

Centre for the Study of African Economies
University of Oxford

Research Summary
2003





Centre for the Study of African Economies

Director: Professor Paul Collier

Research Summary 2003

**The CSAE is part of the Global Poverty Research
Group, funded by the Economic and Social Research
Council**

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List of abbreviations

AERC	African Economic Research Consortium
AAIS	Addis Ababa Industrial Survey
CERDI	Centre d'Etude et de Recherche sur le Développement International, Clermont-Ferrand
CPRC	Chronic Poverty Research Centre
CSAE	Centre for the Study of African Economies
DFID	Department for International Development
EPRC	Economic Policy Research Centre, Kampala
ESRC	Economic and Social Research Council
ESRF	Economic and Social Research Foundation, Dar es Salaam
GPRG	Global Poverty Research Group
IDPM	Institute for Development Policy and Management
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
ISAG	Industry Survey in Africa Group
JAE	Journal of African Economies
NIC	newly industrialised country
NGO	non-governmental organisation
OECD	Organisation for Economic Cooperation and Development
RPED	Regional Programme on Enterprise Development
SADC	South African Development Community
UNIDO	United Nations Industrial Development Organisation
WIDER	World Institute for Development Economics Research

Director's report

During the course of this year, I returned as director of the CSAE from the World Bank. A core commitment of researchers at the Centre is for their work to feed into the policy debate; I see it as one of my roles to facilitate that process. The Centre now has an increasing range of activities across geographical areas, disciplines and methods. At its core remain issues of development, with a particular focus on Africa. It is clear that to understand the issues that arise for Africa in the twenty-first century, it is necessary to engage in both comparative and multidisciplinary work. Some of my own recent research has focused on conflict and its impact on growth, a subject which is central to problems of development in some of the poorest countries in Africa and which is also of relevance to other developing countries. The mirror image of the impact of conflict on development is the role that growth can play in diminishing the probability of conflict. In many respects there is an increasing gap between Africa and other parts of the developing world. The dramatic transformation of the Chinese economy in the last two decades and the recent acceleration of growth in India mean not only that Africa is emerging as a poor continent but that the gap between it and other parts of the developing world is widening. In some cases there has been absolute, not simply relative, decline. Understanding this process and reversing it are central parts of our research agenda.

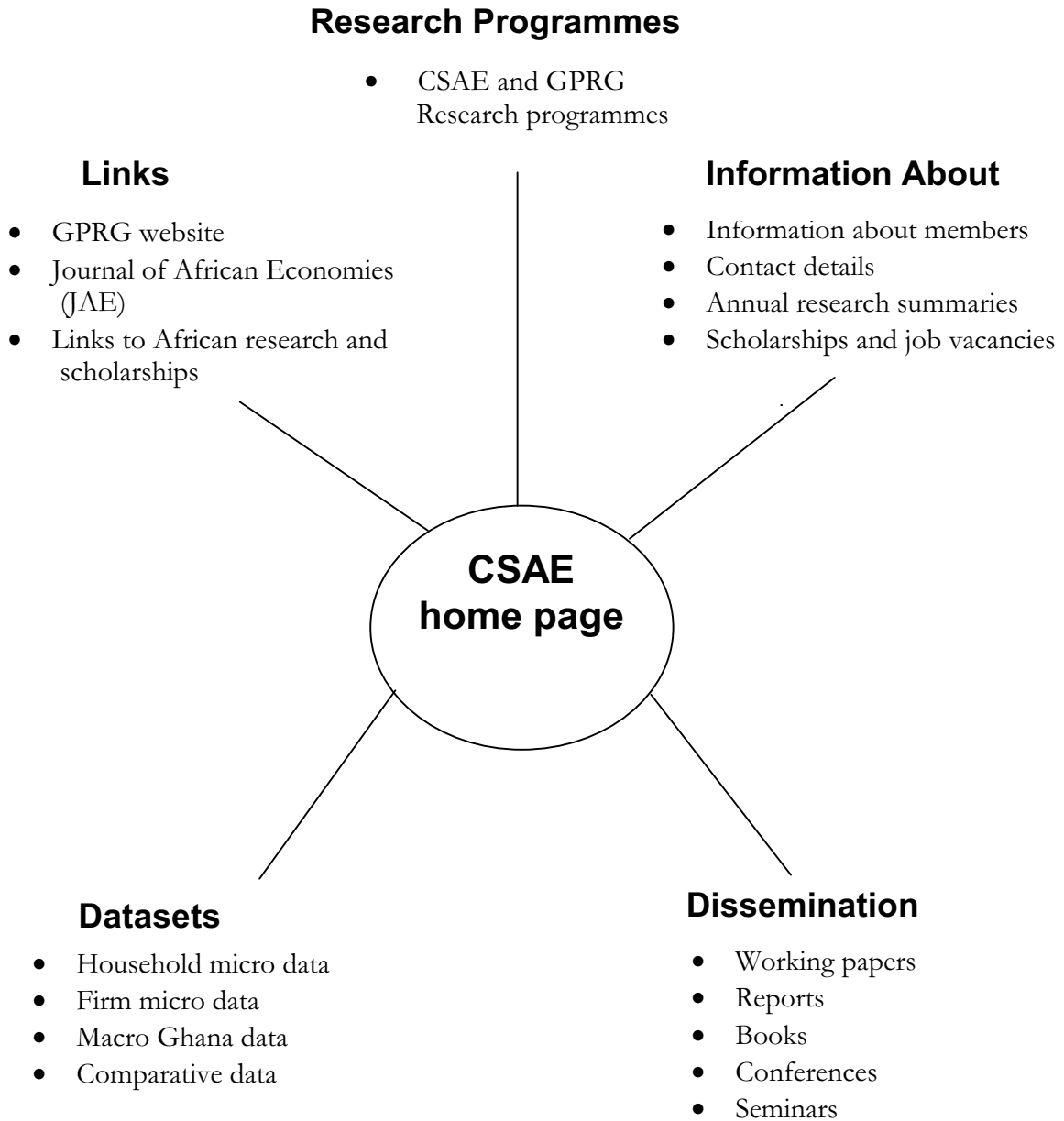
As well as such comparative work, the Centre has been developing its collaborative multidisciplinary work through the ESRC-funded Global Poverty Research Group. Funding for this research group has been confirmed until 2007. The group, which is jointly based at the CSAE and at the Institute for Development Policy and Management of the University of Manchester (IDPM), has been working on the agenda set by the ESRC for investigating both methodological and empirical issues in defining and measuring well-being. This work includes research on poverty in Tanzania and Ethiopia, work on human and social capital and extensive work on Indian education.

Several programmes running in parallel with the ESRC project also feed into our overall research objectives. Macroeconomic work on South Africa continues, as does the UNIDO-funded research programme on firm development in Africa. The work on inflation targeting in South Africa is being taken up by other countries in Africa interested in improving their frameworks for macro stability. In a presentation to UNIDO of CSAE work in the area of firm performance, I stressed the link from research to policy. Research which shows which firms fail, and why, is key to understanding the very poor record of firm growth in Africa. Other research on policy issues includes work on returns to education and on understanding the determinants of land and labour productivity in Ghanaian cocoa farms. The common factor across this range of work is the need to link excellence in research with policy-relevant issues.

My intention for the future of the Centre is to encourage the growth of its diverse range of activities by ensuring that there is a source of core funding that will enable the Centre to engage in the long-term research essential for informed short-term policy making.

Paul Collier, *Director*

The CSAE website



Data available on CSAE website

Six datasets can be downloaded from the site. For each set there are four components that the user can access: the dataset, documentation, programs and publications.

Ghana RPED data

This dataset contains comprehensive panel data on a sample of firms within the Ghanaian manufacturing sector. The data was collected in a series of three annual surveys undertaken in 1992–94 as part of the Regional Programme on Enterprise Development (RPED) organised by the World Bank. The data was collected by a team from the Centre for the Study of African Economies, University of Oxford, the University of Ghana, Legon, and the Ghana Statistical Office.

Firm-level data was collected for the period 1991–93 and data on a sample of workers and apprentices within each firm for the period 1992–94. The sample of over 200 firms surveyed is broadly representative of the size distribution of firms across the major sectors of Ghana's manufacturing industry, including food processing, textiles and garments, wood products and furniture, metal products, and machinery.

Ghana macro data

Ghana's exports on a per capita basis failed to grow over the course of the twentieth century. The reasons for this outcome are examined in this paper. It is argued that the success which characterised the period before independence was due to the combination of an open trade policy and flexible factor markets. The reversal of such policies at the time of independence was the source of the subsequent decline. While the terms of trade for Ghana's exports have fluctuated substantially there was little change in their level over the century. Economic failure since independence has been due to domestic policies which have limited export growth. The reforms of the post-1983 period have succeeded in preventing further decline; they have failed to provide a policy environment in which rapid growth of exports can occur. The nature of this policy failure is discussed.

Ethiopia AAIS data

This is the first wave of a panel dataset on a sample of firms within the Ethiopian manufacturing sector. The first round of the survey was undertaken in September–December 1993. The questionnaire structure and types of data collected were designed to be consistent with other African manufacturing sector surveys carried out under the RPED. The survey covers 220 firms that were selected on a random basis from manufacturing establishments in the Addis Ababa region, of which 30 are public enterprises.

Ethiopia ERHS data

The Centre is involved in the Ethiopian Rural Household Survey (ERHS), a unique data collection programme, in collaboration with the Economics Department and the Institute of Development Research, both of Addis Ababa University.

Since 1994 data has been collected on about 1450 households in 15 villages

across Ethiopia. The data forms a panel household survey. Two rounds took place in 1994, a third in 1995. A fourth round took place in 1997 in collaboration with the International Food Policy Research Institute. A fifth round was completed in 1999. About 350 households were also interviewed in 1989 by the International Food Policy Research Institute. Most of these households were included in the later surveys. The data for the 1989, 1994 (two rounds) and 1995 surveys is now available.

Comparative firm-level data (five sub-Saharan countries)

The data is that which underlies the paper 'Rates of return on physical and human capital in Africa's manufacturing sector', published in *Economic Development and Cultural Change*, July 2000.

The paper presents standard earnings and production functions for the manufacturing sector of five African countries, Cameroon, Ghana, Kenya, Zambia and Zimbabwe. The dataset is unusual in having measures of both physical and human capital.

Tanzania RPED+TMES data

RPED

This is a comprehensive panel dataset on a sample of firms within the Tanzanian manufacturing sector. This data was collected over the period 1993–95 in a series of three annual surveys, referred to here as Waves I–III, as part of the Regional Programme on Enterprise Development (RPED) organised by the World Bank and funded by bilateral donor governments. The data was collected by a team from the Helsinki School of Economics, in collaboration with the Tanzanian Confederation of Industries and the University of Dar es Salaam.

TMES

A fourth wave of the Tanzania Manufacturing Enterprise Survey (TMES) was conducted in late 1999, involving a team of researchers from CSAE and the Economic and Social Research Foundation (ESRF) in Dar es Salaam. This succeeded in revisiting 89 of the remaining RPED firms and interviewing an additional 103 replacement firms. Firm-level production and accounts data was obtained for 1996, 1997 and 1998, thus giving a maximum number of six observations per firm over the four waves of the survey. This dataset is directly comparable to and can be linked with Waves I–III of the RPED described above.

Section 1: The CSAE and economic research on Africa

The Centre for the Study of African Economies (CSAE) is part of the Department of Economics at Oxford University. From 1991 to 2001 it was a Designated Research Centre of the Economic and Social Research Council (ESRC) carrying out an extensive programme of research on Africa. It now receives ESRC funding as part of a research group with the Institute for Development Policy and Management (IDPM) at the University of Manchester. The funding runs until August 2007. This group has developed a programme of work investigating issues of poverty, inequality and the quality of life across Africa, South Asia and China. While the CSAE continues to specialise in the application of social science to African economies, the new research group opens up the opportunity to place this work in a comparative context. As well as from the ESRC, the CSAE receives funding from DFID, UNIDO and the World Bank. This research summary presents the results of the first year of the CSAE's contribution to the new ESRC research programme and reviews the other work undertaken at the CSAE. All the work has in common a concern to investigate issues and understand policies relevant to the welfare of Africa.

The Centre's objective has been, and remains, to make a significant contribution to the transformation of African economic performance. In order to meet this objective the Centre undertakes the following specific activities:

- Publishing significant theoretical and empirical findings
- Establishing itself as a focus of collaboration between researchers and users
- Seeking co-sponsorship
- Engaging with users
- Engaging in the training of postgraduate students.

The Centre is distinctive in three respects:

- Its research has required the collection of substantial amounts of primary data.
- It has sought to develop both micro and macro approaches to growth and poverty.
- Its work is collaborative between institutions and across disciplines.

Our objective in developing these three areas has been to build the research infrastructure that will allow us to pursue our primary research objective – the production of excellent research geared to an improvement in Africa's economic performance. This section of the research summary provides a brief overview of economic performance in Africa over the last decade to set in context the research undertaken at the Centre.

Economic performance in Africa

Africa is widely misunderstood. Its poor reputation is accentuated by the tendency of the media to focus on failure. African success stories and the extent of the improvement in economic performance in Africa over the recent past have not been widely appreciated. Two countries – Botswana and Mauritius – have achieved long-term success, the former by means of natural resource mineral exports, the latter in large part through manufactures. A third country, economically by far the most important in Africa, South Africa, has followed up a remarkable political transformation with a major refocusing of its trade policies from an inward orientation, with limited opportunities for growth, to one targeted on successfully integrating itself into the world economy.

South Africa is a good example of an important African country in which reform has led to improvements, particularly in macro but also in trade outcomes, where success has nevertheless been limited. The major area of policy concern remains the high unemployment level, the subject of much research at the Centre. South Africa is far from alone in taking the necessity for reform seriously. Several other African countries – Ghana, Uganda, Mozambique, Tanzania and Ethiopia – have all achieved a major turnaround in their trade performance and some improvement in their rates of overall growth.

Centre work has been focused in areas crucial to improving African economic performance. We will report on them in detail in the following sections. One of these areas comprises work on the preconditions for growth. In many of the African countries that have failed to generate steady and sustainable economic growth, war and civil conflicts have been a persistent or recurring problem. The CSAE has undertaken research on the economic causes and consequences of war and conflict in Africa. A second area seeks to identify the macro-level factors that lead to improved country performance, both in terms of refocusing broad government objectives and in detailed work on macroeconomic policy instruments. Another area covers work in the field of analysing policy impacts on poverty. Finally, we cover the work being done at the Centre on firm performance, which has been recognised by both UNIDO and the World Bank as providing a major extension of the knowledge base in this area, which is crucial for Africa's long-run success. In each of these areas CSAE staff can point to the publication of significant theoretical and empirical findings, the establishment of close collaboration between researchers and users, success in obtaining co-sponsorship and active engagement with users. Each of these is a means to the same end – the improvement of African economic performance.

Extending the knowledge base for Africa

Both microeconomic and interdisciplinary research rely on using data from households and firms. The Centre has been actively involved in a long-running panel data survey in rural Ethiopia and Zimbabwe. The firm studies carried out by Centre staff, or with Centre assistance, now cover Ghana, Ethiopia, Tanzania, Kenya and Nigeria. Comparative data on other countries – Burundi, Côte d'Ivoire, Cameroon, Zimbabwe and Zambia – has also been collated. In the areas of both household and firm data the Centre has developed extensive expertise in the design and implementation of questionnaires, data coding and field work.

The household data collection in Ethiopia is a panel that, for a subset of the sample, can trace households over the period from 1989 to 1996. For the main sample, which covers 1477 households, detailed panel data has been collected over five rounds. Plans are in place for a follow-up to the survey. This dataset has formed the input into research on risk, insurance and poverty dynamics.

Two rounds of a survey of Ethiopian manufacturing firms have been completed. In Ghana, six rounds of a similar survey were carried out from 1992 to 2000, providing a dataset spanning nine years from 1991 to 1999. During 2003 a seventh round of the survey was begun which will allow us to track firms over the period from 2000 to 2002. A survey of Tanzanian firms was conducted in 1999 that followed up firms first interviewed in the early 1990s. This data allows an analysis of the impact of the reform programme in Tanzania on its manufacturing sector. In the year 2000, a follow-up survey of Kenyan firms first interviewed in the early 1990s was carried out. In the case of both the Tanzanian and Kenyan surveys, substantial success was achieved in providing a link between firms over the decade. During 2001, the CSAE collaborated with the Regional Industrial Development Centre (RIDC), Lagos, on a manufacturing survey in Nigeria. In 2002, a further follow-up survey of Tanzanian firms was carried out, enabling a long panel to be created. Firm-level data for the countries has been used to investigate firm growth, labour market outcomes and skill formation. These firm- and household-level datasets are unique within Africa.

Researchers at the CSAE over the past two years have further extended the work on data collection by carrying out surveys of coffee farmers and NGOs in Uganda and cocoa farming in Ghana. Reports on the work on cocoa and coffee are in preparation. A report on the work on NGOs in Uganda can be found in the reports section of the CSAE website: Abigail Barr, Marcel Fafchamps and Trudy Owens, 'Non-governmental organizations in Uganda: A report to the Government of Uganda'.

Impacts on poverty

Research on rural households in Ethiopia was based on data collection from a number of villages that had suffered in the 1984/5 famine, and that have been periodically resurveyed to create a panel dataset. These villages, though not representative of Ethiopia in general, experienced a marked reduction in poverty, by and large. It was possible to link this reduction with changes in relative prices that changed the returns to land, labour, human capital and location. The price changes in turn could be linked with economic reforms undertaken at the macroeconomic level. The reforms led to increases in producer prices and improved the incentives for market-based economic activities, aided by increased security. Although poverty persisted unchanged in some villages, in most, welfare improvement occurred as a result of the pro-poor impact of the reforms undertaken.

In Zimbabwe, the dataset covers a sample of resettlement farmers and is the longest-running panel dataset in sub-Saharan Africa, covering 1983 to 1996. Over that period, there has been an impressive accumulation of assets – land, tools and oxen – as well as a dramatic increase in per capita gross crop income. The underlying cause of this growth is an increase in the efficiency with which the farms operate. The households that were initially poorest achieved the largest

percentage increases in growth, so that growth has been accompanied by the convergence of incomes. The initial differences in household characteristics turned out to have few persistent effects.

In another element of the Zimbabwean research, a five-year household panel dataset was interrogated to estimate the poverty-reduction impact of development aid. The results of this exercise indicated that switching aid from drought relief to development assistance that augmented the capital stock of poor farmers had strong effects in reducing the incidence and severity of poverty.

The performance of firms

How have manufacturing firms in Africa responded to economic reforms in the trade and financial sectors? Ten years ago, that question would have been impossible to answer, because the data simply did not exist. Now it does, primarily as a result of ESRC research centre funding. We believe the answers to this question are important for research on Africa, for research on firms and for a wider understanding of how labour markets operate. In each of these areas important progress on policy advice and implementation has been made. Work on this question has shown that the investment response to reform has been extremely weak, not because credit constraints – a near universal theme of the non-quantitative literature – but because of the high capital costs faced by firms. It has been shown, using data from five countries, that differences in firm-level productivity are determined by differences in the endowment of physical capital per employee much more than by differences in human capital. Rates of return on physical capital far exceed those on human capital, implying that the stress commonly laid on the importance of human capital investment in improving firm performance may be misplaced.

