica at Rio de Janeiro. He has published widely on the economics of income distributions.

**Michael Grimm** is a research associate at the European Centre for Research in Development Economics (DIAL) in Paris. His research is concerned with the evaluation of distributional consequences of macroeconomic shocks and policies in sub-Saharan Africa.

Erich Gundlach heads a research group at the Kiel Institute of World Economics and lectures at the University of the Federal Armed Forces in Hamburg. He has published on topics related to globalization, the empirics of growth, and the economics of education.

**Rasmus Heltberg** is an economist at the World Bank, having previously taught development economics at the University of Copenhagen. His research has focused on poverty and inequality, rural development, property rights, and natural resource management.

**Ravi Kanbur** is the T. H. Lee Professor of World Affairs and Professor of Economics at Cornell University, having previously taught at the Universities of Oxford, Cambridge, Essex, Princeton, and Warwick. He has also served on the staff of the World Bank, including as the Chief Economist for Africa.

Aart Kraay is a senior economist in the Development Research Group at the World Bank. His research interests include international capital movements, growth and inequality, governance, and China's economy. He has taught courses in macroeconomics, international economics, and growth at Georgetown University and the Sloan School of Management at MIT.

**Jean Lanjouw** is a senior fellow in economic studies and governance studies at the Brookings Institution and a senior fellow at the Center for Global Development, Washington DC. She is an associate professor of economics in the Department of Agricultural and Resource Economics, University of California at Berkeley, and a research fellow of the National Bureau of Economic Research.

**Peter Lanjouw** is a lead economist in the Development Economics Research Group of the World Bank, and fellow at the Amsterdam Institute of International Development. He has taught at the Free University of Amsterdam and at the University of Namur. His research has focused on poverty and inequality measurement, as well as on rural development issues.

**Phillippe George Leite** is a fellow at the Department of Economics at the Pontificia Universidade Católica do Rio de Janeiro. His research has focused on various aspects of poverty and inequality measurement.

Jörgen Levin is a lecturer at the Department of Economics, Örebro University, Sweden. He has worked on various issues related to structural adjustment in Kenya and Tanzania. Currently he is working on a project analysing poverty reduction strategies and domestic resource mobilization in Kenya, Uganda, and Tanzania. Johan Mistiaen is with the Development Research Group of the World Bank. His current research focuses on poverty measurement issues, the geography of poverty, targeting, and policy impacts. Recently he has been working extensively on Madagascar and East Africa.

Felix Naschold is a Ph.D. student at the Department of Applied Economics and Management at Cornell University, having previously worked at the Overseas Development Institute in London and at the Ministry of Finance and Economic Development in Fiji. Key research areas include the dynamics of poverty and inequality.

**José Navarro de Pablo** is an economist at Group Public Policy International of UBS in Zurich, Switzerland. He has worked on topics such as globalization and wealth distribution, Japan's and China's economies, Japanese financial reform, and economic and financial integration in Asia Pacific. **Berk Özler** is an economist in the Development Research Group Poverty Cluster at the World Bank. His research interests include poverty mapping and the economics of education. Current research focuses on the relationship between local welfare and various social outcome indicators, such as individual health, crime, and targeting efficiency.

**Martin Ravallion** is Senior Adviser at the Research Department of the World Bank. His main research interests concern poverty and the policies for fighting it. He has written extensively on this topic and advised numerous governments.

Anthony Shorrocks is Director of WIDER, having previously held permanent positions at the London School of Economics and the University of Essex. He has published extensively on topics related to income and wealth distribution, inequality, and poverty, and has been working recently on various issues concerned with the social problems facing Russia in the post reform era.

**Rolph van der Hoeven** is Manager of the Technical Secretariat of the World Commission on the Social Dimension of Globalization, established by the International Labour Organization in Geneva. Previous positions include chief of the ILO's Macroeconomic Policy Unit and economic advisor to UNICEF. He is widely published on employment, poverty, inequality, and economic reform issues.

John Weeks is a professor of development economics at the School of Oriental and African Studies, and Director of the Centre for Development Policy and Research. His current research is on poverty issues, especially in the context of Poverty Reduction Strategy Papers.

**Natascha Weisert** is a student of international economics and international relations at the Graduate Institute of International Studies, Geneva. She is currently conducting research on the Argentine crisis for her master's thesis.