Another subject area where the Centre's work has provided important new insights is exporting. It is well known that African manufacturing firms are negligible players in the world market. What the firm-level surveys have shown is that most large firms (those with more than 100 employees) do export to some extent. Most firms are small, so it is quite correct to argue that exporting is unimportant. However, this research has refocused the policy question. Why do small firms not grow to become large firms? Why is exporting so limited for those that do export? These are the questions which form the focus of current research, reported below.

Interdisciplinary research

The Centre's work has, since its inception, been collaborative between institutions and across disciplines. Under the new funding from the ESRC we have extended both these aspects of the Centre's work. The collaboration with IDPM at Manchester has enabled the Centre to link with sociologists, political scientists and anthropologists who have research interests in many of the areas on which CSAE staff are working. The IDPM is part of the University of Manchester's Faculty of Social Sciences and Law (FSSL), which has a long and respected record of work in the sociology and social anthropology of development. A particular emphasis of the Manchester researchers, based at IDPM and the Department of Sociology, is their use of qualitative and participatory research methods. They have played a major role in tracking the multiple livelihoods of the poor by means

of life histories. They have developed methods that allow concepts of capabilities to be assessed empirically, particularly in relation to the poor. For example, current work involves researchers and impoverished respondents collaborating to write detailed diaries of their financial transactions in the context of livelihood strategies.

Over the last decade, IDPM has built its research strengths in the area of poverty analysis and policies. This has culminated in the establishment of the Chronic Poverty Research Centre (CPRC), funded by the Department for International Development. For the period 2000–5, CPRC will be funded by the amount of £2.5 million and will operate through a research network covering East Africa, Southern Africa and South Asia, as well as partners in the UK. The work of CPRC researchers and partners will feed directly into the work of the proposed research group, and expand its opportunities to influence and learn from priority user groups. Through its applied policy activities, IDPM has very strong links with the user community. These include policy makers, aid donors, policy campaigners and managers of poverty reduction programmes. It is well known for its close relationships with NGOs in Europe and developing countries.

The CSAE has worked on a range of issues which we believe complement and extend the work being undertaken at IDPM. Several CSAE staff are currently working in the area of social capital, an active area of interdisciplinary research. The Centre is part of the American academic networks on social capital and is actively involved in applying the concepts to Africa. Marcel Fafchamps has much experience in interdisciplinary work and is an active participant in social capital research. Innovative research projects on social capital have been funded by DFID and by the World Bank.

Strategy for engagement with research users

The research of the Centre is both disseminated to users and informed by their requirements. The networks that the Centre has sought to build include users, collaborators and contacts. These networks are a key element in both formulating and disseminating research.

Dissemination is achieved by targeting users of the research through a programme of seminars, conferences, presentations and publications which permit extensive interaction with users drawn from business, government agencies, NGOs, policy research institutes and international organisations. Business groups that have been targeted include the British Africa Business Association, private investors in Africa and British exporters. Agencies of governments within Europe, agencies of the US government, the European Union and African governments are all users of Centre research. NGOs and policy research institutes from within Africa have been targeted by means of formal protocol agreements establishing links with the Centre, which are described below. International organisations which have been targeted as users of Centre research include the World Bank, the IMF, the African Development Bank and the Economic Commission for Africa.

The CSAE's strategy for interaction with users and dissemination has the following components:

- The Centre participates in a range of networks which facilitate its work. To

further the development of these networks, the Centre has entered into a series of protocol agreements with institutes and government departments in Africa to facilitate the formulation and use of the research undertaken at the Centre for policy purposes.

- A series of publications disseminates the work of researchers at the Centre, its research associates and others.
- Contacts have been made with business organisations with an interest in Africa. These organisations include business associations and firms working in Africa.
- An international conference is held each year. This focuses on a major aspect of the Centre's research and brings together academics, policy makers and private business groups.
- Centre members give seminars and presentations to business organisations, firms, policy makers, other universities, government departments, international organisations and others concerned with issues of development in Africa.
- The Centre has an active programme for enabling short-term visitors to interact with researchers and for providing a link between its researchers and those active in policy making.
- The Centre has been engaged in substantial teaching and training outside Oxford.
- Contract work has been undertaken which draws on Centre research and which feeds directly into policy issues.
- The Centre has a website which contains its Working Papers, data from its survey programme, and details of econometrics techniques of particular use to those working on Africa.

Networks

The networks which the Centre has sought to establish have an institutional, a geographical and a project focus.

UNIDO

In October 1999 the Director General of UNIDO, Dr Carlos Magariños, and the Vice-Chancellor of the University of Oxford, Dr C. R. Lucas, signed a Memorandum of Understanding formally indicating the components of a joint two-year research programme between UNIDO and the CSAE on industrial economics in Africa. In 2002, this was extended by another two years. The four main components of this programme are: research on the microeconomics of African industry; collection of primary firm-level data through industrial surveys in Africa; policy briefings for UNIDO senior management; and training of UNIDO staff and African civil servants. These activities are undertaken by a research fellow at the Centre, funded by UNIDO, in collaboration with Centre members. During the course of the year substantial progress was made on each of these four components by Måns Söderbom, who was appointed to the fellowship in April 2000. Research during the current year is reported on in section 3.

Africa

The CSAE has a long-standing collaboration with the African Economic

Research Consortium (AERC), based in Nairobi. Centre staff work with the AERC in a wide range of activities to build an international network of research, training and teaching. Particular emphasis has been placed on African academics: they have a crucial role to play in developing an informed constituency within the continent. A number of Centre staff attend the AERC's meetings and make important contributions to both the design and the evaluation of the research programme. The AERC sponsors visiting academics and doctoral students at the CSAE. The AERC and the CSAE have jointly researched trade liberalisation and regional integration.

While the AERC is the most far-reaching of the institutions with which the CSAE collaborates, the Centre has entered into a number of protocol agreements with institutions in individual countries in order to facilitate its research and enable Africans to participate fully in the work. The CSAE has entered, during its time as an ESRC Research Centre, into the following protocol agreements:

- with the Economics Department at the University of Addis Ababa, covering interaction between members of the Centre and the Department, and providing links with domestic policy makers;
- with the Ministry of Finance of the Government of Zambia to provide advice on macroeconomic policy;
- with the governments of Zambia and Uganda to build a computable general equilibrium model focusing on macroeconomic policy issues of adjustment, investment and growth. The Uganda project is in collaboration with the Free University of Amsterdam;
- with the Statistical Office of the Government of Ghana for collaboration in the collection and dissemination of information on the country's manufacturing sector;
- with the Economic Policy Research Centre, Makerere University, Kampala for collaboration: a staff member of the EPRC is studying for a doctorate at Oxford and CSAE staff regularly visit the EPRC;
- with the Economic and Social Research Foundation (ESRF) in Dar es Salaam to conduct a series of surveys on the Tanzanian manufacturing sector.

The CSAE has also carried out joint research work with academics from Kenya, Tanzania, Nigeria, Ghana, Zambia, Zimbabwe, Mozambique, Sudan and South Africa.

A network for the analysis of rural surveys

A network linking researchers in Europe, Africa and the US has been established to facilitate the analysis of rural surveys in Zimbabwe. This network has been organised by Bill Kinsey, who works at the University of Zimbabwe. The Centre participates in this network, which includes researchers from Amsterdam, IFPRI in Washington, and Zimbabwe. The dataset is by far the longest panel of household data available for the analysis of household welfare in Africa.

A network for the analysis of industrial surveys

At the April 1996 conference at Oxford, financed by the Overseas Development Agency (now DFID) it was agreed to pool the data from firm-level manufacturing surveys to enable further comparative work to be carried out on the datasets. This

resulted in the formation of the Industry Survey in Africa Group (ISAG). The ESRC mid-term review of the Centre stressed the need to extend the research to comparative, cross-country analysis. This has led to collaborative work on panel datasets for manufacturing firms, partly collected in the context of the World Bank RPED (Regional Programme on Enterprise Development) study. The countries covered include Ghana, Zimbabwe, Kenya, Cameroon, Zambia, Burundi, Ethiopia and Côte d'Ivoire. In each of these countries about 200 firms were studied. Data was collected on the constraints facing firms, their investment behaviour, financing, the skills and wages of the labour force, the social networks of the entrepreneurs, and the problems encountered in contract enforcement. The group met regularly.

The group at present contains the following members:

Arne Bigsten; University of Göteborg.

Paul Collier, Stefan Dercon, Marcel Fafchamps, Måns Söderbom, Francis Teal; University of Oxford.

Bernard Gauthier, Michel Sylvain; Ecole des Hautes Etudes Commerciales, Montréal.

Jan Willem Gunning, Remco Oostendorp; Free University, Amsterdam.

Abena Oduro; University of Ghana, Legon.

Cathy Pattillo; Research Department, IMF.

Albert Zeufack; World Bank.

Publications

The publications of the CSAE seek to disseminate research to the wider community and to stimulate debate on African policy issues. The CSAE undertakes the following four major sets of publications:

- The *Journal of African Economies (JAE)*, launched jointly with Oxford University Press in 1991. The Journal has established itself as the principal forum for applied economic research on African economies. DFID has given financial support for distributing *JAE* within Africa.
- A twice-yearly supplement to the Journal which brings together the papers presented at plenary sessions of the AERC.
- A Working Paper Series which allows CSAE researchers to present sometimes preliminary versions of their research to a wider readership.
- A series of monographs on African economies published in partnership with Macmillan (now appearing under the Palgrave imprint).

Conferences

During the last decade the conferences organised by the Centre have expanded in size and range. They have included the following. In April 1996 the CSAE collaborated with Queen Elizabeth House to host a conference on micro and macro aspects of investment in Africa and Latin America. The CSAE held an international conference in April 1997 to celebrate its tenth anniversary by providing a forum for academics and policy makers to learn about, and contribute to, research on Africa. In April 1999 a conference jointly organised with NGOs focused on policy issues of concern to NGOs.

The 2001 conference, 'Development Policy in Africa: Public and Private

Perspectives’, was held at Keble College, Oxford, from 29–31 March. The conference was designed for academic, government and private-sector participants, and examined many of the major economic and commercial issues currently facing Africa. It provided a broad focus from different perspectives on Africa’s business future, and was aimed at both first-time investors in Africa needing to weigh up business opportunities, and seasoned Africa experts wanting to expand their knowledge. The conference was addressed by HE President Festus Mogae of Botswana. The perspective of donors was given by Clare Short, then the Secretary of State for International Development, while the views of governments in Africa were represented by Chief Philip Asiodu, the Chief Economic Adviser to President Olusegun Obasanjo of Nigeria.

During 2002 the CSAE hosted two conferences in Oxford. The first, held in March, was a large international conference on the subject ‘Understanding Poverty and Growth in Sub-Saharan Africa’. The objective of the conference was to provide a forum for all those interested in poverty in Africa to provide both general and specific analysis of the sources of continuing poverty in Africa. A very wide range of papers were presented in numerous sessions, the first of which was entitled ‘Poverty in Africa: The Big Picture’. This set the scene for sessions dealing with innovation and investment, credit and assets markets, and labour market issues. All had in common a concern with policy issues related to poverty and growth. Papers at the conference were not confined to economic topics. There were sessions on health care and HIV/AIDS, on the social and moral dimensions of behaviour and on social capital, and a particularly wide-ranging session on conflict and post-conflict issues.

The second conference, held in September, was on ‘Spatial Inequality in Africa’ and was hosted jointly with WIDER who have been organising a series of conferences on Spatial Disparities in Human Development. This conference provided a forum for speakers drawn from Europe, Africa and the US to discuss detailed micro work on numerous African countries, including Ghana and Uganda. The role of the spatial dimension in understanding poverty is not well understood and this conference offered an exciting opportunity to push forward the frontiers of research in this area.

The major conference of 2003 in which the CSAE participated was hosted by IDPM in Manchester and entitled ‘Staying Poor: Chronic Poverty and Development Policy’. More than 350 researchers and policy influencers from 60 countries participated in the conference. Participants included the Minister of Finance of Uganda, the World Bank’s Head of Research, the author of Bangladesh’s Poverty Reduction Strategy Paper and leading scholars from Africa, Asia, Latin and North America.

Multidisciplinary workshops

Several multidisciplinary workshops have been held since the formation of the Global Poverty Research Group. An inception workshop was held in April 2002 at St Antony’s College, Oxford at which it was agreed that meeting regularly to discuss current research was to be a vital part of the Group’s work. The first full workshop under the new project was held in Oxford in October 2002. The second was held as part of the CPRC conference at Manchester in April 2003 (see above), which provided an opportunity for the GPRG members to discuss their

work with a wide field of researchers and policy influencers. There were also workshops in July 2003 in Oxford and December 2003 in Manchester.

The objective of these workshops is to exchange ideas between researchers in different disciplines, and in the different locations of Manchester and Oxford on the methodological problems of describing and measuring poverty and well-being.

At the workshop in July 2003, four papers were presented and discussed:

'Local identities of poverty: Poverty narratives in decentralized government and the role of poverty research in Uganda', *Philip Woodhouse. Discussant: John Knight.*

'Research on the politics of chronic poverty in Uganda', *Sam Hickey. Discussant: John Toye.*

'Well-being poverty versus income poverty and capabilities poverty?', *John Knight and Geeta Kingdon. Discussant: Wendy Olsen.*

'Pluralism, tenancy and poverty: Cultivating open-mindedness in poverty studies', *Wendy Olsen. Discussant: Marcel Fafchamps.*

The group has evolved a system by which papers of the group are critically evaluated by members of the group from other disciplines. This has worked well within the workshops and has been the basis for the first of the joint outputs of the group.

Seminars and presentations

The CSAE holds two seminars a week in Oxford during term-time, primarily aimed at academics. These seminars, given by Centre researchers and by others drawn from the national and international academic community, provide reports on work in progress as well as presenting material prior to publication. Centre members have also made many presentations during the course of the year to the political, business and academic communities.

Training and teaching at the Centre

Museveni Scholarship

The Centre for the Study of African Economies invites applications for a scholarship of £10,000 to support Africans wishing to pursue economic research at the University for the degree of Doctor of Philosophy (DPhil). Candidates will be drawn from students accepted for DPhil research by the University of Oxford. The thesis topic should be of relevance to African economies. Museveni Scholars will be attached to the CSAE and will usually be supervised by members of the research team. This funding is made available to the Centre as a result of a very generous donation from the Government of Uganda.

Applications must include a copy of your research proposal, your CV, and details of any other funding applied for or obtained for your DPhil studies. They should be sent to the Administrator, CSAE, Department of Economics, Manor Road Building, Oxford, OX1 3UQ.

The doctoral programme

The core funding for long-term research has enabled the CSAE to build up a substantial doctoral programme: there are currently 17 doctoral students from around the world. The facilities offered to each student include an on-line workstation linked to both the departmental network and the internet. A Resource Centre, weekly study groups and other activities have helped to build up a supportive graduate community. There follows a brief description of the thesis topics of the DPhil students attached to the Centre.

Tessa Bold

‘Economics of informal insurance arrangements’

Based on a unique survey of 78 burial funds in rural Ethiopia, the thesis explores the functioning of informal insurance groups in developing countries. A model of endogenous group formation is developed which can explain both the limits to group size and coverage offered by informal insurance arrangements. The model is then used to understand how best to design complementary outside credit and insurance products and to evaluate the welfare effects of introducing such products. Empirically, the funeral insurance survey has been matched with the Ethiopian Rural Household Survey (ERHS), to explore issues of composition of group membership, in particular which members of the community are excluded and whether there is evidence of assortative matching within groups.

Cesar Calvo

‘Risk and poverty in urban areas’

The perverse effects of uninsured risks on the economic behaviour of poor farm households have been well explored. Consensus among these studies establishes that, although poor families develop informal risk-coping mechanisms, they fail to reach complete insurance. In turn, this failure leads to inefficiency in their investment decisions, and precludes them from escaping poverty. This research intends to contribute to the understanding of similar risk-based poverty traps in urban areas. The urban poor face specific risks, such as crime, corruption and lack of legal protection, and it is expected that modelling them and quantifying their effects will lead to insights into the dynamics of urban poverty and to policy implications in the fight against it. Data from Peru will be used in the empirical analysis.

Sutapa Choudhury

‘Policy responses to the impact of HIV/AIDS: The education sector in Malawi’

This thesis starts with an analysis of the assumption that HIV/AIDS is having a profound impact on the supply and quality of education in Malawi. It then examines the processes behind the policy response to HIV/AIDS within the education sector, using a post-positivist model of policy making as a framework for analysis. It is argued that power is contested throughout the policy process, and that, as policies become increasingly universalised, these power struggles take place at and between the local, national and international levels. The processes that went into the drafting of the education sector’s main policy document, *The Strategic Plan*, are used as a case study to address the following issues: why, how

and by whom certain discourses become dominant in conceptualising HIV/AIDS, and the implication of the definition of the problem for the type of response, and to what extent research, data and scientific knowledge inform the policy response.

Victor Davies

‘Civil war, private portfolios and growth in Africa’

The thesis will provide analytical insights and empirical evidence on civil war, private portfolios and growth in Africa. It will investigate the following questions. How much capital flows out during civil war? How much comes back and what is that contingent upon? In addition, there will be econometric analysis of the relationship between capital flight and civil war. The thesis will look at the relationship between capital flight and growth using a worldwide sample of countries and the hypothesis of two-way causality will be tested. Finally, a theoretical model will be developed to analyse the implications of attitudes to risk and domestic market access conditions for the exploitation of diamonds in Sierra Leone, a country confronting all the problems studied in the thesis.

Guarav Ganguly

‘Trade and investment in developing countries’

Increased openness to international trade is seen as an important prerequisite for economic success in developing countries, but the exact channels through which the benefits of trade accrue remain unclear. Employing a GMM (Generalised Method of Moments) framework and alternative panel data estimators, this thesis probes the effect of openness to trade on investment in developing countries, from both macro and micro perspectives. The macro part of the thesis looks at the nexus between trade, investment and uncertainty for a large panel of developing countries, while the micro section focuses on Ghana and seeks to investigate the links between export performance and investment using firm-level data.

Ruth Vargas Hill

‘Price risk and production decisions among Ugandan coffee farmers’

In Uganda, liberalization of the coffee market has resulted in farmers receiving a higher share of the export price for their coffee – both increasing the average price they receive for their produce and the extent to which they face the volatility of the international price. Using original survey data collected at all levels of the value chain (exporters, traders and coffee-producing households), the thesis examines the process by which changes in international commodity prices are reflected in domestic prices, and shows the transmission mechanism to be different from what is typically assumed. Marketing decisions of coffee farmers are crucial in this context, and these decisions are also examined. The majority of these coffee producers are smallholders, and the thesis looks at how their perceptions of current price risk and risk preferences affect their production and investment decisions.

Godius Kabyarara

‘Determinants of real wages and productivity in Tanzania manufacturing’

enterprises’

This thesis analyses the determinants of real earnings and productivity in Tanzania manufacturing enterprises. The analysis is organized into three chapters. The first chapter examines the impact of schooling and job training on real earnings in Tanzania manufacturing enterprises. Specifically, it compares the effects on earnings of schooling and training, by which is meant attending any formal job-related training course, and other forms of learning captured by measures of tenure and experience in the earnings function. The second chapter examines the impact of learning on productivity in Tanzanian manufacturing enterprises. The third chapter assesses the impact of pay method and work supervision on worker earnings in Tanzania manufacturing over the period 1990–2002.

Mizyho Kida

‘Role of social learning in adoption and diffusion of new crops in rural Ethiopia: An econometric investigation’

One objective of subsidised credit has been to encourage technological diffusion. More recently, the importance of learning externalities in technology adoption has been increasingly used as an argument providing both equity and efficiency grounds for new credit programmes. Against this background, the research will attempt to isolate and quantify the importance of social learning in the dynamic process of agricultural innovations. Theoretical possibilities of both static and dynamic inefficiency, in private adoption decisions with learning externalities, are explored in the context of subsistence farming communities in rural Ethiopia. The data comes from the household survey data collected by the CSAE.

Magnus Lindelow

‘Essays on the empirical analysis of healthcare demand’

The research focuses on the theoretical modelling and empirical analysis of healthcare demand in Mozambique. Specifically, the thesis explores four empirical issues: (i) the role of income as a determinant of healthcare demand; (ii) the impact of intra-household education externalities on decisions about childhood immunisations and the use of maternity health services; (iii) the importance of different dimensions of healthcare quality on healthcare demand; and (iv) the sensitivity of estimates of socioeconomic inequality in health service indicators to the measurement of socioeconomic status. The research is based on two data sources: the 1996/97 Mozambican Household Survey, and a 1999 Beneficiary Assessment of the health sector in four provinces in Mozambique.

John McArthur

‘Impediments to productivity and growth in African economies’

Among the competing explanations of Africa’s generally stagnant trends in economic growth, those focusing on public institutions have gathered momentum in recent years. The first part of the thesis builds on this, by assessing empirically the firm-level links between bribe paying and productivity across 27 African economies. The results suggest that the country-level effects of bribe paying on productivity are greater than the direct firm-level effects. The second stage of the research looks beyond the role of public institutions, to assess the role of transportation networks in economic development, still with an emphasis on

explaining the poor growth history of African economies. Drawing on recent advances in applied mathematics and network theory, the research studies how the evolution of hub and spokes systems, in the global commercial passenger flight network, can help to identify underlying forms and causes of isolation in global production networks. It is hoped that a better understanding of the links between inter-urban air transport and patterns of economic agglomeration will help explain why many African economies have not grown more quickly.

Adam Mugume

'Essays on macroeconomics in Uganda'

The aim of this thesis is to offer insights into the multidimensional links between some few macroeconomic aggregates, notably consumer expenditure, investment and fiscal deficits, and to contribute to policy analysis in Uganda by quantifying and explaining domestic and external macroeconomic linkages, in relation to the evolution of these aggregates and the channels through which state and control variables have affected them. In particular, it attempts to provide an analytical framework that could provide an input to building a macroeconomic model for Uganda. The thesis comprises four substantive chapters; the first chapter puts together a potentially useful array of detailed information about the stylised facts of the evolution of the Ugandan economy, with reference to the role of incompatible macroeconomic policies, macroeconomic events leading to stabilisation and structural adjustment programmes. It elaborates on structural changes of the economy and the role of external shocks in the dismal economic performance. It also considers the tools of economic management by the World Bank and IMF. The other chapters cover consumer expenditure, investment and public sector deficit, and focus on quantification of the factors that have determined the evolution of these aggregates.

Janvier Désiré Nkurunziza

'The effect of credit on firm growth and survival in Kenyan manufacturing'

This thesis analyses two of the three main obstacles to firm activity identified by Kenyan manufacturing firm managers. These are, in order of importance, credit, low demand and infrastructure. The problem of credit is posed in terms of both credit rationing and its cost. Low demand is a consequence of an economic crisis that hit the Kenyan economy in the 1990s. Credit and low demand are studied by focusing on the relationship between access to credit and its impact on firm growth on one hand, and access to credit, firm survival and firm mobility on the other. A theoretical model shows that where credit contracts are enforced by reputation, it is shown that collateral is not necessary for credit trade to take place. Whether this access to loans helps the borrower to invest and prosper is analysed in the empirical part of the thesis. Using three different analytical frameworks focusing on growth, survival and mobility, the thesis shows that access to credit increased firm growth before 1992, a period of overall economic growth. In the 1990s, however, credit precipitated firm failure due to exceptionally high interest rates following economic liberalisation measures.

Catherine Porter

'Do household actions to lower consumption variance lead to lower mean current

and future consumption levels in situations where formal consumption-smoothing mechanisms do not exist?

The thesis will examine aspects of ex-ante decision making by households in response to vulnerability, when formal social protection mechanisms do not exist. The first stage of the thesis will examine the current economic approaches to measuring vulnerability, and explore possible extensions to them. Further work will develop a methodology to test some behavioural links between vulnerability and household decision making, using one of the CSAE panel datasets.

Neil Rankin

‘The determinants of manufacturing exports from sub-Saharan Africa’

This thesis uses both macro and firm-level data, to examine the determinants of exports of manufactured goods, from sub-Saharan Africa. South African macro data is used to examine the impact of export, domestic and input prices on aggregate export supply for the South African manufacturing sector as a whole, as well as for a number of sub-sectors. The results suggest that export supply is very inelastic with respect to export prices, but more elastic with respect to input prices. The second part of the thesis uses firm-level data from Ghana, Kenya, Nigeria, South Africa and Tanzania to investigate the relationship between export participation and efficiency, and to examine the micro-determinants of export participation. The results suggest that export participation and efficiency levels are related, but that there is no relationship between exporting and efficiency growth. It is large firms that export, and entry into the export market is associated with significant increases in employment. The thesis also investigates the relationship between export destination, the characteristics of firms and efficiency.

Christian Rogg

‘Precautionary saving and portfolio management in uncertain environments: Evidence from rural Ethiopia’

In the absence of formal insurance services, rural households in developing countries employ a plethora of other mechanisms to protect themselves from adverse shocks and to cope with shocks when they occur. Self-insurance through the accumulation of assets (‘precautionary saving’) is one such strategy. The research presented here explores a range of hypotheses relating to the links between uncertainty, shocks and household-level asset holdings. The first chapter presents an overview of the assets held by households in rural Ethiopia and assesses whether there is evidence of buffer-stock saving in non-financial assets. The second chapter explores the impact of uncertainty on portfolio allocation decisions. The third chapter assesses evidence of savings targets and whether households are able to smooth consumption through precautionary savings. For all chapters, the empirical analysis employs the first four rounds of the Ethiopia Rural Household Survey (ERHS) and village-level rainfall information collected by the Meteorological Institute of Ethiopia.

Mattia Romani

‘Technology, networks and agricultural productivity: Evidence from Côte d’Ivoire and Madagascar’

Farms across Africa have been associated for a long time with low yields and lack

of innovation, but they are still the centre of the economic engine of the continent. The aim of this thesis is to shed some light on the complex interaction between access to technology, diffusion and the combined effect of these two components on farmers' productivity. Ultimately this thesis aims to investigate the potential of policy intervention in this area. The applied work focuses on two different cases: (i) In Côte d'Ivoire the focus is on coffee and cocoa farms, and the potential for innovation. First the impact of extension services is assessed in the context of access to technology; then the focus moves onto the creation of networks among the farmers within villages. (ii) Madagascar farmers grow subsistence crops, mainly rice. Different types of extension are to be found around the country, and the empirical analysis focuses on assessing the effects they have on farmers' productivity using a detailed dataset on two provinces of the country. Subsequently, farmers' interactions are taken into account in evaluating the total impact of access to technology.

Marcella Vigneri

'Trade liberalisation and agricultural performance: Contrasting macro and micro evidence from Ghana'

This thesis offers a comprehensive empirical analysis of the cocoa sector in Ghana during the extended period of market reforms. The first part uses time series techniques to study the responsiveness of cash crops export supply to price incentives. The experience of cocoa in Ghana is contrasted to that of coffee in Uganda to show how indirect forms of taxation and implicit forms of taxation operate under different market reform scenarios. The second part uses two cross-sections of a nationally representative household dataset to explain production changes in the 1990s. The sources of growth are identified. The findings from this section show that for most regions the entire rise in cocoa production over the period was accounted for by an increase in the area of land under cultivation. Moreover, the results suggest that market reforms have not led to any increase in land productivity. The third part introduces a new dataset collected by the author to build the first existing panel of cocoa farmers. Panel data techniques are used to explore two additional aspects: (i) the extent to which measurement error and unobserved effects of land and labour bias the analysis of agricultural productivity changes; and (ii) the impact of land tenancy contracts in identifying who farms cocoa more efficiently and is therefore more likely to benefit from the new incentives created by the reforms.

DPhils completed during the year

Dambisa Moyo

'Political business cycles and other determinants of public and private savings in developing countries'

The thesis examines the role of non-economic factors in saving decisions in developing countries. One of the characteristics of African countries, in contrast to the NICs, has been low domestic saving ratios. These low saving rates may underlie the low investment rates which are a key element of Africa's poor economic performance.

Josephine Ngure

‘Ownership structure, corporate governance and financial policy: An investigation of Kenyan publicly traded companies’

In a governance framework, the presence of large shareholders in the firm’s ownership structure can bring benefits by overcoming free-rider problems associated with dispersed ownership. The downside to large shareholdings is that they introduce a majority–minority conflict, since the interests of large shareholders may diverge from those of minority investors. This poses a risk of minority wealth expropriation. An alternative governance mechanism available to investors is financial policy. While their presence reduces the monitoring role of financial policy, large shareholders with an expropriation motive are more likely to support decisions that avoid the governance aspects of financial policy. Among other things, large shareholders will seek to avoid debt finance and to minimise cash dividend payments. Two factors increase the risk of minority wealth expropriation: (i) majority shareholdings and (ii) weak protection of investor rights.

This thesis investigates the impact of majority shareholdings on financial and investment policy using a sample of publicly traded Kenyan firms. Ownership structure in these firms is dominated by majority shareholdings and, despite a fairly impressive legal and regulatory framework, enforcement of investor rights in Kenya is quite weak. The thesis seeks to identify the impact of two key features of the ownership structure in the Kenyan firms: (i) majority corporate shareholdings, i.e. parent–subsidiary governance structures, and (ii) majority foreign control.

With market imperfections, these types of ownership yield information benefits and improve access to capital markets. However, they can aggravate the risk of minority wealth expropriation. The central proposition of the thesis is that the pattern of financial and investment policies observed in subsidiary and foreign-owned firms should reveal whether parent companies and majority foreign owners are engaged in expropriating minority wealth.

If the effects of parent–subsidiary structures and foreign ownership are improved information and better access to the capital market, these companies will feature higher debt levels, lower sensitivity of debt to profitability, higher cash dividends and higher sensitivity of dividends to earnings. In addition, their investment would be less sensitive to internally generated funds. This pattern is reversed when parents and foreign owners engage in minority wealth expropriation.

Panel data estimation techniques are used to analyse the differences in debt, dividend and investment policy between (i) subsidiary and non-subsidiary firms and (ii) foreign-owned and domestic firms. We obtain no evidence that parent companies and foreign owners aggravate minority wealth expropriation. Rather, our results are consistent with the information hypothesis. Subsidiary and foreign-owned firms show lower sensitivity of debt to profitability, a higher sensitivity of cash dividends to profits and a lower sensitivity of investment to internally generated funds. In contrast, debt in domestic and non-subsidiary firms shows a stronger negative relationship with profitability and these firms pursue a rigid dividend policy. Their investment activity is also more sensitive to internally generated funds.

Pieter M. Serneels

'Unemployment and wages in urban African labour markets'

This thesis investigates two aspects of urban African labour markets: unemployment and wages. The first part analyses unemployment in urban Ethiopia, the second part examines wage and productivity profiles in Ghana. The focus is on young adults.

With around fifty per cent of urban young men unemployed, Ethiopia has one of the highest unemployment rates worldwide. The first chapter investigates the nature of unemployment in urban Ethiopia, using household data. It is found to be concentrated among young, relatively well-educated, first-time job seekers, who come from the middle classes. Almost two-thirds of them are looking for a well-paid formal sector job, usually a public sector job. Mean duration of unemployment is close to four years and is higher for those aspiring to a public sector job. It is found that both the incidence and the duration of unemployment are negatively related to household welfare. This suggests that households use their savings and cut back consumption to cope with unemployment.

Using the same data, chapter two explains why non-negative duration dependence is observed by testing four different explanations suggested by the literature. It is found that labour market segmentation offers the best explanation.

Chapter three looks at the added worker effect and intra-household aspects of unemployment. Analysis of panel data provides no evidence for an added worker effect, whether actual or desired labour supply is used.

A common theme in these chapters is that of segmented labour markets. A concluding chapter discusses the attraction of this model for explaining unemployment in Ethiopia. It gives a brief overview of the literature and shows the explanatory power of the model with a theoretical illustration. Some policy recommendations are given and the findings for Ethiopia related to those for other African countries.

The second part of the thesis investigates wage and productivity profiles in the Ghanaian manufacturing sector using firm and worker matched data. Following Medoff and Abraham (1980, 1981), performance appraisal is used as the measure of individual productivity. When a wide range of human capital variables including cognitive skills is controlled for, it is found that wage profiles over the life cycle are not significantly different from productivity profiles, even though wages and productivity do not have the same determinants. There is also suggestive evidence that firm size and unionisation do affect the life cycle profile as well as the level of wages and productivity. This suggests that human capital theory offers explanatory power in small and non-unionised firms, while alternative theories may be better at explaining wage setting in large and unionised companies.

Section 2: The programme of the Research Group

Introduction

The Global Poverty Research Group (GPRG) is a response to the perceived need for a more multi-disciplinary approach to the problems faced by developing countries. It is the objective of the Research Group to show how valuable such collaboration can be by bringing together a range of researchers diverse both in their disciplinary backgrounds and in their range of expertise across countries. At the core of the Research Group is the collaboration between two institutions, the Centre for the Study of African Economies at Oxford (CSAE) and the Institute for Development Policy and Management at Manchester University (IDPM). During our first year we have sought to build bridges between disciplines and to create a research infrastructure linking researchers working on poverty in both developed and developing countries.

By providing the means for this collaboration between IDPM and CSAE, ESRC funding has enabled researchers working in both qualitative and quantitative dimensions to interact and extend their current research. We have already identified areas where the work is complementary. One of these is social capital, in which there is active interdisciplinary research. A second area is in work on measuring livelihoods. Are qualitative and quantitative approaches simply measuring different aspects of livelihoods or are they different methods for measuring the same thing? We have also made good progress in identifying and clarifying key methodological issues in the assessment of well-being.

Well-being is a combination of many elements, some tangible – food, shelter, health – and others intangible – dignity, freedom, security. Looking at a single element does not suffice and much is to be learned from comparing how different social scientific disciplines approach the same fundamental problem. The collaboration between CSAE and IDPM has enabled the Research Group to link economists, sociologists, political scientists, human geographers and anthropologists who have many research interests in common. Similarly, much can be gained from studying the way men and women in different parts of the world deal with the same basic difficulties of life. For this reason, we are studying the problems of achieving well-being in Africa, South Asia, and China – three regions that together account for one-third of humanity and the majority of the world's poor.

Programme philosophy

The role of a research group is to enhance the value of individual research by providing a collaborative infrastructure and to facilitate an active partnership with the research user community. It is intended to achieve these aims in a number of ways.

Firstly, the programme provides a platform for researchers to exchange ideas and results. Informal meetings, seminars and conferences are held throughout the year to disseminate and discuss research projects and results, in both Oxford and Manchester. Secondly, the programme makes researchers more productive by

providing support in the form of a programme co-ordinator, administrative assistants and IT support staff. Thirdly, the programme co-ordinates data collection activities in the developing world, which is generally very time-consuming and organisationally complex. By sharing the cost and effort of data collection, researchers can minimise the toll it takes on their productivity. Overall, the programme is the vehicle for active engagement with users by means of conferences, seminars, networking and programme governance structures.

Research activities at the CSAE

In the following account, research activities are grouped by theme and within each theme several modules have been identified. At this stage of the research, we will report on the activities under each theme.

The first theme is poverty, intra-household allocation and well-being. Well-being is used in a broad sense, encompassing Sen's concept of 'capability to function' as well as the consumption of material things and the enjoyment of psychic utility. Under the second theme, issues of income opportunities and inequality and their impact on the poor are being investigated. Under the third theme, researchers are asking how investment in human capital and the quality of institutions link to well-being. Theme four investigates social capital, the provision of public services, and social safety nets. Theme five covers governance, social norms and social outcomes.

Theme 1: Poverty, intra-household allocation and well-being

Measuring poverty in Tanzania

How successful have policies been in turning round failing economies? Tanzania has seen precipitate falls in consumption per capita since the 1970s. Has there been an improvement in the 1990s? Figure 2.1 shows the figures for real consumption from the PENN World Tables in purchasing power parity 1996 US\$. There is little evidence from this data for any sustained rise in the 1990s. Trudy Owens has worked on the two budget surveys that allow a comparison to be made between 1991/92 and 2000/1. This work has been incorporated in the official government publication Household Budget Survey 2000/01, (<http://www.tanzania.go.tz/newf.html>), National Bureau of Statistics, Tanzania, July 2002. Table 2.1 shows the figures for real per capita expenditure.

The data shows that the median expenditure per capita rose by 10.4 per cent over this decade, with by far the highest rise in Dar es Salaam, where incomes are highest. There is little evidence from this survey that reform has differentially benefited the poorest areas – in fact the opposite. One value of survey-based information is that it provides a check on the value of the macro data presented in Figure 2.1. Another advantage of the survey method is that it allows far more detail to be obtained as to who are the poor.

Figure 2.1 Real consumption per capita in Tanzania (US\$ ppp 1996 prices)

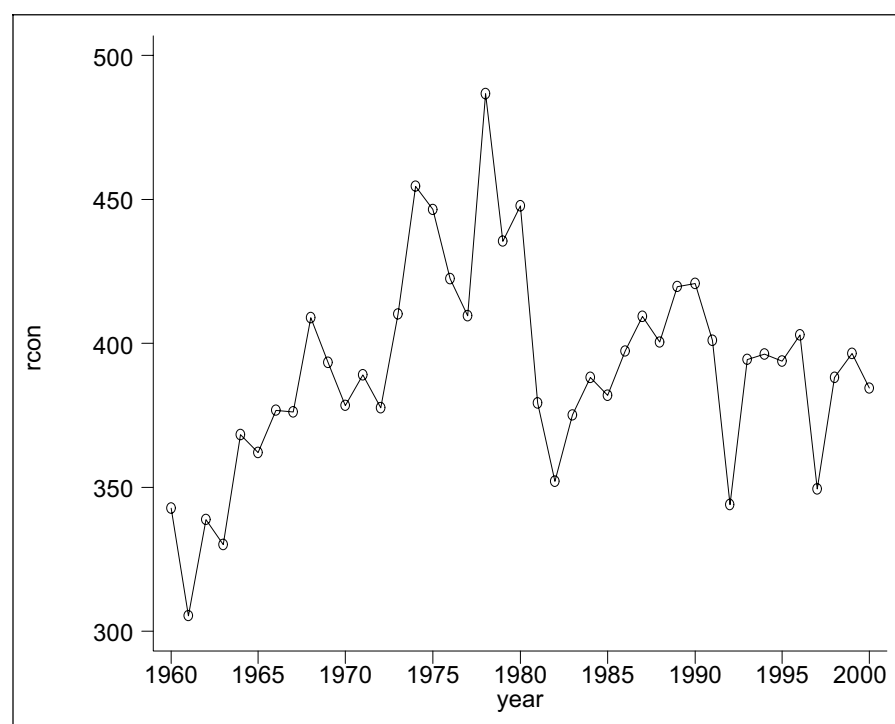


Table 2.1 Trends in real per capita expenditure (28 days, 2000/01 TZ shillings)

Median expenditure	Dar es Salaam	Other urban areas	Rural areas	Mainland Tanzania
2000/01	16,349	11,561	6,860	7,523
1991/92	12,106	9,622	6,300	6,816
Ratio (00/01) / (91/92)	1.35	1.20	1.09	1.10

Source: Table 6.2 Household Budget Survey 2000/01, National Bureau of Statistics, Tanzania, July 2002.