## Acknowledgements

This volume has its origins in an international conference on growth and poverty which took place in Helsinki in May 2001, and was attended by 150 persons from all around the globe. We would like to thank the paper presenters and other conference participants for their valuable contributions to the scholarly discussions, and the staff of UNU/ WIDER in Helsinki for their smooth running of the backstage arrangements. All helped to make the conference a great success.

We are grateful to the many people who were involved in the preparation of this volume. Tony Addison and Cecilia Ugaz assisted in the selection of papers. Numerous peer reviewers wrote anonymous reports on the draft chapters, offering incisive and useful comments on the substance and quality of each of the studies. We also thank the chapter authors whose careful attention to the points raised by the reviewers and editors significantly improved the quality of the published material. Adam Swallow liaised with Oxford University Press and ensured the efficient processing of the manuscript.

Special thanks are due to Anne Ruohonen, who handled most of the formatting and checking of the chapters, and to Lorraine Telfer-Taivainen, who not only had primary administrative responsibility for the original WIDER conference but also dealt with the final preparation of the manuscript.

Helsinki and Geneva

September 2003

Anthony Shorrocks Rolph van der Hoeven

### ANTHONY SHORROCKS ANDROLPH VAN DER HOEVEN

## INTRODUCTION

The relationship between growth, inequality, and poverty lies at the heart of development economics. It has been, and remains, one of the most controversial topics. Indeed, very few of the other core areas in development economics can compare with the shifts, reversals, and reaffirmations of views that have characterized the analysis of the interaction between growth, poverty, and inequality. Evidence that inequality and poverty rose in the 1980s and 1990s in many countries, including some of the OECD countries, rekindled the ongoing controversies, which have not so much evolved as fluctuated over the past 50 years.

From the 1950s to the early 1970s, the debate emphasized the likely trade-offs between growth and income inequality. This derived in part from Kuznets' famous 'inverted U-hypothesis', which posited that inequality rises during the initial phases of development and then declines after some crucial level is reached (Kuznets 1955). The idea of a trade-off between growth and inequality is supported by certain theories of growth. Kanbur (1998), for example, points out the obvious correspondence between Kuznets' empirical results and Lewis' labour surplus model (Lewis 1954). The latter predicts that in an economy with an 'unlimited supply of labour' the profit share rises relative to the wage share until the labour surplus is exhausted. Similarly, Kaldor's growth model, in which capitalists have a higher marginal propensity to save than workers, implies that redistribution in favour of profits raises the growth rate (Kaldor 1967). However, this model applies more to developed countries—where the functional distribution of income largely consists of wages and profits—rather than to developing countries.

The mood shifted in the 1970s when attempts were made to identify redistributive mechanisms which aid poverty reduction without hampering growth. Studies also began, for the first time, to emphasize non-income measures of poverty in the related 'basic needs' literature. This change of focus was relatively short-lived, and went into reverse with the rise of neoliberalism and the so-called 'Washington Consensus' in the early 1980s. Bolstered in part by the successful experience in East Asia, growth itself would be the main vehicle for poverty reduction, achieved through trickle-down mechanisms not always clearly specified.

The 1990s saw a number of challenges to both the neoliberal analysis and the earlier view of a trade-off between growth and equity. An expanding volume of empirical evidence showed no consistent relationship between growth, inequality, and poverty across countries and over time. At the same time, studies suggested that in many developing countries in Africa, in transitional economies, and in Latin America, stabilization and adjustment policies had an adverse impact on poverty and inequality or, at best, did little to improve the conditions of the poor. Furthermore, a consensus emerged that the 'high performing' Asian countries, prior to the financial crisis of the late 1990s, combined rapid growth of per capita income with relatively low and stable inequality.

The recent literature that challenges the trade-off and trickle-down approaches has its roots in the pro-distribution arguments of the 1970s which constructed a model of 'distribution with growth' in which social groups are distinguished by asset ownership or mode of access to assets. Growth and distribution were related through income linkages between social groups via connections between the labour and commodity markets. Simulation experiments with this model indicated that if aggregate productivity increased then redistribution would lead to substantial improvements in the incomes of not only the poor, but other social groups as well.

More recent contributions have built on these ideas of how inequality and poverty reduce the capacity for growth, and vice versa. They also argue that lower initial inequality raises the likelihood that growth will reduce poverty. However, it has also been noted that income inequality is relatively stable within countries, providing some support for the pessimistic conclusion that poverty will tend to persist as countries grow.