Table 2.2 shows that the poverty headcount measure fell, but fell more than the average for the best-off, that is the parastatal employees. Over this period the population of Tanzania will have risen by nearly 30 per cent so the small fall in the total headcount measure of poverty will not have been sufficient to prevent the absolute number of the poor rising.

Table 2.2 Distribution of poverty by main activity of the household head

Activity of the head	1991/92 Headcount ratio	2000/01 Headcount ratio
Farming/livestock/fishing	42.3	39.9
Employee – government	18.6	15.3
Employee – parastatal	12.2	8.1
Employee – other	29.8	20.2
Self-employed with employees	31.7	19.1
Self-employed without employees	24.5	22.5
Unpaid family helper in business	–	57.4
Housewife / household chores	14.7	27.7
Not active – all reasons	41.8	45.1
Total	38.6	35.7

Source: Table 8.4, Household Budget Survey 2000/01, National Bureau of Statistics, Tanzania, July 2002.

Source for further information: Household Budget Survey 2000/2001, (<http://www.tanzania.go.tz/newf.html>), National Bureau of Statistics, Tanzania, July 2002.

Measuring poverty in Ethiopia

One country in which detailed panel data has been collected by Centre researchers is Ethiopia. What does the evidence for rural Ethiopia show? Pramila Krishnan and Stefan Dercon have addressed this question. The availability of panel data makes it possible to investigate whether the households in the panel have seen rises in income. It is argued that the main factors driving income changes are relative price changes resulting in changes in the returns to land, labour, human capital and location. The experience of the poor is mixed. For some, poverty was persistent. These findings are particularly important as the poor in Ethiopia are amongst the poorest people on the continent. Poverty persistence was investigated further by focusing on persistent effects from drought and famine. It was found that the depth of suffering of households during the 1984–85 drought still negatively affected growth performance in the 1990s, suggesting long-lasting effects from shocks.

Recent publications

Dercon, S., 'The impact of economic reform on rural households in Ethiopia', Poverty Dynamics in Africa Series, Washington, D.C.: World Bank, 2002.

Dercon, S. and P. Krishnan, 'Changes in poverty in villages in rural Ethiopia: 1989–95', in A. Booth and P. Mosley (eds), *The New Poverty Strategies*, London: Palgrave Macmillan, 2003.

Dercon, S., 'Growth and shocks: Evidence from Ethiopia', CSAE Working Paper Series 2003-12

Managing risk and the implications for poverty

Poor rural and urban households in developing countries face substantial risks, which they handle with risk-management and risk-coping strategies, including self-insurance through savings and informal insurance mechanisms. Despite these

mechanisms, however, vulnerability to poverty linked to risk remains high. Stefan Dercon has continued his work on risk and poverty, of which part has focused on understanding the strategies households use to cope with risk. A paper co-authored with Joachim De Weerdts has focused on whether networks are relevant for risk coping in a village in Tanzania, using detailed panel data. The implications of having overlapping networks for standard risk-sharing tests were examined, and the impact of health shocks on consumption across households was tested. It was found that health shocks have substantial effects on consumption, but also that networks were contributing to risk sharing. Given that there is substantial exclusion from networks, and inequality in terms of the wealth of networks, the village is clearly not the appropriate unit to study risk sharing, even in this setting, with relatively poor households with relatively limited market interaction.

Another paper by Stefan Dercon shows that risk and lumpiness limit the opportunities to use assets as insurance, that entry constraints limit the usefulness of income diversification, and that informal risk sharing provides only limited protection, leaving some of the poor exposed to very severe negative shocks. Public safety nets are likely to be beneficial, but their impact is sometimes limited, and they may have negative externalities on households that are not covered. Collecting more information on households' vulnerability to poverty – through both quantitative and qualitative methods – could help inform policy.

Recent publications

Dercon, S. and J. De Weerdts, 'Risk-sharing networks and insurance against illness', CSAE Working Paper Series 2002-6.

Dercon, S., 'Income risk, coping strategies and safety nets', background paper prepared for the World Development Report 2000/01. A shorter, edited version appeared in *World Bank Research Observer*, 17, 141–66, 2002.

Quantitative and qualitative approaches to the measurement of welfare

Current development orthodoxy based on macroeconomic theory stresses the importance of physical and human capital as necessary for growth. Concern has been growing among development practitioners that textbook economic theory and results from formal questionnaires may be misleading as measures of welfare. This has led to an increase in the use of participatory appraisals and in related methods which take more qualitative approaches to attempts to measure poverty. In an analysis of Zimbabwean rural households, Trudy Owens has explored the perception of aid, and of its role in reducing poverty, from the perspective of the recipients. The research adopted two techniques described in the literature on participatory rural appraisal: the first, a wealth-ranking exercise to examine villagers' concepts of poverty and the determinants of growth; and the second, semi-structured group discussions to explore villagers' thoughts on the role of aid. It was found that villagers' perceptions of poverty and the role of aid were consistent with the results of the more quantitative survey-based approach to measurement. The implications are that, at least in this instance, the alternative approaches do suggest that perceived poverty is similar in incidence and structure to measured poverty. Clearly the advantage of the quantitative approach is that it is possible to make comparisons over time and across countries.

Theme 2: Income opportunities, inequality and the poor

Unemployment, race and poverty in South Africa

The unemployment rate in South Africa is one of the highest in the world, 36–40% since the year 2000 using the broad definition. Even according to the narrow definition, which applies a job-search test, 25–30% of adults who wanted work and actively looked for it were unemployed. Moreover, the unemployment rates for different groups reveal great disparity in the incidence of unemployment. Given the importance of employment income in total household income in South Africa, the varying incidence of unemployment across different groups has important implications for the distribution of income and for the incidence of poverty. It is of interest to policy makers to know what attributes are associated with being able to avoid unemployment. In the South African context, it is particularly interesting to examine the extent to which differences in the productive and other observed characteristics of blacks and whites explain the race gap in unemployment. If the black–white differences in observed characteristics do not explain the whole of the race gap in unemployment rate, then this could be due either to labour market discrimination against blacks or to the fact that some important characteristics that differ between blacks and whites are unobserved. For example, black and white labour force participants may have faced different school quality when they were of school age.

In this research, being undertaken by Geeta Kingdon and John Knight, the determinants of both entry into and the duration of unemployment in South Africa have been investigated using data from 1993, 1994 and 1997. The research aims to paint a picture of the distribution of unemployment in South Africa, asking the question ‘who are the unemployed?’ and identifying the characteristics that make a person more likely to be unemployed.

It is found that unemployment is very inequitably distributed in South Africa and certain groups are much more likely to enter it, and to stay in it, than others. Young uneducated Africans living in homelands and remote areas are most vulnerable to unemployment. There are two particularly striking features of South African unemployment: firstly, that rural unemployment rates are higher than urban ones. This is atypical among countries and is explained by historical policies restricting mobility. Secondly, the majority (62%) of the unemployed have never held a job, i.e., they entered unemployment from the time of entering the labour force. The very long duration of unemployment (greater than one year) among a high proportion (68%) of the unemployed suggests that the demand-side of the labour market is responsible for a good part of the unemployment.

The analysis shows the characteristics of the people who are liable to be at the end of the queue for employment. Improving their characteristics may improve their place in the queue, but it will not necessarily reduce unemployment. In the African group – the group that suffers such catastrophically high unemployment rates – human capital characteristics such as education and employment experience dramatically reduce the chances of unemployment. However, a policy prescription that African education and skills should therefore be upgraded may not solve the problem: unless there are more jobs in the economy, upgrading the education of Africans will at best change the composition of employment in their favour. Of course, it is possible that expanding education and skills will reduce

overall unemployment. The mechanism might be to increase the supply of skilled labour, for which there is market clearing, and to decrease the supply of unskilled labour, which the market fails to clear so that there is a surplus of workers.

The analysis suggests that racial differences in unemployment incidence cannot simply be dismissed as a problem of the poorer productive characteristics of the African, coloured, and Indian groups relative to the whites in South Africa. While a substantial part of the race gap in the incidence of unemployment in the mid-1990s was explained by inter-group differences in observed characteristics, there remained a large residual that could not be explained in this way. The residual may be due to employer discrimination or to racial differences in unmeasured determinants such as the quality of education.

Recent publications

Kingdon, G. and J. Knight, 'What have we learnt about unemployment from microdatasets in South Africa?', *Social Dynamics*, 27(1), 2002.

Kingdon, G. and J. Knight, 'Race and the incidence of unemployment in South Africa', *Review of Development Economics*, 8(3), May 2004.

Kingdon, G. and J. Knight, 'School quality and the race gap in labour market outcomes in South Africa', mimeo, 2004.

Kingdon, G. and J. Knight, 'Unemployment in South Africa: The nature of the beast', *World Development*, 32(3), March 2004.

Kingdon, G. and J. Knight, 'The spatial relationship between wages and unemployment in developing countries: The case of South Africa', CSAE Working Paper Series 99-12.

Kingdon, G. and J. Knight, 'Are searching and non-searching unemployment distinct states when unemployment is high? The case of South Africa', CSAE Working Paper Series 2000-2.

Wages in the manufacturing sectors of Kenya and Ghana

There is a striking contrast between the economy of South Africa and many other African economies in that while in the former, measured unemployment is very high and closely linked to poverty, in other African countries, for example Ghana, measured unemployment is very low. What the economies have in common is one key component: whether or not a household is poor depends on whether its members have access to wage jobs. In countries like Ghana the alternative to wage employment is self-employment. Work on wage determination under this part of the programme has begun by focusing on comparative work on Kenya and Ghana.

In particular, this project asks how firm effects influence wages and investigates the implications of labour and capital market imperfections for the relationship between firm size and earnings. To establish that such a question is of interest it is necessary to show that the firm size–wage effect cannot be explained by either the observed or unobserved skills of the workforce or the characteristics of the workplace. Data is required where controls are possible for observable time-varying firm and worker characteristics, as well as the unobservable characteristics of both the firm and its workers. Data now exists which is a sample of workers matched with firms over time, ensuring that a range of factors can be controlled for, which is not possible with other datasets. Changes in wages are shown to respond to changes both to profits per employee and the size of the firm. It is argued that these empirical results clearly reject the hypothesis that the firm size–wage relationship can be explained by the skills of the workers. They can be shown to be consistent with some forms of non-competitive theories of bargaining and efficiency wages.

Recent publication

Söderbom, M., F. Teal and A. Wambugu, 'Does firm size really affect earnings?', CSAE Working Paper Series 2002-08.

Theme 3: Human capital, institutions and well-being

Subjective well-being

Geeta Kingdon and John Knight's research under this theme has focused on two areas: (i) the correspondence between subjective well-being poverty on the one hand and income and capabilities poverties on the other; (ii) altruism, envy and subjective well-being. Further work on perceived well-being is planned with purpose-designed data from China.

Subjective well-being poverty, income poverty and capabilities poverty

The conventional approach of economists to the measurement of poverty in poor countries is to use measures of income or consumption. This has been challenged by those who favour broader criteria for poverty and its avoidance. These include the fulfilment of 'basic needs', the 'capabilities' to be and to do things of intrinsic worth, and safety from insecurity and vulnerability. This paper asks: to what extent are these different concepts measurable, to what extent are they competing and to what extent complementary, and is it possible for them to be accommodated within an encompassing framework? There are two remarkable gaps in the rapidly growing literature on subjective well-being. First, reflecting the availability of data, there is little research on poor countries. Second, within any country, there is little research on the relationship between well-being and the notion of poverty. This research has attempted to fill these gaps.

Any attempt to define poverty involves a value judgement as to what constitutes a good quality of life or a bad one. Kingdon and Knight argue that an approach which examines the individual's own subjective perception of well-being is less imperfect, or more quantifiable, or both, as a guide to forming that value judgement than are the other potential approaches. They develop a methodology for using subjective well-being as the criterion for poverty, and illustrate its use by reference to a South African data set containing much socio-economic information on the individual, the household and the community, as well as information on reported well-being. The authors conclude that it is possible to view subjective well-being as an encompassing concept, which permits the quantification of the relevance and importance of the other approaches and of their component variables. The estimated well-being functions for South Africa contain some variables corresponding to the income approach, some to the basic needs (or physical functioning) approach, some to the relative (or social functioning) approach, and some to the security approach. Thus, the methodology effectively provides weights of the relative importance of these various components of well-being poverty.

Altruism, envy, comparison and well-being

An interesting issue in research on subjective well-being concerns the role of comparisons with relevant others. The project explores the effects of relative concepts in determining happiness in South Africa, a racially divided and

economically unequal society. The following questions are addressed using a comprehensive cross-section data set. Which relativities matter? Which are the comparator groups? Are the spillovers positive, suggesting 'altruism', or negative, suggesting 'envy'? Do the poor and non-poor differ in the way their happiness responds to absolute and relative variables? It is found that income is the most important relative variable, that locality and race define the most important reference groups, that there is evidence of both altruism and envy according to the size of locality, and that the well-being of the poor is influenced by absolute but that of the non-poor by relative income.

Recent publications

Kingdon, G. and **J. Knight**, 'Well-being poverty versus income poverty and capabilities poverty', CSAE Working Paper Series 2003-16, December 2003.

Kingdon, G. and **J. Knight**, 'Altruism, envy and well-being in a divided society', CSAE mimeo, December 2003.

Policy issues in Indian education: Student achievement in government and private schools

Background to the research

In this part of the programme, Geeta Kingdon and Francis Teal are investigating how student achievement can be improved. The research draws on a survey of schools in India where information was collected about both the students and their teachers. The research is asking both general and specific questions about the determinants of student achievement in India. Among the specific questions is whether there is evidence for the payment of performance-related pay and whether such pay structures do impact on student achievement.

What are the facts about teacher pay and student achievement in government and private schools in India based on this survey? Table 2.3 shows the averages of teacher pay, student achievement and student ability, the latter measured by means of a test. In private schools average teacher pay is only about 60% that in government schools. It also varies a lot more. The poorer-paid teachers in private schools earn less than one-third of the better-paid teachers in government schools. In private schools both student achievement and ability are much higher. It is also true that private schools have far more resources than government ones. These findings present the researcher with a challenge that often arises in any comparison of government with private schools. Private schools get better results but if this is due to the fact that they select better students it clearly does not necessarily imply that private schools are better at teaching than government ones.

Table 2.3 Teacher pay, student achievement and student ability, India

	Government schools		Private schools	
	Mean	Standard deviation	Mean	Standard deviation
Teacher salary (rupees per month)	2482	329	1533	762
Student achievement score ^a	19.0	8.4	33.8	10.5
Student ability ^b	26.9	10.1	36.0	10.6

The data pertains to 1992.

^a The student's total mark in a 36-item test of numeracy and a 29-item test of literacy; thus the maximum possible score is 65 and the minimum is 0.

^b Measured by means of a test of reasoning ability.

Preliminary findings

The research has proceeded by asking if, once allowance is made for differences in student ability, parental background and the greater resources available to private schools, there are significantly better academic results for private schools. It is found that such is the case.

Why do private schools produce higher levels of student achievement? One possibility is that private schools relate pay to achievement while government schools do not. This possibility has been investigated and some evidence is found that private schools do pay their teachers in relation to the student's achievement and that such payment leads to better achievement outcomes. In private schools, the flexibility of managers to set wages and dismiss lax teachers means that higher wages are a lever that can be used to enhance teacher incentives. Since government-funded teaching jobs in India are mostly permanent contracts with little chance of dismissal, performance-related wages are not available as an effort-motivating device in the public school sector. This has implications for the design of teacher incentives in government-funded schools. As most private schools in India pay their teachers 50–80% less than government ones, the research points to ways in which the costs of providing education can be reduced. Para-teacher schemes within government schools are beginning to do that, though their efficiency and equity impacts are yet to be evaluated.

Future research

Further work is underway to expand this line of enquiry using data from 12,000 students across 186 schools in 16 major Indian states. The work will also include an examination of the effect of class-size on student achievement. Teachers are by far the most expensive input into schooling: teacher salaries typically account for more than 90% of total recurring school costs in India. Whether and in what ranges teacher–pupil ratio is related to student achievement are therefore very relevant issues for Indian education policy makers.

Recent publication

Kingdon, G. and **F. Teal**, 'Does performance-related pay for teachers improve student achievement? Some evidence from India', CSAE Working Paper Series 2002-06.

Gender bias in the intra-household allocation of educational expenditure

In this project, Geeta Kingdon addresses the issue of gender bias in India. This research measures the gender gap in educational expenditure in Indian households using the 1994 rural survey data from 33,000 households across 16 major states. It examines gender bias in educational expenditures both directly by inspecting individual-level expenditures and also indirectly, using the household consumption-based (Engel curve) methodology. The reliability of the indirect method has been called into question recently because it has generally failed to confirm bias even where it is known to exist. This failure may be to do with the aggregate nature of the data employed in the method. Since meals are prepared centrally within a household, the food consumption of each individual member is not easily isolated and measured. However, consumption of (or expenditure on) a good such as education is more readily measured since it is very individual-specific.

This paper seeks to find explanations for the Engel curve's failure by exploiting a dataset that has educational expenditure information at the individual level and also, by aggregation, at the household level. It is found that in the basic education age groups, the discriminatory mechanism in education is via differential enrolment rates for boys and girls. Education expenditure *conditional* on enrolment is equal for boys and girls. The Engel curve method fails for two reasons. Firstly, it models a single equation for the two-stage process. Secondly, even when individual- and household-level expenditure equations are made as similar as possible, the household-level equation still fails to pick up gender bias in about one-third of the cases where the individual-level equation shows significant bias. The paper concludes that only individual-based data can accurately capture the full extent of gender bias.

Work is underway to see if the findings can be replicated using Indian National Sample Survey (NSS) data on 120,000 households.

Recent publications

Kingdon, G., 'Where has all the bias gone? Detecting gender-bias in the household allocation of educational expenditure', CSAE Working Paper Series 2003-13.

Kingdon, G., 'The gender gap in educational attainment in India: How much can be explained?', *Journal of Development Studies*, 39(2), 25–53, December 2002.