In recognition of the importance of these issues, UNU/WIDER organized a conference on growth and poverty in May 2001.<sup>1</sup> Its purpose was to review current thinking on the topic, to seek and encourage fresh research, and to bring researchers from different backgrounds together to discuss whether the relation between growth, poverty and inequality can be put into a sharper perspective for policy-making. About fifty papers were presented at the conference. This volume contains a selection of those papers together with other material linked to activities at UNU/WIDER.<sup>2</sup>

The volume starts with an essay by Kanbur which captures well the tone of the debate on poverty at the beginning of the twenty-first century. It reviews why, with so much new research and improved data, there is profound disagreement on crucial issues of growth, poverty, and inequality within academic circles, and among organizations and various groups active in the development field. Before spelling out the different perceptions towards growth, poverty, and inequality, Kanbur points out that there is now harmony on a variety of issues which were contentious a couple of decades ago. The fierce debates on growth and poverty have unfortunately tended to obliterate these areas of agreement. One consensus to have emerged is the view that improved education

<sup>&</sup>lt;sup>1</sup> This meeting was the first of a series of large-scale conferences at UNU/WIDER on poverty related issues, and focused on income poverty. Future meetings will give more prominence to the non-income aspects of poverty and well-being.

<sup>&</sup>lt;sup>2</sup> Three of the papers have recently appeared in academic journals. The remaining papers were refereed, rewritten, and edited for this volume.

and health should be regarded on a par with improved income when assessing poverty alleviation and the social progress outcomes of economic policy.<sup>3</sup> A second point of agreement is that transnational 'goods' or 'bads' such as environmental spillovers, unstable financial markets, or research into tropical agriculture and diseases, have enormous spillover effects, and that public intervention is needed in these areas.

The old 'market versus the state' debate provides a third example of converging views, with a clear acceptance that both markets and states are important. Development practitioners, including NGOs, have demonstrated very practical approaches, and divisions are far less than they were at the end of the Cold War. Another related area of agreement is growing recognition of the importance of institutions in regulating markets, constraining governments, and determining the interaction between households in the market place. These areas of recent agreement are very broad, of course, and disputes may well resurface if and when policies are actually implemented. Nevertheless, it is important to note that some degree of consensus has been reached in a number of areas.

# THE NATURE OF DISAGREEMENTS ON POVERTY AND GROWTH

Kanbur argues that much of the disagreement can be traced to differences in perspectives towards three key features of the framework of the debate, namely, aggregation, time horizon, and market structure.

As regards *aggregation*, progress in poverty reduction is often measured as the decline in the percentage of the population below a certain income poverty line, and much is made of the fact that according to this definition poverty has gone down in many countries. But such analysis needs to be qualified. First, the value of public services and access to market opportunities is rarely taken into account; often these services have deteriorated making people feel worse off. Second, a national poverty figure is composed from different groups (regional, urban-rural, gender) whose poverty experiences frequently move in opposite directions. Third, those working with the poor often think in terms of absolute numbers rather than percentages. While the percentage of the population in poverty may have gone down, absolute numbers may have remained stable or even increased, especially in countries with fast rates of population growth.

A second aspect concerns the length of the *time horizon*. For example, in discussing the consequences of trade reform, most commentators will have in mind a medium time frame. This is driven by the equilibrium theory on which many assumptions are based. Markets and factors of production need time to adjust to structural changes in the economy. Activists, however, are usually concerned with short-term aspects, not least because 'short-run survival trumps medium-term benefits'.<sup>4</sup> Yet, other groups

<sup>&</sup>lt;sup>3</sup> Education and health are seen as both desirable outputs as well as a necessary inputs. However, opinions remain divided on the relative importance of aspects of poverty which deal with processes of change such as empowerment, and the attention these should be given in policy formulation and budgetary allocations.

<sup>&</sup>lt;sup>4</sup> There is more agreement on this issue now, especially with regard to the 'safety nets' which are intended to compensate for short-term negative effects. But those concerned with negative effects argue that safety nets often cannot be put in place fast enough and cannot compensate for major structural imbalances which cause severe poverty.

have a much longer time horizon in mind, arguing, for example, that economic growth cannot be sustained given the environmental capacity of the earth. To achieve global poverty reduction such groups call for explicit redistribution from North to South as a substitute for substantial economic growth.