The political economy of education in India

Background

While there has been encouraging progress in India in some measures of education from the 1990s, parents, newspapers, NGOs, state governments and aid organisations all express serious concern about the continued parlous state of publicly funded education in India. Debates are raging over the role and efficacy of reform measures such as educational decentralisation to panchayats, expanding access via use of low-paid, temporary-tenured para-teachers, curriculum reform, user charges, midday meals and the use of second-track schemes such as Non-Formal Education and Education Guarantee Schemes. However, in these debates, the role of a key actor in education – the teachers and their unions – has received scant attention. This research programme has explored the extent of and

reasons for teachers' participation in politics, their unique constitutionally guaranteed political privileges, and the evolution and activities of their unions in the largest Indian state, Uttar Pradesh (UP). Drawing on newspaper reports, interviews with teacher union leaders and teacher politicians, and on sources such as the Report of the National Commission on Teachers, the research examines whether there are conflicts of interest that make teacher unions opponents of educational reforms, and looks at the implications of teachers' political and union-based activities for the functioning of the school education sector.

Findings

The research suggests that the lack of teacher accountability in UP has its roots in teachers' own demands for a centralised education system which shelters them from disciplinary action by local managers. Analysing the effects of the special constitutional privilege granted to teachers in India (namely their guaranteed representation in the Upper House of the state legislatures wherever the Upper House exists, such as in UP), the research argues that the existence of separate teacher constituencies for electing members to the Upper House of the state legislature encourages teachers' participation in politics. Teacher unions are used by teacher leaders to launch and buttress their political careers, in particular to become teacher Members of the Legislative Council (MLCs) and Members of the Legislative Assembly (MLAs). In turn, teacher legislators are sympathetic to teacher demands, to keep their teacher vote banks happy. The research finds that important educational legislation in UP in the post-independence period has come about not on the basis of well-considered efficiency or equity criteria but rather as a reaction to teacher union demands. Teacher strikes and 'agitations' have led to the legislation of important education Acts in UP that had far-reaching consequences in terms of improving teachers' job security and service conditions and reducing their accountability to local managers.

Teachers' agitations since 1959 have focused overwhelmingly on issues of their own pecuniary interest and have achieved substantial success. Teacher salaries grew rapidly in real terms and, between 1960 and 1981, the share of non-salary expenditure in total recurrent educational expenditure fell from 28% to 9% in secondary education, from 15% to 6% in junior education, and from 12% to a mere 3% in primary education. While militantly unionised teachers exert pressure on the state government to increase their salaries, no lobby or pressure group exists to demand government grants for non-salary school expenses. This work shows how teachers' political clout has made it difficult for the government to deal impartially with teacher demands, and the educational consequences of this.

Recent publications

Kingdon, G. and M. Muzammil, *The Political Economy of Education in India*, Delhi: Oxford University Press, 2003.

Kingdon, G., R. Cassen, K. McNay and L. Visaria, 'Education and literacy', in Tim Dyson, Robert Cassen, Leela Visaria (eds), *21st Century India: Population, Environment and Human Development*, Oxford University Press, 2004.

Theme 4: Social capital, the provision of public services, and social safety nets

How does social capital form?

The work now being undertaken by Abigail Barr builds on an earlier project funded by DFID entitled 'From Strangers to Neighbours', which came to an end in 2002. The primary objective of this project was to further understanding of how social capital emerges and to investigate whether anything can be done to promote its generation. The research focus was a sample of Zimbabwean smallholders who resettled into new villages made up of stranger-households in the early 1980s. The strategy was to investigate how these farmers had gone about building new stocks of within-village social capital and thereby improving their ability to solve shared problems and take advantage of collective opportunities, to identify the characteristics that distinguished the new villages that have been successful in this regard from the ones that have been unsuccessful, and to establish whether and how policy interventions might support their endeavours.

This project is important also because it incorporates a significant departure from the CSAE's usual survey-based approach to micro developmental issues. Barr treated the project as an opportunity to explore the potential value of field experimentation as a data generation technique.

In field experiments people are involved in the playing of games under controlled conditions. The games are designed to capture certain aspects of decisions or types of decision that those people take in everyday life. If the object is to discover how they make decisions about risky courses of action, the game will involve choosing between different gambles, i.e., different uncertain outcomes, or choosing whether to gamble or not. Alternatively, if the question is whether they are kind to each other because they expect their kindness to be reciprocated, a game in which they have a chance to be kind to others or to be kind back is appropriate. Whatever the design, the games always involve real incentives; that is, they are played for money or food or something else of value. The decisions that each person makes, combined with the roll of a die or the toss of a coin in the case of gambling games, or with the decisions made by others in the case of interactive games, determine how much money they take home. As long as the amounts of money at stake in the game are high enough, this causes them to take their decisions seriously and thereby reveal their preferences and underlying motivations through the way they play.

Traditionally, such experiments are conducted in university laboratories with students as subjects. This affords the experimenters a great deal of control, but has caused many to question the relevance of experiments to understanding of how people in general and especially in developing countries make decisions. Now, an increasing number of economists and anthropologists (although still probably not more than 30) have started running field experiments. These experiments have involved farmers, urban workers, truck drivers, school children, hunters, gatherers, whalers and many other types of people, and in every case have involved playing games for real money or food or something of value.

The project conducted a series of economic experiments in 28 Zimbabwean villages in order to generate data relating to trust, trustworthiness, cooperation, and social norm enforcement. The resulting information was combined with data

generated through surveys of households and individuals, group interviews and participatory research exercises, and thereby built a very rich and detailed picture of how and to what extent the resettled households had transformed the strangers they had found themselves surrounded by in the early 1980s into neighbours.

The experimental methodology turned out to be not only an excellent data generation technique but also a remarkable facilitation tool in participatory research endeavours. The games involving trust, reciprocity and cooperation had a profound impact on people's willingness to talk frankly about how well their villages functioned as communities. Prior to the games, it proved very difficult to get people to diverge from an account of how people ought to live within a community. The subjects told the researchers how cooperative people were, how everyone trusted everyone else, and so on. Attempts to get people to talk about what happened when cooperation or trust broke down either failed completely or led to one-on-one discussions about particular incidents. The latter were interesting but did not facilitate the development of a picture of the cooperativeness of each village as a whole. The villagers instantly understood that through the games all, or at least much, was being revealed about how trusting and cooperative they really were. Following the games, the villagers would enter into new discussions about how 'trustingly' or 'cooperatively' they had played and what this said about their communities. Many of these post-play discussions were initiated not by the researchers but by the villagers themselves. They were fascinated by the metaphor that the game represented and wished to explore its relevance to their everyday life. They were also keen to find out how trustingly or cooperatively they had played relative to other villages and what insights the researchers had as to why such differences existed. Thus, primarily non-participatory research activities became participatory at the instigation of the research subjects.

This innovatory methodology generated many interesting findings. When faced with low stocks of 'traditional' kin-based social capital, resettled villagers encourage offspring to intermarry and form civil associations. Intermarriage facilitates informal insurance, while the emergent civil society provides an environment within which trust can develop. Many saw resettlement among strangers as a chance for a fresh start and this fresh start was associated with a persistent increase in people's willingness to cooperate. Older resettlers play an important role in the accumulation of social capital in that they are more cooperative and socially active. Women are also more cooperative and socially active and they play an important role in enforcing pro-social behavioural norms. A willingness to comment on the appropriateness or inappropriateness of others' behaviour facilitates greater cooperation and social conformity. However, an aversion to the conflict associated with social sanctioning can cause individuals to withdraw from cooperative endeavours.

No evidence of sub-optimal investments in civil society was found upon which to base a recommendation for interventions designed to increase such investments. Social capital-generating interventions would be better focused on mutual trust building. The experimental methods used could be adapted to assist in the building of mutual trust among resettled and displaced people both in Zimbabwe and elsewhere. Resettling entire villages together would allow the resettled villagers to take with them their traditional kin-based social capital.

However, this could mitigate the fresh-start effect which caused the resettlers to achieve new, more cooperative approaches to social dilemmas. The project highlights that planners should not focus solely on the physical capacities of potential new community members as in so doing they may underestimate the potential contribution of the older generation as community builders.

Recent publications

Barr, A., 'Social dilemmas and shame-based sanctions: Experimental results from rural Zimbabwe', CSAE Working Paper Series 2001-11.

Barr, A. and B. Kinsey, 'Do men really have no shame?', CSAE Working Paper Series 2000-05.

Barr, A., 'Forging effective new communities: The evolution of civil society in Zimbabwean resettled villages', CSAE mimeo, 2003.

Barr, A., 'Trust and expected trustworthiness: Experimental evidence from Zimbabwean villages', *The Economic Journal*, 113(489), 614–30, 2003.

Health workers in Ethiopia

This project studies the labour market for health workers. Its aim is to get a better understanding of the role of human resources in the health sector. The skills and motivation of health workers form the foundation for health service delivery. Human resources are important from a budgetary perspective, typically accounting for more than half of government spending on health.

Initially the project will focus on Ethiopia, where health outcomes and health service indicators are among the worst in the world, and problems of health worker motivation are often cited as the reason.

The first phase of the project explored a broad range of issues. Qualitative methods were used to identify key hypotheses and areas of focus for further work, and to understand the nature and relative importance of different labour market issues. The preparatory work consisted of three sets of activities. First, a desk-based preparation included a review of relevant literature and policy documents, and the design of tools for expert interviews, focus group discussions, and experimental games. Second, the team conducted a mission to Ethiopia. Thirty-two experts were interviewed, including government officials at different levels, heads of professional associations, healthcare providers themselves and academics. Nine focus group discussions were conducted with health workers and users. Finally an experimental game with nursing students was conducted. Based on the findings during this mission, a proposal for a quantitative survey with health workers was drafted.

Results from focus group discussion

The researchers held three group discussions, with (i) medical doctors, specialists and health officers, (ii) nurses and midwives, and (iii) health assistants, both in the capital and in a provincial town. It was found that the recent privatisation has had a strong impact on how health workers behave at the micro level, and on their perceptions.

Users argue that there is a need for politeness and respect from health workers. They say that although health workers may have the skills, they often do not apply them, especially in the public sector. The likely reason for this is that the majority of health workers are dissatisfied with their jobs. This dissatisfaction is not just focused on salaries. As Table 2.4 shows, health workers associate the public and private sectors with different job attributes.

Table 2.4 Health workers' perceptions of public and private sectors

Public sector	Private sector
Low pay	Well paid
Work time restrictions	Hard work
No resources	Resources
Training opportunities	No training
Job security	No job security
Bureaucracy	Profit-driven

It is not surprising that the ideal job from a health worker's perspective combines work in both sectors. This provides the perfect 'portfolio'. As one health worker said,

'I would recommend a person to combine a public and private sector job because the public sector has several limitations. We can apply what we have learned in the private sector, as there is a good supply of materials and facilities.'

It was found that important aspects of health workers' behaviour can be explained by their aspiring to combine work in both sectors. Absenteeism and shirking seem largely to be consequences of people attempting to do this. If health workers do not manage to get a formal private sector job, they engage in informal private health care activities. These seem to be common practice. As one health assistant put it,

'Nurses give injections at home. Most of the time it is the patient who has to buy the medicine and the nurses provide injections and change the dressing. In some cases they also prescribe. They provide a good service. They are approached very informally.'

Health workers argued that inappropriate behaviour such as embezzlement and extortion are commonplace, but not on a large organised scale. It was also found that overcharging and favouritism, as well as taking drugs and equipment out of the public facilities for private use, are common.

Results from experimental game

Embezzlement of resources is hampering public service delivery throughout the developing world. Research on the behavioural patterns underlying this issue is hindered by problems of measurement. To overcome these problems an economic experiment was used to investigate the determinants of corrupt behaviour. It focused on three aspects of behaviour: (i) embezzlement by public servants, (ii) monitoring effort by designated monitors, and (iii) voting by community members when provided with an opportunity to select a monitor. The experiment allowed study of the effect of wages, effort observability, rules for monitor assignment, and professional norms. The experimental subjects were Ethiopian nursing students.

It was found that service providers who earn more embezzle less, although the effect is small. Embezzlement is also lower when observability (associated with

the risk of being caught and sanctioned) is high, and when service providers face an elected rather than randomly selected monitor. Monitors put more effort into monitoring, when they face re-election and when the public servant receives a higher wage. Communities re-elect monitors who put more effort into exposing embezzlement. Framing – whereby players are referred to as ‘health workers’ and ‘community members’ rather than by abstract labels – affects neither mean embezzlement nor mean monitoring effort, but significantly increases the variance in both. This suggests that different types of experimental subject respond differently to the framing, possibly because they adhere to different norms.

Figure 2.2 contains a histogram of the resources (measured as number of tiles) retained or embezzled by the ‘health worker’ in the games (192 rounds in total). The distribution of embezzlement has a single mode at one tile. In over one-fifth of the rounds no tiles were retained, while in a similar proportion two were retained, and in nearly a quarter three or more tiles were retained. The mean number of tiles retained was 1.61, but varies across treatments.

Figure 2.2 Resources retained by public service providers

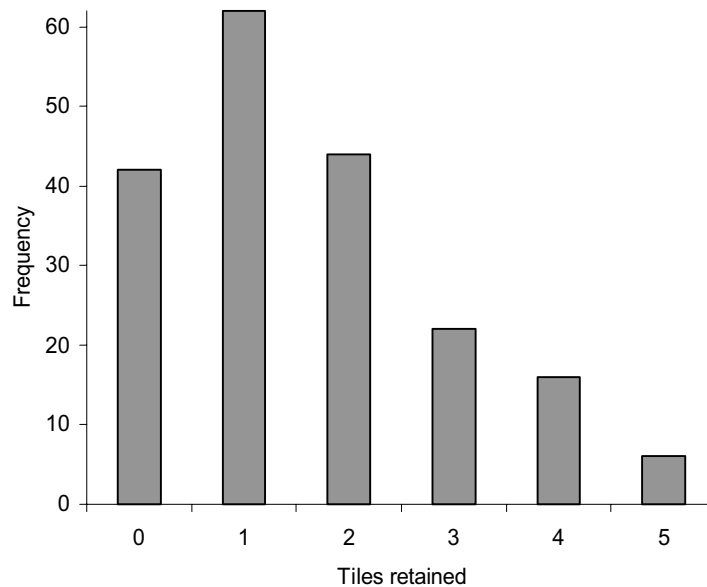


Figure 2.3 Resources retained by 'public service providers' under different treatments

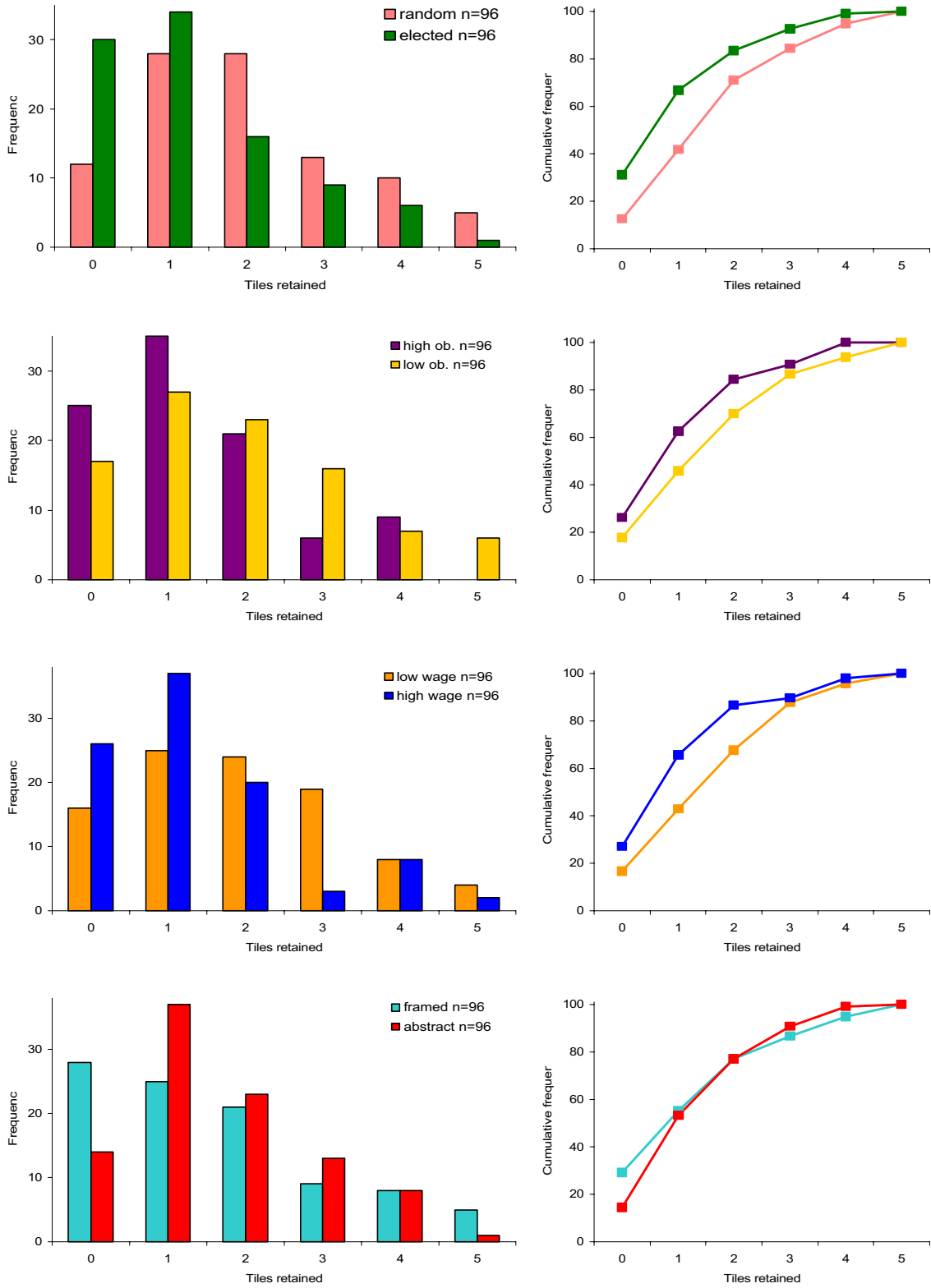


Figure 2.3 displays the histograms and cumulative distributions of the numbers of tiles retained under the different treatments. Starting at the top of Figure 2.3 it is seen that when the monitors were randomly selected, the 'health workers' retained more tiles than when the monitors were elected. The mean numbers of tiles retained were 1.96 and 1.27 respectively. The second row of graphs in Figure 2.3 indicates that observability also had an impact. When observability was high, health workers retained fewer tiles than when it was low. The mean numbers of tiles retained were 1.36 and 1.86 respectively. The third row of graphs in Figure 2.3 indicates that when health workers were paid more they retained fewer tiles. The mean numbers of tiles retained in the low- and high-wage treatments were 1.90 and 1.33 respectively. Finally, the effects of framing are complex. The mean numbers of tiles retained in the abstract and framed treatments were very similar, 1.66 and 1.57 respectively, even though the modes were distinct at one and zero. However, framing significantly increases (at the 5 per cent level) the variance in behaviour.

Regression analyses add further support to these findings.

Recent publications

Barr, A., M. Lindelow and **P. Serneels**, 'To serve the community or oneself: The public servant's dilemma', CSAE Working Paper Series, 2003-11.

Lindelow, M. and **P. Serneels**, 'The best of both worlds: Health workers in the public and private sector', World Bank Research Paper, forthcoming.

Social safety nets in Ethiopia

Part of the work in this area has focused on standard safety-net policies and the implications of the presence of informal insurance systems. The issue is that targeting has very different effects depending on whether there is informal risk sharing or not. For example, targeted transfers to specific members of a risk-sharing network have no effect if they form a perfect risk-sharing group. If the risk-sharing group is constrained by enforcement problems of perfect risk sharing, then these transfers may even have negative effects on those not receiving transfers. Poor targeting, on the other hand, will not be a serious problem if there are strong risk-sharing networks – they will share the transfers anyway. Focusing on food aid in Ethiopia, it is indeed found that some risk sharing is present at the village level, including sharing of food aid. At the same time, targeting is relatively poor – with the poorest groups not necessarily receiving support. The result is, however, that despite poor targeting, the overall effect of food aid is beneficial for these poor groups, thanks to informal insurance arrangements. There is, however, also some evidence of crowding-out of other forms of insurance due to the presence of food aid: in villages with food aid, there is less evidence of informal support against idiosyncratic risk. The conclusion is that to assess the impact of safety nets, it is necessary to take into account the presence and functioning of informal systems.

Recent publications

Dercon, S. and P. Krishnan, 'Risk-sharing and public transfers', *Economic Journal*, C86–C94, 2003.
See also WIDER DP2002/85.

Dercon, S. and P. Krishnan, 'Food aid and informal insurance', in Stefan Dercon (ed.), *Insurance Against Poverty*. Oxford: Oxford University Press, 2003.

Dercon, S., P. Collier and J. Mackinnon, 'Density versus quality in health care provision: Using

household data to make budgetary choices in Ethiopia', *World Bank Economic Review*, 425–48, 2002.

Implications of uninsured risk

Research in this area has been focusing on the long-term implications of uninsured risk. The fact that households may well respond ex-ante to risk by reducing risky activities and reducing the risk in their asset portfolios, has implications in the long run for the average incomes households will earn. Furthermore, the shocks due to uninsured risk can have long-term implications, from the destruction of physical assets to the reduction of human capital, such as a decline in health or lower learning ability.

In a number of draft papers, the evidence was investigated further. A paper by Stefan Dercon and John Hoddinott focused on the long-term health implications of shocks. Especially for children, drought has persistent effects, leading to lower height and lower educational outcomes, all resulting in lower lifetime earnings. In another paper, a review of the poverty entrapment arguments and evidence related to risk and shocks is presented. While there is suggestive evidence from many sources, persistent effects have rarely been identified in the empirical literature, and present a major research question for the future. This work was furthered by means of an investigation of the persistent effects of big shocks – such as the famine of 1984–85 in Ethiopia – on long-term growth and welfare levels using panel data in rural Ethiopia. Long-lasting effects from droughts are found, although ultimately households may recover. Asset data suggests that this may take a long time: in the panel data survey in Ethiopia, it took until the mid-1990s for livestock numbers to recover to the levels before the famine in 1984.

Limited protection from risk has important implications for poverty: it may indeed be a cause of a poverty trap, a self-enforcing equilibrium outcome with low welfare levels from which escape is extremely difficult.

Recent publications

Dercon, S., 'Safety nets, savings and informal social security systems in crisis-prone economies', in J. Stiglitz and P.-A. Muet, *Governance, Equity, and Global Markets: The Annual Bank Conference on Development Economics – Europe*, Oxford: Oxford University Press, 2001.

Dercon, S. and J. Hoddinott, 'Health, shocks and poverty persistence', in Stefan Dercon (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2004.

Dercon, S. (ed.), *Insurance against Poverty*, Oxford: Oxford University Press, 2004.

Dercon, Stefan, 'Risk, poverty and public action', in Stefan Dercon (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2004.

Dercon, S., 'Poverty traps and development: the equity–efficiency trade-off revisited', paper prepared for the Agence française de développement, EUDN, 2003.

Trade and social capital

One of the key policy issues in Africa has been the impact of agricultural market reforms on the efficiency with which the trading system operates. During the year, Marcel Fafchamps has been engaged in analysis of a major study of traders in Benin, Madagascar and Malawi. This subsection discusses some of its key findings and their importance for policy.

The objective of this study was to document traders' assets, their trading practices and commercial activities, and their capacity to undertake spatial and temporal arbitrage. The study presents original evidence for Benin, Madagascar

and Malawi on how traders' assets, including financial, physical, human and social capital, influence their commercial activities and, ultimately, their arbitrage behaviour. An enduring puzzle in the market literature in sub-Saharan Africa, on which this study throws light, is why marketing margins remain high despite reforms and the relative lack of sophistication of liberalised markets.

The approach taken in this study was to empirically investigate traders' assets and trading practices and link these not only to evidence on traders' gross margins but also to their net margins using detailed data on marketing, operating and transaction costs. The study is based on a conceptual framework where policy, institutions and infrastructure are exogenous to the behaviour of traders in the market.

Assets and business practices are also influenced by the existence or lack of formal market institutions, such as commercial law and dispute settlement mechanisms, inspection services, referral agencies, trade associations and information systems. Both assets and business practices, along with infrastructure items such as roads, vehicle fleets, communications and public storage facilities, directly influence the extent of traders' commercial activities and can be viewed in terms of purchases and sales, as well as their transport, storage and transformation of agricultural products.

Finally, the analysis considers the links between traders' assets and practices, as well as their commercial activities, and the efficiency of their market activities. This broad framework enables the analysis of whether better-endowed traders are more or less efficient, whether larger firms in terms of scale or scope of activities influence efficiency, and the impact of trading practices on commercial behaviour.

The study takes a comparative focus on trader performance between Benin, Madagascar and Malawi, which adds a rich dimension to the analysis. Benin, in francophone West Africa, represents an environment in which private market activity has a long history and in which government intervention has traditionally been limited, except in cotton. In sharp contrast, Malawi, along with other countries in Eastern and Southern Africa, has had, until recently, extensive state intervention in marketing and protection of smallholders. Madagascar represents yet another environment, with a history of governmental intervention in rice markets, leading more recently to a hands-off approach. Thus, the comparative focus provides insights on the role of history and tradition in shaping trading norms and in asset accumulation.

Many of the documented features of how agricultural traders operate in Benin, Madagascar and Malawi were well known – small size of businesses, lack of equipment, rudimentary business practices and the dominant role of transport costs. Other features were less well known, such as the importance of personal travel, bagging practices, the short distances over which most traders operate, and the incidence of theft and breach of contract.

The study dispelled some myths. For instance, it documented the absence of speculative, interseasonal storage for the overwhelming majority of traders, and the relatively low returns to storage in general. It showed that advances from traders to farmers are of short duration – one to two weeks. Their main purpose is not to exploit farmers' need for cash to finance agricultural production, but rather to provide a means for traders to secure future deliveries.

The picture that emerges from this analysis is one dominated by transport –

for goods and for traders. Because trading enterprises are small, the quantities they can gather from any one market are limited by what the trader can reliably locate, finance and inspect. As a result, transport takes place in small vehicles – pick-up trucks for the most part. An inordinate amount of personal travel takes place as well, since traders must inspect the goods they purchase and payment is normally in cash upon delivery.

Surveyed traders appear to work effectively under the constraints they face, which are many – for example, limited external finance, no brand names or trademarks, no certified quality, no organised commodity exchange, and extremely decentralised production and consumption. They rely on networks to share information and discourage breach of contract, and are able to perform an essential trading function in a flexible and expeditious manner. But the end result nevertheless is a costly system that provides a limited service to consumers and producers.

The modernisation of agricultural trade requires that original solutions be found to the genuine problems that traders face. The only ‘modern’ technologies that traders in Benin, Madagascar and Malawi seem to be using at this point are motorised transport and pest control. Telephones and banks are ignored. Brand recognition, grading and quality certification are non-existent. Brokers and agents are not organised in commodity exchanges. Quantities are not pooled for transport and storage so as to achieve returns to scale. Interseasonal and interregional arbitrage is outside the purview of most traders, who prefer to operate in a small territory on a day-to-day basis. By extension, an entire continent is fed using a rudimentary, costly and risky set-up.

The information presented in the study provides some important insights into how agricultural trade can be improved. Policy interventions can be conceived in four main areas: (i) increasing traders’ asset base, (ii) reducing transaction risk, (iii) promoting more sophisticated business practices, and (iv) reducing physical marketing costs.

In respect of margins, the comparison between Benin, Madagascar and Malawi is instructive. Gross margins and unit profits are noticeably lower in Benin than in Malawi. At the same time there appears to be more competition and smaller trading firms in Benin, which would suggest that more competition favours smaller margins. Population density is also much higher in Benin than in the other two countries and crop production is spread more evenly over the year. This implies more geographical concentration in traders’ operations, and less need for storage. Together, these features could explain the lower costs of intermediation in Benin.

The work shows that rudimentary business practices can largely be blamed on transaction risk. Payment takes place at delivery, a practice that precludes invoicing and payment by cheque and complicates accounting. Business networks have developed as a partial palliative to these problems, but they are insufficient to eliminate them. It is not entirely clear how in practice transaction risk can be reduced. One institutional innovation that could potentially reduce transaction risk would be for market authorities to take a proactive stance. Membership of traders’ associations could in principle be used as a guarantee of good conduct. An association equipped with a grain-dryer and simple grading equipment could bag and certify its products in a manner that is difficult to falsify. Assured of the

quality of the goods, buyers may be more willing to place orders by telephone.

Traders in Benin, Madagascar and Malawi manage to feed the populations of their countries by collecting and distributing food among millions of producers and consumers. They do so in difficult circumstances and demonstrate great ingenuity. Perhaps even more remarkably, many of them appear to be making a living from their trading activity. All this notwithstanding, business practices appear inefficient. As argued earlier, exchange takes a cumbersome form. This enables a myriad of small traders to compete with larger ones. But cumbersome practices increase the costs of the entire marketing system.

For more information, see Marcel Fafchamps and Eleni Gabre Madhin, 'Agricultural markets in Benin and Malawi: operation and performance of traders': <http://www.economics.ox.ac.uk/CSAEadmin/reports/main.html>.

Recent publications

Fafchamps, M., *Market Institutions in Sub-Saharan Africa*, Cambridge, MA: MIT Press, 2004.

Fafchamps, M. and S. Durlauf, 'Empirical studies of social capital: A critical survey', in Steven Durlauf and Michael Brock (eds), *Handbook of Growth Economics*, forthcoming.

Fafchamps, M., and **Ruth Hill**, 'Selling at the farm-gate or travelling to market', mimeo, 2004.

Fafchamps, M., **Ruth Hill**, Aliziki Kaudha and Robert Nsibirwa, 'The transmission of international commodity prices to domestic producers', mimeo 2003.

Fafchamps, M., 'Ethnicity and networks in African trade', Contributions to Economic Analysis & Policy, Berkeley Electronic Press at www.bepress.com, 2(1): article 14, 2003.

Fafchamps, M., 'Spontaneous market emergence', Topics in Theoretical Economics, Berkeley Electronic Press at www.bepress.com, 2(1), article 2, 2002.

Fafchamps, M., 'Spontaneous market emergence and social networks', in Gabrielle Demange, Debraj Ray and Myrna Wooders (eds), *Group Formation in Economics: Networks, Clubs and Coalitions*, Cambridge University Press, forthcoming 2004.

Fafchamps, M., E. Gabre Madhin and B. Minten, 'Increasing returns and market efficiency in agricultural trade', CSAE Working Paper Series 2002-18.

Fafchamps, M. and B. Minten, 'Returns of social network capital among traders', *Oxford Economic Papers*, 54, 173–206, 2002.

Fafchamps, M., 'The role of business networks in market development in sub-Saharan Africa', in Masahiko Aoki and Yujiro Hayami (eds), *Community and Markets in Economic Development*, Oxford University Press, forthcoming.

Extension services and farm productivity in Zimbabwe

In this project a group of researchers working on rural households in Zimbabwe have revisited the contested issue of the impact of agricultural extension on farm production. They exploit two features of the data available: its longitudinal nature and explicit measures of farmer ability. It is found that after controlling for innate productivity characteristics and farmer ability, either by using household fixed effects estimation or by including a measure of farmer ability and village fixed effects, access to agricultural extension services – defined as receiving one or two visits per agricultural year – raises the value of crop production by about 15 per cent. This parameter estimate is statistically significant. However, the researchers also find variability in these parameter estimates across individual crop years, with the impact being markedly different in drought and non-drought years. Collectively, these results suggest that although access to farm-level extension visits does increase productivity even after controlling for innate productivity characteristics and farmer ability, results from single-year cross-sectional studies should be treated with caution.

Recent publication

Owens, T., J. Hoddinott and B. Kinsey, 'The impact of agricultural extension on farm production in resettlement areas of Zimbabwe', *Economic Development and Cultural Change*, 51(2), 337–57, 2003.

Public policy and drought in Zimbabwe

This study examines the consequences of alternative public responses to drought shocks. It does so by drawing on household data from resettlement areas of rural Zimbabwe over the period 1992/93 to 1995/96 and the estimation of four behavioural relations: the determinants of crop income; the determinants of investment in livestock; the determinants of investment in agricultural capital stock; and the determinants of private transfers. This information is used to construct a series of simulations in which drought relief received in the aftermath of the 1994/95 drought – the ex post response – is made available to households in the form of agricultural capital stock and extension advice – an ex ante action. This is found to raise household welfare in non-drought years, but provides only limited protection in the aftermath of drought.

Recent publications

Owens, T., J. Hoddinott and B. Kinsey, 'Ex ante actions and ex post public responses to drought shocks: Evidence and simulations from Zimbabwe', *World Development*, 31(7), 1239–55, 2003.

Owens, T., 'External support during the transition phase: Roles for humanitarian aid and development assistance', mimeo, 2003.

Theme 5: Governance, social norms and social outcomes

The final theme for the Research Group is another aspect of well-being which has been the subject of much recent research, that of governance. An example is the role of corruption and the rule of law in the determination of social outcomes. Such issues have a direct impact on social well-being and indirect impacts through the effectiveness with which society can deliver both material goods and quality public services.

Institutions and development in Uganda

The research instruments that have been used to analyse both household and firm data are being developed by researchers at the Centre to investigate issues of institutional quality. In Uganda the NGO sector has been growing in size since the 1980s. As donors and governments try to work more closely with NGOs, there is a growing need for accurate data on the activities and capacity of the sector. The Ugandan government's motivation for this NGO survey is its desire to upgrade its partnership with the NGO sector in order to enable the sector to participate effectively in service delivery, and raise the pace of development in rural areas and of poverty eradication nationwide.

Historically, in Uganda, most NGOs were charity-driven religious institutions. However, with the onset of the National Resistance Movement (NRM) Administration in Uganda (from 1986), there has been an explosive growth in the number of NGOs, especially in the service delivery sectors, such as health, education, micro-finance, roads, water and sanitation, and agriculture.

In the late 1980s, the Government of Uganda (GOU) decided that all NGOs operating in Uganda should be registered with the Ministry of Internal Affairs and operate under the regulations and policy advocacy of the Office of the Prime

Minister. This policy decision to manage this fast-growing sector, through registration with a National NGO Registration Board, was enacted into law in 1989 (NGOs Registration Statute). This was amended in 2000 (NGOs Registration Amendment Act). Additionally, a decision to create an NGO database was made in the same year (2000). The total number of NGOs registered with the Ministry of Internal Affairs was about 3,500 in 2000/2001, much bigger than the number of registered private sector establishments (about 2500).

However, the sector is beset by a number of structural problems, including: non-registration with the NGO Board; existential uncertainties, such as incidences of phantoms (non-existent NGOs), ghosts (non-performing or 'dead' NGOs), delinquencies (not performing according to declared mandates); data paucity; and poor policy framework.

Therefore, the GOU has designed a study to address the above (and other related) shortcomings with the data currently available. Through two surveys – a detailed questionnaire administered to 300 NGOs (100 in Kampala, 200 in the districts), and a focus group interview administered to the community in which the NGO operates – the Government aims to define the following: the population characteristics of NGOs; the major functions/roles of NGOs in the economy of Uganda; the type and nature of services delivered by NGOs; areas for capacity building in the NGO sector; well-defined collaboration efforts of NGOs as partners with government in development; performance benchmarks for NGOs; a monitoring and evaluation system (for performance of NGOs).

The World Bank is conducting a study of NGOs as service providers in developing countries. The objectives of the study are to describe the work of development NGOs in Bangladesh and Uganda, assess their effectiveness and efficiency, analyse resource flows to and from NGOs and incentives within the organisations, and understand what factors motivate NGOs and their staff. To that end, the World Bank is collaborating with the CSAE to compile, clean and analyse data from surveys of NGOs in Uganda and Bangladesh, and then to co-author academic papers based on the data.

Corruption and firm performance in Africa

In this part of the programme, measures of the quantitative importance of corruption are being investigated. Survey data is used to investigate empirically the importance of corruption in determining firm performance in Africa. The researchers allow for the possibility of perception bias on the part of the respondents and for corruption being endogenous. They find that corruption is linked to significant adverse effects on firm performance in two ways. At the firm (or 'local') level, companies that pay bribes have 20 per cent lower levels of output per worker. At the economy-wide (or 'global') level, firms in countries with pervasive corruption are some 70 per cent less efficient than firms in countries free of corruption. The project thus provides evidence that competitive uncoordinated local corruption has substantial global effects.

Recent publication

McArthur, J. and **F. Teal**, 'Corruption and firm performance in Africa', CSAE Working Paper Series 2002-10.



Section 3: Centre projects

The previous section reviewed work undertaken at the Centre as part of the Global Poverty Research Group. This is only a part of the research carried out at the Centre. In this section, we provide an overview of other projects within the Centre: the analysis of the causes and consequences of civil war, work on the macroeconomics of South Africa, and micro work on households, labour markets, firms, and industrial and agricultural performance in Africa.

Civil wars and global security challenges: A quantitative economic perspective

Paul Collier and Anke Hoefler

Introduction

Most wars are now civil wars. Although international wars attract enormous global attention, they have become infrequent and brief. Civil wars usually attract less attention, but they have become increasingly common and typically go on for years. This project investigates the importance of civil war for development. War retards development, but conversely, development retards war. This double causation gives rise to virtuous and vicious circles. Where development succeeds, countries become progressively safer from violent conflict, making subsequent development easier. Where development fails, countries are at high risk of becoming caught in a conflict trap, in which war wrecks the economy and increases the risk of further war. The work on both the consequences and the causes of civil wars is reviewed here.

The effects of civil wars

The first part of the research project has been investigating the economic and social costs of civil war. The costs borne by the active participants in combat form only a small part of the overall suffering. The damage from a war ripples out in three rings.