A third area of disagreement lies in the *assumptions of market structure*. Proponents of the optimistic view of events often assume a competitive market structure, with a large number of agents interacting without market power. Others, however, point to distorted market structures governed by big institutions and corporations (e.g. in the trade of many tropical products), the power of money lenders in villages, and the attitudes of large countries in trade negotiations, to give some examples. Kanbur argues that the perception of certain market structures determines the way in which the poor perceive the benefits and costs of policies such as trade liberalization, capital mobility, and privatization. He argues strongly for a more detailed analysis of the distributional consequences of economic policies in the context of non-competitive market structures.

In his final section Kanbur introduces what he calls the 'red herring' debate on growth. He cites empirical studies which demonstrate that growth is strongly correlated across countries and over time with reductions in national-level measures of income poverty. Such observations lie at the heart of the 'growth is good for the poor' position. He further argues that the group of analysts who have difficulty with this position never claimed that a zero growth rate is good for the poor, or that growth is always bad for the poor. What is at issue are the policies used to stimulate growth, and the fact that the 'growth is good for the poor' stance often implies policy packages prescribed by the international financial institutions and northern finance ministers. According to Kanbur, the real debate should focus on the alternative policy packages and their consequences for redistribution and poverty. Confusion on this issue is exacerbated by the common practice of using growth to mean both an increase in per capita income and as shorthand for 'growth-oriented policies'.

## DIFFERENT VIEWS OF GROWTH, INEQUALITY, AND POVERTY

The next six contributions in this volume (Chapters 2–7) deal with various aspects of the growth and poverty debate outlined by Kanbur. The first is the paper by Dollar and Kraay entitled 'Growth is Good for the Poor'. This study, which has provoked wide debate, observes that the average incomes of the poorest fifth of society rise proportionately with average incomes, a direct consequence of the fact that the share of income accruing to the bottom quintile does not vary systematically with average income. Dollar and Kraay document this empirical regularity in a large sample of ninety-two countries spanning the past four decades, and show that it holds across regions, time periods, income levels, and growth rates.

This finding is not entirely unexpected. In fact, in any long-run equilibrium the income share of the poorest quintile must be constant. The share cannot grow forever

at a positive rate, since the income share of the bottom quintile cannot, by definition, exceed 20 per cent. Nor can the share contract continuously without risking the likelihood that most or all members of the bottom quintile will be unable to sustain life. Distributional neutral growth, therefore, may be regarded as the norm. However, this observation does not imply that the income share of the poorest quintile cannot rise or fall in the short or medium term, or in response to particular circumstances or policies.

Dollar and Kraay go on to show that several determinants of growth—such as good rule of law, openness to international trade, and developed financial markets—have little systematic effect on the share of income of the bottom quintile. The authors, therefore, conclude that these factors benefit the poorest fifth of society as much as everyone else. The evidence also offers weak support for the view that stabilization from high inflation, as well as reductions in the overall size of government, not only raises growth but also increases the income share of the poorest quintile.

Finally, the authors examine several factors commonly thought to disproportionately benefit the poorest in society, such as public expenditure on health and education, labour productivity in agriculture, and formal democratic institutions. They find little evidence of their effects. According to the authors, the absence of robust findings indicates that relatively little is known about the broad forces that account for the cross-country and intertemporal variation in the share of income accruing to the poorest quintile. Based on these findings the authors argue that the growth enhancing policies of a good rule of law, fiscal discipline, and openness to trade should be at the centre of successful poverty reduction strategies.

The next chapter by Ravallion agrees that the poor in developing countries usually share in the gains from rising aggregate affluence and in the losses from aggregate contraction. He observes, however, that there are large differences between countries in how much poor people share in growth, and that there are diverse impacts amongst the poor in a given country. He argues, furthermore, that cross-country correlations are clouded in data problems and hide welfare impacts, and can therefore be deceptive for development policy.

Looking beyond the averages in the relation between poverty rates and growth, Ravallion emphasizes the importance of initial conditions. Ignoring extreme values, he finds that 95 per cent confidence interval estimates of the growth elasticity imply that a 1 per cent rate of growth in average household income will result in anything from a modest 0.6 per cent drop in the poverty rate to a more dramatic 3.5 per cent decline. Hence, the variance of the growth elasticity of poverty is extremely important.

Ravallion goes on to note that inequality increased in half of the cases with spells of positive income growth, which leads him to present a two-by-two classification of rising and falling household income and of rising and falling inequality. Amongst countries with rising average income and rising inequality, the median rate of decline in the proportion of the population living below the \$1-a-day poverty line was 1.3 per cent per year. In contrast, in countries with rising average income and falling inequality, the median rate of poverty reduction was seven times higher (about 10 per cent). In countries with falling average income and rising inequality poverty

rates rose by a dramatic 14 per cent, while in countries with falling average income and falling inequality, poverty rates rose by less than 2 per cent.

Ravallion argues further that, even when inequality is not rising, a high level of initial inequality can stifle prospects for pro-poor growth, as high initial inequality lowers considerably the growth elasticity of poverty. He goes on to point out that when negligible correlations are found between changes in inequality and indicators of policy reform, as in Dollar and Kraay, this does not imply as a matter of course that the outcomes of such reforms for the poor depend solely on the growth effects. Averaging across the diversity of initial conditions can hide systematic effects; in one group of countries initial conditions may ensure that the rich benefit, keeping inequality high, while in another group of countries initial conditions can lead the poor to benefit. In these circumstances, reform policies entail a sizeable redistribution between the poor and the rich, but in opposite directions for the two groups of countries. Across all countries one could then well find zero correlation between growth and changes in inequality, or discover that the average impact of policy reform on inequality is not significantly different from zero. Yet, these results mask the fact that non-random distributional change is going on below the surface. An example is trade liberalization, which has been shown to decrease inequality in some countries and increase inequality in others.

The next contribution is by Heltberg which elaborates the elasticity of poverty as discussed by Ravallion. Heltberg first reiterates that the magnitude of the elasticity of poverty with respect to distribution-neutral changes in mean income depends on the location of the poverty line and, hence, should not be treated as a constant across countries or time. It tends to increase monotonically with mean income, holding the poverty line constant and depends strongly (and negatively) on the degree of inequality. As a consequence, an unequal income distribution is a serious impediment to effective poverty alleviation. Heltberg infers from these observations that the 'growth versus redistribution' dichotomy is misleading. Furthermore, he cautions against simplistically decomposing poverty changes into growth and distribution components, because the growth effect is itself a function of the degree of inequality. The manner in which growth and inequality interact to shape poverty is not additive. Heltberg admits that redistribution often has limited potential given existing structures, and that growth therefore remains a necessary condition for poverty alleviation. Yet, the level of inequality, and changes therein, still matter. This is because (i) for any given level of average income, the level of inequality affects the degree of poverty; (ii) inequality strongly affects the growth elasticity of poverty, with lower inequality contributing to an acceleration of poverty reduction for a given rate of growth; and (iii) if recent crosscountry regression studies are to be believed, initial inequality, especially asset inequality, is harmful for growth. For these reasons, Heltberg argues that inequality remains important, and that there is a continuing need to search for effective policies for reducing inequalities, or at least for preventing them from rising.

While Ravallion emphasizes the importance of initial conditions, and is therefore cautious against findings that 'no correlation means no impact (on poverty)', Gundlach, Pablo, and Weisert in Chapter 5 take issue with the finding by Dollar and Kraay that higher primary educational attainment of the workforce is not correlated

with increases in the income of the poor. They use a broader measure of human capital which accounts for international differences in the quality of education, and derive significant correlations suggesting that an increase in quality-adjusted education raises the relative income of the poor as well as average incomes. Thus, education is not distribution-neutral. It seems to improve the income distribution, allowing the poor to benefit disproportionately from growth. As a consequence, they support a focus of economic policies on education in order to reduce poverty and to speed up development.

## THE ARGUMENTS FOR INCREASED REDISTRIBUTION

In Chapter 6, Naschold observes that changes in consumption, income distribution, and levels of poverty are intrinsically linked. He uses three methods to assess the relationship between these variables across countries, concentrating in particular on the differences between countries at different stages of development. An important finding is that consumption elasticities of growth vary significantly between the least developed countries (LDCs) and other developing countries, a result strongly supported by all methodologies. In addition, he finds that the distribution of income matters for poverty reduction, particularly so in LDCs. Simulations of poverty trends suggest that for poverty reduction in this group of countries, changes in distribution can be as important as changes in the level of consumption. In order to make substantial progress towards halving poverty by 2015, Naschold argues that LDCs will have to improve the distribution of income (or at least prevent it from getting worse) as well as achieving higher rates of economic growth. While distribution issues are clearly important for poverty reduction, he concludes that we need to know more about what drives changes in inequality if we are to identify ways in which policy can support efficient improvements in the distribution of national income.