The first, or inner, ring is the displacement, mortality and poverty inflicted on non-combatants within the country. By the end of the typical civil war, incomes are around 15% lower than they would otherwise have been, implying around 30% more people in absolute poverty. But the end of civil war is not the end of the costs arising from it. Many of the economic costs, such as high military expenditure, and capital flight, persist for years after the conflict. So, too, does heightened mortality and illness. Approximately half of the loss of disability-adjusted years of life expectancy due to a conflict arises after it is over. These economic and health costs of conflict are not usually compensated by any post-conflict improvements in economic policy, democratic institutions, or political freedom. On the contrary, all three usually deteriorate. The typical civil war starts a prolonged process of development in reverse.

The second ring of suffering affects neighbouring countries. The project analyses the spillover effects from civil war beyond the country. Refugees stream across borders carrying and spreading the infections to which they have been exposed. Neighbouring economies suffer in that growth rates are significantly

reduced, and neighbours increase their military expenditure in a chain reaction of local arms races. Often, the cost of a civil war to the combined neighbouring countries is of the same order of magnitude as the costs to the country itself. Through all of these routes civil war is a regional public bad.

The outer, or final, ring of suffering is global. Civil war creates territory outside the control of any recognised government. One major use for this territory is the production and transportation of drugs: 95% of the global quantity of hard drugs is produced in countries with civil wars, and the major supply routes run through conflict territories. Another global cost of civil war is the current AIDS pandemic. Some evidence suggests that infection rates rise rapidly during a civil war. A further global shock to which civil war has contributed is Al Qaeda. When international terrorism is conducted on a large scale, the organisation needs a safe haven that can probably only be provided in territory outside the control of any recognised government. Al Qaeda chose to locate in the Taliban-held territory although most of its recruits were not Afghans. It also used the war in Sierra Leone to generate profits from the trade in conflict diamonds and to store its wealth. The global mortality caused by hard drugs and international terrorism is a significant toll, but the wider social costs are immense. Estimates suggest that the terrorist attacks of 11 September 2001 alone may have raised global poverty by 10 million people.

There is no reason to think that those who decide on civil war – the active participants, and more particularly a few leaders – take all this suffering of others into account. Further, many of these adverse effects are highly persistent. The typical civil war lasts around seven years, but the damage persists well beyond the end of the conflict. Once disease has set in, it can take many years of peace to get back to pre-conflict health states and mortality rates. Once an economy has experienced a wave of capital flight and emigration this tends to continue even when the conflict is over. The regional escalation in military expenditure can persist because there is insufficient coordination to reduce it. In many cases most of the costs of a civil war occur only once it is over.

The causes of civil war

The second part of the research project concentrates on the determinants of the global incidence of civil war. Some countries are more prone to civil war than others. Of course, each civil war is different and has its own distinctive idiosyncratic triggers – a charismatic rebel leader, a provocative government action. But beneath these chance circumstances there are also patterns. Some social, political and economic characteristics systematically increase the incidence of civil war. It is found that ethnicity and religion are much less important than is commonly believed. Indeed, societies that are diverse mixtures of many ethnic and religious groups are usually safer than homogeneous societies. By contrast, economic characteristics matter more than has usually been recognised. If a country is in economic decline, is dependent upon primary commodity exports, and has low per capita income, unequally distributed, it is at high risk of civil war. There are several reasons why this combination raises the risk of civil wars. Low and declining incomes, badly distributed, create a pool of impoverished and disaffected young men who can be cheaply recruited by ‘entrepreneurs of violence’. In such conditions the state is also likely to be weak and incompetent,

offering little impediment to the escalation of rebel violence, and maybe even inadvertently provoking it. Natural resource wealth provides a source of finance for the rebel organisation, and encourages the local population to support political demands for secession. It is also commonly associated with poor governance.

Once such a country experiences a civil war its risk of further conflict soars. Conflict weakens the economy and leaves a legacy of atrocities. It also creates leaders and organisations who have invested in skills and equipment that are only useful for violence. Disturbingly, while the overwhelming majority of the population in a civil war-affected country suffer from it, the leaders of military organisations that are actually perpetrating the violence often do well out of it. Rebellion is seldom motivated predominantly by the prospect of financial gain, but for some it can become a satisfactory way of life. There is some evidence that, decade by decade, civil wars have been getting longer. While this may be due to circumstances in individual countries, it is more likely to reflect global changes that have made civil wars easier to sustain. Various developments have made it easier for rebel groups to raise finance and acquire armaments.

Globally, over the past forty years the incidence of civil war has substantially increased. Since this has been a period of unprecedented global economic development it might appear evident that development has not been an effective remedy for violent civil conflict. But to make sense of the patterns, it is necessary to distinguish between different groups of countries.

Many developing countries either have already reached middle-income status, or have policy and institutional environments that should put them on track to do so. Around four billion people live in such countries. Currently, as a group they face a risk of civil war four times as high as the negligible risk faced by OECD societies. Thirty years ago their risk was five times as high, so they are converging with the group of countries already in secure peace.

However, over a billion people live in low-income countries that have not been able to adopt and sustain policies and institutions conducive to development. On average, these countries have been in economic decline and have remained dependent on natural resources or other primary commodities. Such countries face far higher risks – typically around fifteen times as high as the OECD societies. Indeed, these risks have been rising as economies have deteriorated. Forty years ago there were many fewer independent low-income countries. Most low-income countries were under the imposed peace of colonialism, or were fighting liberation wars. Cumulatively, many of them have stumbled into conflict, and where this happened the conflict trap implied an even higher risk of further conflict. It is this group that increasingly accounts for the global incidence of conflict.

Hence, the overall trend in the global incidence of conflict is made up of two radically divergent components. For most of the world's population development has been significantly reducing risks. But a significant minority of people live in low-income countries that have not shared in development. For them risks have been increasing.

If these two opposing forces persist, the global incidence of conflict will not continue indefinitely to rise, but nor will development secure global peace. The world will find itself stuck with a steady-state incidence of civil war, determined

predominantly by the large and persistent pool of non-developing low-income countries. These countries will account for a small and diminishing share of global income, but from them will originate a high share of the regional and global spillovers from civil war.

Ongoing research

The researchers aim to further the understanding of the causes and consequences of civil wars. Within this research project they plan to merge new datasets with their existing database in order to address a number of important research questions. The conflict and explanatory variables are drawn from a number of different databases, covering economic, social, political, historical and geographic characteristics of the country. Although it has been possible to determine certain patterns that make a country more prone to civil war, there are a number of issues it would be desirable to address in this research project. The work on the consequences of civil war has so far concentrated on the economic costs of civil war. The direct costs of war in terms of fatalities and casualties are likely to be much smaller than the ongoing costs in terms of lower economic development and growth resulting in an increase in infant mortality and a number of communicable diseases long after the fighting stops. There are only a few empirical cross-country studies on the human and economic costs of civil war. However, recent work by political scientists examines civil war as a public health problem. Using new data on mortality rates and disease burden, the researchers will build on this research and contribute towards an integration of the analysis of the human and economic cost of civil war.

Recent publications

- Hoeffler, A.**, 'The augmented Solow model and the African growth debate', *Oxford Bulletin of Economics and Statistics*, 64(2), 135–58, 2001.
- Collier, P., A. Hoeffler** and C. Pattillo, 'Flight capital as a portfolio choice', *World Bank Economic Review*, 15(1), 55–80, 2001.
- Azam, J.-P., **P. Collier** and **A. Hoeffler**, 'International policies on civil conflict: An economic perspective', mimeo, 2001.
- Hoeffler, A.**, 'Openness, investment and growth', *Journal of African Economies*, 10(4), 470–97, 2001.
- Bond, S., **A. Hoeffler** and J. Temple, 'Panel data estimators and cross-country growth regressions', CEPR Working Paper 3048, Centre for Economic Policy Research, 2001.
- Collier, P.** and **A. Hoeffler**, 'Über die Ökonomischen Ursachen von Bürgerkriegen', in H. J. Albrecht and H. Entorf (eds), *Kriminalität, Ökonomie und Europäischer Sozialstaat*, Heidelberg: Physica Verlag, 2003.
- Collier, P., A. Hoeffler** and C. Pattillo, 'Africa's exodus: Capital flight and the brain drain as portfolio decisions', mimeo, 2002.
- Collier, P.** and **A. Hoeffler**, 'Aid, policy and peace', *Defence and Peace Economics*, 13(6), 435–50, 2002.
- Collier, P.** and **A. Hoeffler**, 'Greed and grievance in civil wars', CSAE Working Paper Series 2002-01.
- Collier, P.** and **A. Hoeffler**, 'Military expenditure: Threats, aid and arms races', World Bank Policy Research Working Paper 2927, Washington, D.C., 2002.
- Collier, P.** and **A. Hoeffler**, 'On the incidence of civil war in Africa', *Journal of Conflict Resolution*, 46, 13–28, 2002.
- Azam, J.-P. and **A. Hoeffler**, 'Violence against civilians in civil wars: Looting or terror?', *Journal of Peace Research*, 39, 461–85, 2002.
- Collier, P., A. Hoeffler** and C. Pattillo, 'Aid and capital flight', paper presented at the UNU/WIDER conference on Sharing Global Prosperity, Helsinki, 6–7 September 2003.
- Collier, P., L. Elliot, H. Hegre, A. Hoeffler, M. Reynal-Querol** and N. Sambanis, 'Breaking the

conflict trap: Civil war and development policy', World Bank Policy Research Report, Oxford: Oxford University Press, 2003.

Collier, P. and **A. Hoeffler**, 'Military expenditure in post-conflict societies', mimeo, 2003.

Collier, P. and **A. Hoeffler**, 'Aid, policy and growth in post-conflict societies', *European Economic Review*, forthcoming 2004.

Collier, P., A. Hoeffler and **M. Söderbom**, 'On the duration of civil war', *Journal of Peace Research*, forthcoming 2004.

Collier, P. and **A. Hoeffler**, 'The political economy of secession', in H. Hannum and E. F. Babbitt (eds), *Negotiating Self-Determination*, forthcoming 2004.

Structural macro-modelling of the South African economy

Janine Aron and John Muellbauer

Introduction

South Africa recently became the first African country to follow the sweeping trend in OECD countries by adopting inflation targeting. The advertised international success of inflation targeting has occurred in a period of low inflation and relatively low volatility in inflation and output. Recent currency volatility in South Africa and Brazil has raised questions about the usefulness of inflation targeting in emerging and developing economies. Several developing countries, such as Uganda, are scrutinising the institutional design and performance in South Africa for their own future monetary management. There are key policy questions, both for South Africa itself and for other African countries. These include (i) the sustainability of inflation targeting or a hybrid monetary policy rule under terms of trade shocks and highly volatile capital flows; (ii) the output costs entailed by inflation targeting versus other types of monetary policy rules – and the role of the exchange rate in a hybrid rule; (iii) greater clarity on the mechanisms of monetary transmission (through estimating empirical models); (iv) the institutional and technical demands placed on governments as regards transparency and governance, and in modelling and forecasting with limited capacity; and (v) how to develop deeper bond and money markets for improved monetary transmission.

Despite their importance, little rigorous research on these issues has been conducted on developing countries, especially those in Africa. Now, three consecutive projects funded by DFID until 2006 analyse policy questions for the viability of inflation targeting in South Africa, with implications for sustainable growth. While competent econometric modelling is needed, African central banks often lack capacity. The researchers aim to translate lessons from their research on South Africa to other African countries. To this end, they have established the African Central Banking Network to conduct collaborative research with African central bankers in various countries into future monetary policy issues.

Activities

The role of monetary policy in South Africa is currently the subject of considerable domestic policy debate. The policy findings from this project will be of interest to emerging economies in Africa, and elsewhere. The project involves collaboration with South African policy makers at the highest level; and collaboration and capacity building through the African Central Banking Network with various African central banks.

How are price indices constructed in South Africa?

South Africa adopted inflation targeting in 2000, targeting the overall consumer price index (CPI) excluding mortgage interest cost (or CPIX), pertaining to metropolitan and urban areas. South Africa lacks a clear technical account of the methodology of the construction of CPI and CPIX, such as is published by reputable government statistical agencies in other countries. A new paper attempts to make a positive contribution to the future publication of a handbook of CPI methodology for South Africa by explaining aspects of the methodology. Further, while the CPIX ('metropolitan and urban areas') measure only became relevant to monetary policy setting and wage contracts from 2000, and is published monthly only from 1997, a far longer time series is required for forecasting and modelling exercises, such as are carried out by the inflation-targeting central bank. This project produces monthly estimates of CPIX (for metropolitan areas) back to 1970 on a consistent methodology employing price indices and the appropriate weighting and linkages when rebasing. This data differs somewhat from constructed monthly data on the Statistics South Africa website (back to 1994). It also differs substantially from internal South African Reserve Bank (SARB) quarterly estimates of historical CPIX data used by SARB modellers and the IMF.

A structural model of the inflation process for South Africa

The researchers have modelled the wage/price sector in South Africa, with the aim of contributing to an understanding of the detailed channels of transmission from interest rates to inflation, and, in particular, of the important role of wage setting. They have built a 7-equation structural model of the inflation process in South Africa, which includes the exchange rate, consumer prices, producer prices, food prices, import prices, unit labour costs and house prices. The approach is in the tradition of central bank models of the inflation process, but carefully tests for asymmetries, structural breaks and expectations effects, with systems as well as single-equation models. This provides useful information on the speed and extent of exchange rate pass-through, and illuminates the various channels through which monetary policy influences inflation.

Forecasting aggregate price indices and price components in South Africa

Earlier work on multi-step forecasting models of consumer price inflation using the consumer price deflator in South Africa has been updated, by extending the method to four-quarter ahead forecast models for aggregate CPI and the policy target, or CPIX. Inflation is a far from homogeneous phenomenon, but this fact is ignored in most work on consumer price inflation. A new paper extends the modelling innovations of this work to the main price sub-indices of CPIX for a more accurate overall inflation forecast, and a better understanding of inflationary pressures for particular components of the basket of consumer spending. The ten sub-components of the consumer price index for South Africa are modelled separately and forecast a year ahead. The method combines equilibrium correction models in a rich multivariate form with the use of stochastic trends estimated by the Kalman filter. Key innovations in the paper are the use of a multi-step four-quarter ahead model; focusing on long-run properties of the

model with inflation viewed as part of the process of relative price adjustment; and quantitatively measuring the role of import liberalisation in reducing inflation. Aggregating the forecasts of the ten components, with the appropriate weights from the overall index, shows whether there are gains to be made in forecasting the idiosyncratic sectoral behaviour of prices, over forecasting the overall consumer price index.

Exchange rate pass-through, equilibrium exchange rates and alternative monetary rules: Explorations with a small macro-model for South Africa

This new proposal emphasises a systems approach for modelling inflation, exchange rate pass-through, equilibrium exchange rates and monetary transmission channels for monetary policy in South Africa. The researchers are extending their small model of the inflation process, to a 15-equation structural system that will allow a fuller understanding of monetary transmission by taking important feedback effects into account. This brings to fruition their research under DFID on monetary transmission with full asset prices and the credit channel, the role of financial liberalisation, structural breaks and expectations, and links with their work on consumption, saving, money demand, and investment. This research will improve on current systems models for South Africa, especially given their proposed comprehensive treatment of expectations, domestic asset prices in monetary transmission, policy regime changes and structural breaks. Rigorous research on the potential role of alternative policy rules is now needed. To date, the only published research on monetary policy rules in South Africa has been carried out under these DFID-funded projects. Simulations using the structural macro-model comparing growth and inflation outcomes under pure inflation targeting with alternative policy rules will be close to the research frontier, and relevant in other countries too.

Related research on South Africa

Related work on South Africa is in progress. One aspect of collaboration with the South African central bank is examination of the detailed institutional design and mode of operation of the targeting regime in a comparative light, to assess the transparency of the system. A second aspect is work with National Accounts economists from the South African central bank, where, interacting with the UK Office of National Statistics, the researchers aim to initiate the first compilation of wealth stocks by the central bank. Neither the South African Reserve Bank (SARB) nor any other government statistical agency publishes balance sheet wealth estimates for South Africa on a market value basis, of the type produced by the US Federal Reserve Board, the Bank of England and the Office of National Statistics in the UK, and comparable organisations in Japan and elsewhere. The first coherent set of aggregate personal sector wealth estimates at market value was constructed for South Africa at a quarterly frequency in the DFID project (recently revised in a new paper). Linking such data with the researchers' own historical estimates will allow significant modelling improvements – as they have demonstrated using their wealth data in output, money demand and consumption models (new versions of two of these papers are in progress with the revised wealth estimates). Such aggregates should be

important components in macro-models used by the SARB to forecast inflation and other economic indicators, which inform interest rate setting policy under inflation targeting.

The African Central Banking Network

South Africa's experience with a rules-based framework is of interest to her African neighbours with floating exchange rates, for their own future monetary management. The African Central Banking Network (ACBN) will introduce new thinking on monetary policy issues with applications to participating countries. In the first year, governance and monetary policy operational issues will be explored with this network together with an Africa-based political scientist, providing the first detailed comparative review of the monetary policy environment in the participating countries. A natural extension is the adaptation of the researchers' single-equation forecasting models and systems approaches in modelling inflation in South Africa to the different structural environments of other low-income countries. These countries do not have rigorous inflation-forecasting models, and this represents a principal constraint to moving to targeting-type monetary framework. A pilot study is in progress with an ACBN researcher from the Bank of Uganda, where the researchers have compiled a detailed data appendix towards estimating multi-step forecasting models for food price inflation, total inflation and non-food inflation, taking account of structural breaks and regime shifts. It explores data availability and quality, and constructs the proxies for theoretical variables used in the researchers' South Africa work on forecasting and modelling inflation, as well as others (e.g. a comprehensive rainfall index). This work will be of great interest to the Bank of Uganda in exploring the key determinants of inflation, essential for sensible monetary policy.

Recent publications

- Aron, J.,** J. Muellbauer and B. Smit (Bureau for Economic Research), 'Understanding the inflation process in South Africa.' Keynote address, Eighth Annual Conference on Econometric Modelling for Africa, Stellenbosch University, South Africa, 1–4 July 2003 (see <http://www.csae.ox.ac.uk/resprogs/smmsae/pubs-etc.html>).
- Aron, J.,** J. Muellbauer and J. Prinsloo (South Africa Reserve Bank). 'The feasibility of compiling wealth estimates for South Africa', mimeo (also <http://www.csae.ox.ac.uk/resprogs/smmsae/nontechs/nontech10.html>).
- Aron, J.** and J. Muellbauer. 'Wealth, financial liberalisation and the demand for broad money', mimeo (also <http://www.csae.ox.ac.uk/resprogs/smmsae/nontechs/nontech02.html>).
- Aron, J.** and J. Muellbauer, 'Interest rate effects on output: Evidence from a GDP forecasting model for South Africa', *IMF Staff Papers* 49 (November, IMF Annual Research Conference), 185–213, 2002 (also <http://www.cepr.org/pubs/new-dps/dplist.asp?authorid=131312>).
- Aron, J.** and J. Muellbauer, 'Estimating monetary policy rules for South Africa', in N. Loayza and K. Schmidt-Hebbel (eds), *Monetary Policy: Rules and Transmission Mechanisms*, *Series on Central Banking, Analysis and Economic Policies*, Volume 4, Central Bank of Chile, pp. 427–75, 2002 (also <http://www.bcentral.cl/books/v4/v4.htm>)

Paths out of poverty

Trudy Owens

Introduction

This project aims to assist in identifying the determinants of an individual's life-time chances of escaping poverty. Comparisons are drawn between similar datasets from Tanzania and Ghana, while preliminary research focuses on Zimbabwe and the lessons that could be learnt from small farms.