The next contribution by Dağdeviren, van der Hoeven, and Weeks, begins with an overview of past and present literature on inequality and poverty in general, and on methods and incidence of redistribution in particular, emphasizing the growing consensus that countries with relatively egalitarian distribution of assets and incomes tend to grow faster. They argue that reducing inequality cuts both ways. A pro-poor growth path not only directly benefits the poor in the short run, but also creates in each subsequent period the lower inequality initial conditions which enhance future growth prospects. The authors go on to show empirically that economic growth has tended to be no better than distribution-neutral (echoing the points made by Dollar and Kraay and Ravallion in the earlier chapters). This leads them to explore in more detail the relationships between growth, inequality, and poverty, and to carry out three simulation exercises based on: (i) a 1 per cent distribution-neutral increase in per capita GDP; (ii) a 1 per cent increase in per capita GDP distributed equally across income percentiles; and (ii) a 1 per cent redistribution of income from the richest 20 per cent to the poorest 20 per cent. Countries are then classified according to which of those three simulations yields the greatest reduction in poverty.

For the overwhelming majority of middle-income countries, the simulation exercises demonstrate that poverty reduction is most effectively achieved by a redistribution of current income. Redistribution with growth is the second best option, while distribution-neutral growth is a poor third. In contrast, low-income countries require a growth strategy. Nevertheless, for most of these countries redistribution with growth is more effective than the (distribution-neutral) status quo growth.

The authors conclude by discussing several policies that make growth more equitable. They point out that objections against redistribution in developing countries, based on the argument that redistribution is costly and requires a minimum set of administrative capacities, should be set against the fact that status quo economic policy making is also costly and requires a minimum set of administrative capacities. Hence, under both scenarios, one often needs to operate in a second best environment. Policies for redistribution should therefore also be pursued.

## POVERTY REDUCTION AND MICROECONOMIC ANALYSIS

The previous contributions emphasized that poverty can be reduced at a faster rate when pro-poor growth strategies are applied and when special redistribution policies are undertaken. However, as Ravallion and Dagdeviren *et al.* argue, there are no blanket policy proposals—the scope and nature of pro-poor growth strategies and of redistribution policies depend on the initial situation and on specific country circumstances. This, in turn, calls for improved microeconomic studies which can inform poverty analysis and contribute to the design of pro-poor policies. The next four chapters illustrate a variety of new approaches to distributional analysis.

Demombynes *et al.* use a new methodology in Chapter 8 to produce disaggregated estimates of poverty for three developing countries: Ecuador, Madagascar, and South Africa. The countries are very dissimilar—with different geographies, stages of development, quality and types of data, and so on. Nevertheless, the authors demonstrate that the methodology works well in all three countries and produces valuable information about the spatial distribution of poverty within these countries, information that was previously not available. Their methodology is based on a statistical procedure which combines household survey data with population census data, by imputing into the latter a measure of economic welfare from the former. Like the usual sample-based estimates, the poverty rates produced are also estimates and are subject to statistical error. They demonstrate that the poverty estimates produced from census data match well the estimates calculated directly from the country's surveys. The precision of the poverty estimates produced with this methodology depends on the degree of disaggregation. In all three countries the constructed poverty estimates produced with this methodology depends on the spread and relative magnitude of poverty across localities (as well as the precision of estimates) in a way

which is quickly and intuitively absorbed, particularly by a non-technical audience. Such detailed geographical profiles of poverty can inform a wide variety of debates and deliberations amongst policy-makers as well as civil society.

In Chapter 9, Bandyopadhyay describes the dynamics of growth and the convergence of real per capita incomes across Indian states over the period 1965–97, and then attempts to analyse some of the factors underpinning such income dynamics. A number of specific issues are addressed: the trend towards equality in the cross-sectional income distribution across Indian states; the possibilities for interregional mobility; and the persistence of differential growth performance.

Unlike standard practice, Bandyopadhyay examines interstate income inequalities in terms of the behaviour of the entire cross-sectional distribution. This approach essentially posits a law of motion of the cross section income distribution which allows researchers to study not just the likelihood, but also the potential causes, of poorer economies becoming richer than those currently rich, and of the rich regressing to become relatively poor. Over the period 1965–97, Bandyopadhyay finds a strong tendency towards polarization resulting from the formation of two income 'convergence clubs'; one at 50 per cent of the national average, the other at 125 per cent of the national average. Although cohesive tendencies were observed in the late 1960s, these weakened considerably with the reform policies of the following decades, with increasingly polarizing consequences. Unequal investment in infrastructure contributed significantly to the observed polarization, particularly with respect to the lower income club. Indicators of macroeconomic stability—principally capital expenditure and fiscal deficits—also help explain the lack of convergence and the trend towards polarization among Indian states.

The tenth contribution in the volume, by Grimm, analyses Ivorian income distribution data over the period 1992–98, and examines the link with the profound economic and sociodemographic changes which occurred in the 1990s, including the devaluation of the CFA franc in 1994 and the accompanying structural adjustment programmes. Microsimulations show that both the negative income growth in Abidjan and the positive income growth in rural Côte d'Ivoire were related to rising inequality. However, the devaluation of the CFA franc, and the structural adjustment programme (including the recovery of international aid), coupled with the price boom in the coffee/cocoa sector, caused a significant redistribution between rural and urban areas. Within-region inequality increased and between-region inequality decreased, leading to a rise in the proportion of the urban population among the poor.

Grimm's findings comply with most of the short and medium-term predictions of computable general equilibrium (CGE) models applied to the Ivorian case. However, recent movements in world prices of export crops show that a large part of the Ivorian population remains vulnerable to external shocks. Furthermore, the political instability evident since December 1999, and the subsequent freeze of international aid, discouraged and hindered private investment. In 2000 and 2001, Côte d'Ivoire experienced negative GDP growth, suggesting that the Ivorian economy today faces a crisis comparable to that of the early 1990s.

In Chapter 11, Ferreira and Leite ask whether more education really means less poverty, and undertake to answer this question by means of a microsimulation for

the Brazilian state of Ceará. They conclude that a rise in the average endowment of education resulting from a broadbased expansion of enrolment coupled with a reduction in dropout rates would very likely make a substantial contribution to poverty reduction. Just how substantial depends on the way in which the structure of returns to education develops over time. Increased enrolment and a reduction in dropout rates would not, however, have the same impact on inequality. While the simulated educational expansion would be moderately equalizing if returns flattened in the future, it would be neutral if returns did not change; and inequality would actually rise if returns increased at the same time as the expansion took place.

Their second conclusion is that a combination of policies which succeed in expanding education in a more targeted way would help make educational expansions more progressive. At best, an increase in mean schooling leads to a small reduction in inequality. A more targeted effort, focussing on reducing illiteracy and keeping in school those most likely to leave, can play an important role in reducing income inequality. So a targeted exercise should not be a substitute for, but rather a complement to, a broader expansion of educational opportunities. Ferreira and Leite stress that all results depend heavily on what happens to returns to education, which are determined by the interaction between the relative supply of and demand for different skills. Given that gains in labour earnings to the poor are very sensitive to changes in demand for unskilled labour, stagnation of demand for unskilled labour is of particular concern, but could not be modelled in the paper.

Household dynamics play a crucial role in the analysis. As women acquire education and enter the labour force, their fertility behaviour also changes, reducing the number of children in the family. In income terms, each of these tendencies is positive for the families to which they belong. The model attaches great importance to such gender-sensitive effects on the overall welfare of poor families. But a large supply of female labour may generate downward wage pressure or enhance job competition. The extent to which Ceará will be able to capitalize on a more educated labour force depends, in large measure, on how effectively it can produce an overall growth strategy generating sufficient labour demand.

These four chapters, all stress the importance of looking in more detail at the microeconomic aspects of poverty analysis, applying simulation techniques and other methods to household data. However, it is also recognized that the outcomes of microsimulation exercises are often very sensitive to macroeconomic and growth variables. Hence the need, as expressed in the papers of Kanbur, Ravallion, and Dağdeviren *et al.* to pay attention to the distributional effects of macroeconomic and growth policies, and not to take the distributional outcome of such policies for granted.

## POLICIES FOR POVERTY ALLEVIATION AND GROWTH

The final chapter by Bigsten and Levin reviews recent theoretical and policy research dealing with the relationship between economic growth, income distribution, and poverty. They do not find any systematic pattern of change in income distribution

during recent decades, nor any systematic link from fast growth to increasing inequality. In contrast to previous studies, they claim that the level of initial income inequality is not a robust explanatory factor of growth, but admit that some recent empirical studies have found a negative impact of asset inequality on growth. Possible channels for this are credit rationing, reduced possibilities for participation in the political process, and social conflicts. Among the strategic elements that have contributed to reduced poverty, Bigsten and Levin emphasize agricultural and rural development; investment in physical infrastructure and human capital; efficient institutions that provide the right set of incentives to farmers and entrepreneurs; and effective social policies to promote health, education and social capital, as well as safety nets to protect the poor. They conclude that growth can be substantial if the policy and institutional environment is right.

## CONCLUSION

The range of views covered in this volume makes a consensus of opinion unlikely. However, some general inferences can be drawn—the first being the difficulty of drawing general conclusions. Many of the chapters show that sweeping statements such as 'growth is good for the poor', 'education is good for the poor', or 'redistribution reduces poverty more than growth' can be supported by cross-country regressions. But since these observations have little or no policy implications, they tend to blur the debate on growth and poverty rather than illuminate it.

What the chapters in this volume show, each in their own context, is that initial conditions matter, specific country structures matter, and time horizons matter. Ravallion shows that initial conditions affect the speed with which growth can reduce poverty. Initial conditions and the structure of the economy also affect whether policies have a pro-poor or an anti-poor outcome—trade liberalization was mentioned as a case in point. Improved education is an end in itself, and can also contribute to reducing poverty; but its effect on inequality depends on supply and demand factors, which differ significantly across countries. Likewise, in some countries a redistribution of 1 per cent of income from the rich to the poor would reduce poverty more than a 1 per cent increase in total national income, but in other countries this is not the case. The later chapters in this volume support this attention to detail by illustrating how improved poverty analysis can better inform the debates on poverty.

Since the appropriate poverty reduction strategy is so country and context-specific, it seems clear that national creative solutions need to be encouraged. However, an emphasis on national policies also implies national ownership of such policies. While the term 'ownership' has recently acquired some negative connotations,<sup>5</sup> we use it here to refer to the benefits of ownership of policy analysis and an informed policy debate. Such a debate might hopefully lead to a more pro-poor set of development policies if consensus between different interest groups at the national level can be reached. It

<sup>&</sup>lt;sup>5</sup> In negotiations with developing countries, international financial institutions have often insisted that countries 'own' their economic and fiscal policies, although these may well have been drawn up by the IFIs themselves.

might also lead to a sharpening of the issues and the various policy options without reaching consensus. In both cases, issues of poverty and inequality will have been put at the centre of public concern.

It is the task of UNU/WIDER and other UN research institutes to assist in such a debate and this is what we have attempted to do with this book.

### REFERENCES

Kaldor, N. (1967). *Strategic Factors in Economic Development*. New York State School of Industrial and Labour Relations, Cornell University, Ithaca.

Kanbur, R. (1998). 'Income Distribution and Growth'. World Bank Working Papers 98–13, World Bank, Washington. Kuznets, S. (1955). 'Economic Growth and Income Inequality'. American Economic Review, 45, 1–28.

Lewis, W. A. (1954). 'Economic Development with Unlimited Supplies of Labour'. Manchester School of Economics and Social Studies, 22, 139–81.

# 1 Economic Policy, Distribution, and Poverty: The Nature of Disagreements

### RAVI KANBUR

## **1.1. INTRODUCTION**

The end of history lasted for such a short time. If the early 1990s raised hopes of a broad-based consensus on economic policy for growth, equity, and poverty reduction, the late 1990s dashed them. The East Asian crisis and the Seattle debacle saw to that. In the year 2000, the governors of the World Bank, whose mission it is to eradicate poverty, could meet only under police protection, besieged by those who believe instead that the institution and the policies it espouses cause poverty. The street demonstrations in Prague, Seattle, and Washington DC, are one end of a spectrum of disagreement, which includes vigorous debate in the pages of the leading newspapers, passionate involvement of faith-based organizations, and the genteel cut and thrust of academic discourse.

The last 2 years have seen my involvement in an extensive process of consultation on poverty reduction strategies.<sup>6</sup> The consultation reached out to most interested constituencies in the academic, policy-making, and advocacy communities. It covered the international financial institutions (IFIs) and the myriad UN specialized agencies, government ministries in the North and the South, northern aid agencies, academic analysts in rich and poor countries, northern and southern advocacy non-governmental