Sources of data

The project not only uses household data but also explores the links between household and labour market data. Both forms of data are available for Tanzania and Ghana. The project draws on the data from two household budget surveys conducted in Tanzania and Ghana; and a panel survey of rural households in Zimbabwe. This analysis is being extended to investigate the link from the risks farmers face to their effectiveness at producing incomes. This is an example of a question that can only be answered with panel data, as it is only possible to measure the variance of income at the household level with data gained from re-interviewing the same households. The panel data for Zimbabwe is the longest in Africa and offers a unique opportunity to understand these factors as determinants of poor people's livelihoods. This work on Zimbabwe will also complement the extensive work on Ethiopia which has already been undertaken (see Section 2).

Preliminary analysis

The preliminary analysis undertaken for this project has focused on several related questions. The first is how far differences in land quality can explain differences in income or how much is due to the fact that smaller farms use land more intensively [ambiguous; ask Trudy]. The second is to assess how risk affects productivity. Both of these questions are key to establishing how rural incomes can be improved and are being addressed using the Zimbabwe panel rural data. In parallel with this analysis of rural incomes has been an investigation of how much of the rise in incomes in both Tanzania and Ghana over the 1990s was due to the rise in education, and how much the incomes of those with given levels of education increased. The Ghana data shows little rise in underlying incomes when education is controlled. The project seeks to discover whether the same will be true for Tanzania. A final part of the research has been an investigation into whether it is possible to exploit regional averages to explore the relationship between inequality and growth. All of these questions have in common a wish to understand the factors that influence the changes in incomes of individuals over time.

Four draft papers are nearing completion: 'Household composition and the effect of demographics in Ghana'; 'Who benefits from education and how? Evidence from Kenya and Tanzanian manufacturing firms' (this will be the template for a paper comparing Ghana and Tanzania); 'Earnings in manufacturing firms in Tanzania'; and 'Determinants of agricultural productivity in Zimbabwe'. It is hoped to report on the results over the next year.

Related activities

At the beginning of the project the researchers aided the Tanzanian government in cleaning both of their Household Budget Surveys, training staff in calculating poverty estimates, and preparing two reports: 'Household Budget Survey 2000/01', which summarises the key descriptive findings of the survey and the poverty estimates required for the Poverty Reduction Strategy Papers (PRSP); and 'Developing poverty predictors for household expenditure and income poverty'. The results of the Tanzanian analysis were disseminated in Tanzania to government officials and donors on a regular basis from October 2001 to May 2002. Assistance continues to be given to the government with ongoing projects using the data, most notably, the preparation of expenditure data for verifying GDP figures.

UNIDO–CSAE research collaboration programme

Måns Söderbom

Introduction

In October 1999, the Director General of UNIDO and the Vice-Chancellor of the University of Oxford signed a Memorandum of Understanding formally indicating the components of a joint two-year research programme between UNIDO and the CSAE on industrial economics in Africa. In 2002, the programme was extended for another two years. The four main components are: research on the microeconomics of African industry; collection of primary firm-level data through industrial surveys in Africa; dissemination and policy briefings; and training of UNIDO staff and African civil servants.

Activities

The lack of high-quality data is one of the major impediments for rigorous and policy relevant research on African industry. Therefore one significant component of the UNIDO–CSAE programme consists of filling this information gap through the collection of firm-level primary data. The first survey organised as part of the programme was fielded in Kenya in 2000. This survey enables researchers to link the data to the Kenyan RPED surveys, carried out in 1993–95. In 2001 the CSAE collaborated with the UNIDO Regional Industrial Development Centre, Lagos, in carrying out a manufacturing survey in Nigeria. In 2002 a follow-up survey to the fourth wave of the Tanzanian panel was carried out. In 2003 the CSAE collaborated with the World Bank in organising a survey in Kenya, which has further extended the data on Kenyan manufacturing. Country reports on Kenya, Nigeria, Ghana and Tanzania can be downloaded from the CSAE website.

Effective dissemination to policy makers is paramount for the research findings to inform policy decisions. An example of how the research is disseminated is the contribution made by the CSAE to the Business Sector Round Table on 'LDC Export Opportunities' jointly undertaken by UNIDO and ITC as part of the 'Third United Nations Conference on the Least Countries' held in Brussels, 14–20 May 2001. The paper underlying this presentation has recently been published in the African Development Perspectives Yearbook, which is

addressed to a broad audience of decision makers and experts in development projects (Söderbom and Teal, 2003b). Another example of the way in which the research is disseminated is a recently published special issue of the *Journal of African Economies*, reporting on the UNIDO–CSAE conference ‘New Industrial Realities and Firm Behaviour in Africa’. Recent policy-oriented presentations by Måns Söderbom include: ‘Constraints and opportunities in Kenyan manufacturing: Some evidence from survey data’, launch seminar, RPED Kenya 2003, organised by the World Bank and the Kenya Institute for Public Policy Research and Analysis (KIPPRA), Nairobi; ‘Pro-poor productivity enhancement in African industry: Key issues and policy options’, UNIDO, Vienna; and ‘Pro-poor firm growth in Africa’, SIDA, Stockholm.

Summary of important findings

The poor performance of many African economies has been associated with low growth of exports in general and of manufacturing exports in particular. Söderbom and Teal (2003a) draw on both macro and micro evidence from nine African countries to ask three questions. First, how close is the link between export and income growth? Second, is there evidence from these African countries that manufactured exports have led to greater economic success? Third, why has manufacturing success been so limited? Their answers to these questions are that export and income growth are very closely linked. One of the factors that limit the success of African manufacturing firms is the low level of efficiency.

A further analysis of the links between productivity and exporting is provided in Bigsten et al. (2004). The authors use firm-level panel data for the manufacturing sector in four African countries to investigate whether exporting impacts on productivity, and whether efficient firms self-select into the export market. Based on simultaneous estimation of a production function and an export regression, their results indicate significant efficiency gains from exporting, which can be interpreted as learning by exporting. They show that modelling unobserved heterogeneity by using a flexible approach is important for deriving this conclusion. A policy implication of these results is that Africa would gain from orienting its manufacturing sector towards exporting.

This research indicates that improving productivity is key to enabling African firms to compete internationally. Söderbom and Teal (2004) investigate three dimensions of the performance of firms in Ghana’s manufacturing sector: their technology and the importance of technical and of allocative efficiency. They show that the diversity of factor choices is not due to a non-homothetic technology. Observable skills are not quantitatively important as determinants of productivity. Technical inefficiency is not lower in firms with foreign ownership or older firms and its dispersion across firms is similar to that found in other economies. Large firms face far higher relative labour costs than small firms. If these factor price differentials could be levelled out, substantial gains through improvements in allocative efficiency would be possible.

Harding, Söderbom and Teal (2003) analyse competitiveness further by looking explicitly at firm dynamics. Specifically they investigate the relationships between competition (as measured by firm-specific price mark-ups), survival (as measured by firm turnover) and success (as measured by firm growth). The authors use a pooled dataset of firms in Ghana, Kenya and Tanzania for which

sufficiently long runs of data exist to be able to examine longer-term issues such as the determinants of productivity growth. The results provide evidence in favour of the hypothesis of ‘creative destruction’ whereby competition drives the least efficient producers from the market and leads to productivity growth as more efficient firms enter, survive and grow. In their sample, more productive firms survive and market competition is positively and significantly correlated with productivity growth.

In the last decade the importance of firm competitiveness has been increasingly recognised in the policy discussion of problems faced by African manufacturing firms. The role of current industrial policy is often seen to be to promote the effectiveness of firms in such competition. Söderbom and Teal (2003b) discuss the relationship between the new industrial policy and the policies of poverty reduction. The authors argue that policy towards manufacturing in Africa can reduce poverty if such policy focuses on the creation of high-paying jobs. The paper draws on a range of cross-country firm-level evidence to show how policy can promote jobs and higher real wages. Mauritius is a country which has achieved both these objectives. The paper places Mauritius in the context of other African countries and then asks why they have lagged so far behind. Drawing on firm-level evidence from Nigeria, Kenya, Tanzania, Ghana and South Africa, it examines the policies needed to build a linkage from manufacturing to overall economic growth in order to have a substantial impact on poverty.

Recent publications

- Söderbom, M.**, ‘Constraints and opportunities in Kenyan manufacturing: Report on the Kenyan manufacturing enterprise survey 2000’, CSAE Report REP/2001-03. Available at <http://www.economics.ox.ac.uk/CSAEadmin/reports>.
- Harding, A., M. Söderbom and F. Teal**, ‘The Tanzanian Manufacturing Enterprise Survey 2002’, CSAE Report REP/2002-04. Available at <http://www.economics.ox.ac.uk/CSAEadmin/reports>.
- Rankin, N., Söderbom, M. and F. Teal**, ‘The Ghanaian Manufacturing Enterprise Survey 2000’, CSAE Report REP/2002-05. Available at <http://www.economics.ox.ac.uk/CSAEadmin/reports>.
- Söderbom, M. and F. Teal**, ‘The performance of Nigerian manufacturing firms: Report on the Nigerian manufacturing enterprise survey 2001’, CSAE Report REP/2002-01. Available at <http://www.economics.ox.ac.uk/CSAEadmin/reports>.
- Bigsten, A., **P. Collier, S. Dercon, M. Fafchamps**, B. Gauthier, J. W. Gunning, A. Odoro, R. Oostendorp, C. Pattillo, **M. Söderbom, F. Teal** and A. Zeufack, ‘Credit constraints in manufacturing enterprises in Africa’, *Journal of African Economies*, 12(1), 104–25, 2003.
- Harding, A., M. Söderbom and F. Teal**, ‘Survival and success in African manufacturing firms’, CSAE mimeo, 2003.
- Söderbom, M. and F. Teal**, ‘Are manufacturing exports the key to economic success in Africa?’, *Journal of African Economies*, 12(1), 1–29, 2003a.
- Söderbom, M. and F. Teal**, ‘How can policy towards manufacturing in Africa reduce poverty? A review of the current evidence from cross-country firm studies’, *African Development Perspectives Yearbook*, 9, Muenster, Germany: Lit-Verlag, 2003b.
- Söderbom, M., F. Teal, A. Wambugu and G. Kahyarara**, ‘The dynamics of returns to education in Kenyan and Tanzanian manufacturing’, CSAE Working Paper Series 2003-17. Available at <http://www.csae.ox.ac.uk/workingpapers/wps-list.html>.
- Bigsten, A., **P. Collier, S. Dercon, M. Fafchamps**, B. Gauthier, J. W. Gunning, A. Odoro, R. Oostendorp, C. Pattillo, **M. Söderbom, F. Teal** and A. Zeufack, ‘Do African manufacturing firms learn from exporting?’, *Journal of Development Studies*, forthcoming 2004.
- Söderbom, M. and F. Teal**, ‘Size and efficiency in African manufacturing firms: Evidence from firm-level panel data’, *Journal of Development Economics*, forthcoming 2004.

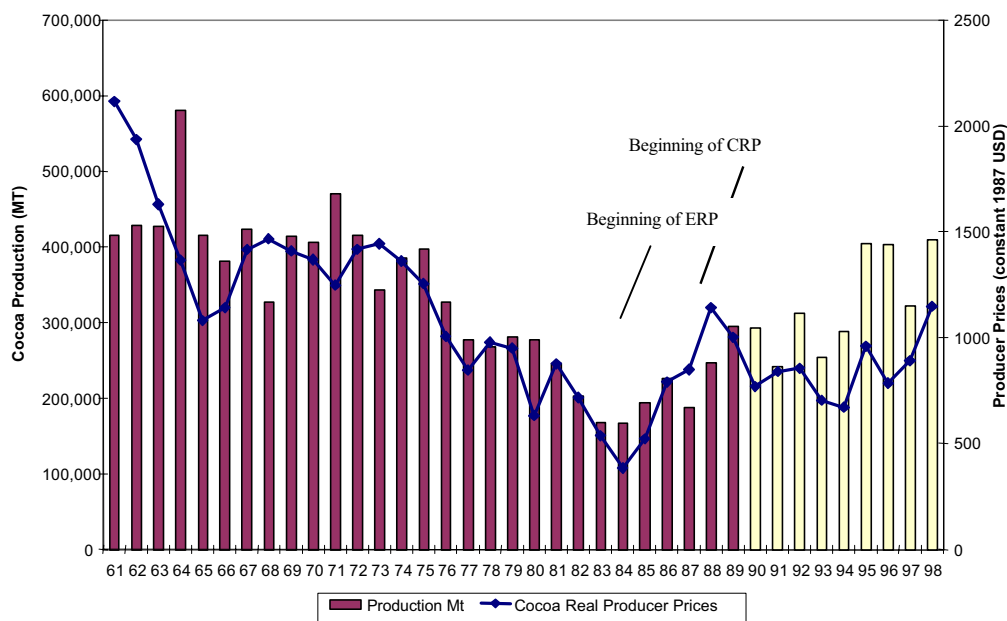
Coping with agricultural market reforms in the 1990s: Winners and losers among Ghanaian farmers

Marcella Vigneri

Introduction

This project analyses the changes affecting cocoa farmers' production in Ghana under agricultural market reforms. From the early 1970s until the mid-1980s, cocoa output fell due to the combination of an overvalued exchange rate and heavy taxation of cocoa effected by means of a monopsonistic marketing board. Since the mid-1980s markets have been liberalised. The progressive deregulation of the country's cocoa sector has been on the policy agenda since the mid-1980s, with specific measures to liberalise the marketing system having taken place since 1989.

Figure 3.1 Ghana's cocoa production (mt) and producer prices (constant 1987 USD)



Source: Faostat database and Ghana Cocoa Board.

ERP is Economic Recovery Programme. CRP is Cocoa Rehabilitation Programme.

Background

The objective of this study is to assess the effectiveness of Ghana's market liberalisation in improving production conditions and market participation of cocoa farmers from 1992 to 2002. International financial institutions have put strong pressure on the Ghanaian government to fully liberalise its agricultural markets in order to reduce the gap between world prices and producer prices for cocoa following the example of the neighbouring countries. However, the liberalisation of Ghana's agricultural export markets is being questioned on

grounds of both efficiency and equity. It is proposed to study the changes that occurred during the reform process in order to understand what prevents a more efficient impact of trade reform benefits. This issue is being investigated in two parts. The first part is an analysis of changes in Ghana's cocoa production at the household level for 1991–98 to identify the sources of and the constraints on growth. The second part analyses a small panel of cocoa farmers constructed by the authors to determine the changes that occurred in the last four years of the reforms. Specific aspects of individual farmers' productivity, such as the constraints of operating under different labour contracts and the option to choose diverse marketing arrangements and farming practices, are analysed over time and across different regions to take into account the linkages between institutional changes and new reform-led marketing opportunities.

Production changes in Ghana cocoa farming households

The first part of the project presents an original analysis of the technology of cocoa production to explain how the rise in output realised in the 1990s was effected. Using data from the country's cocoa belt drawn from two rounds of the Ghana Living Standard Survey (GLSS), the estimated production function allows identification of the factors underlying the change in output. Two major findings emerged from this part.

The first was that between 1990 and 1997 aggregate production rose by 37%. Yet the macro evidence masks the underlying composition of this growth: only 6% of this increase was imputable to actual changes in cocoa farming households' production levels, while the remaining growth was engineered by an increase in the population of cocoa farmers.

The second finding was that non-labour input and land were found to be the major sources of growth at the household level. The higher cost of labour to the farmer has increased labour productivity (i.e. output per unit of labour input), while results indicate that productivity levels (measured by yields) and production technology have not changed.

The general conclusion suggests no innovation in cocoa farmers' production technology; the area of land under cocoa increased over time through a rise in the number of farms operated by individual producers. This in turn reflects the westward movements of farmers along the cocoa belt of the country in search of virgin land not in need of more expensive rehabilitation farming practices. The increase in non-labour inputs was very substantial despite the removal of subsidies. It was found that the high cost of fertiliser did not deter use. The removal of the distortion implicit in the rationing of fertiliser has led to a large rise in labour productivity.

A new dataset to analyse changes in the cocoa sector

The findings from the first part of the project motivated the researchers to further question the reasons for the low rate of productivity growth in Ghana's cocoa sector. As a result, in 2002 a new dataset of 497 farmers was collected with a short built-in panel linking the 1998 GLSS data to the new round. Although this analysis loses the country-representative nature of previous work, the more detailed information collected on farming practices and the panel component embedded in the data allow a more accurate analysis of the changes over time.

The following questions are addressed. First, what production factors stimulate or retard cocoa farmers' adoption of more innovative technology? Are there unobserved factors – such as land quality or farmers' ability – that could bias the measurement of inputs' productivity? Secondly, are there non-input aspects in Ghana cocoa production that can shed light on the institutional bottlenecks affecting the sector's performance?

To answer these questions, a growth analytical framework is used. The study also controls for land tenancy contracts; farmers are categorised according to their property rights to land and according to the harvest produced. Introducing the effect of customary institutions such as sharecropping contracts shows the relevance of the land tenancy dimension in identifying which farmers are better placed to respond to reform incentives.

Preliminary findings

The preliminary findings, shown in Table 3.1, are as follows:

- There has been virtually no increase in the amount of cocoa produced by the farmers.
- The individual farm area under cocoa cultivation has not changed. Although the data aggregated at the farmer level shows a 57% increase in the size of cocoa land holdings, this is believed to be due to the design of the 1997 questionnaire which led to an underreporting of the number of cocoa farms operated by the respondents.
- The previous point affects the reported decrease in land productivity. Yields, measured by output per unit of land, are decreasing as a consequence of how land was measured in 1997. However, the unchanged size of individual farms and the marginal rise in cocoa production suggest that there continues to be no evidence for any rise in land productivity.
- The new data, which collected more accurate measures of labour, shows that farmers hire in 53% of the labour used on cocoa farms. This is a major finding which shows that hired labour is much more important than previously thought. There is no significant productivity differential between hired and household labour, a point that is currently being further analysed.
- The rise in non-labour inputs has continued; the use of chemicals (fertiliser and insecticide) has increased despite their higher cost on the market. The data used, however, is silent on the ongoing effect of the government's mass spraying exercise which was rationalised and implemented at the time of the 2002 data collection exercise. Further analysis of this aspect will enable the effectiveness of this policy measure to be assessed.

The sharecropping dimension

The data employed suggests that higher underlying productivity is associated with sharecropping contracts, the best known of which are *abusa* and *abunu*. The *abusa* farmers – who take only one-third of the harvest – display the highest levels of land and labour productivity among all tenancy categories (i.e. owners, *abunu* – sharecroppers who take half of the harvest, caretakers/kin). Further analysis of this dimension reveals that despite their lower use of labour per unit of land (with labour representing in the majority

of cases the only productive input they provide on owners' land holdings) the marginal productivity of both labour and non-labour inputs is higher on sharecropped farms than on owner-operated landholdings. This is consistent with the hypothesis – which is presently being researched – that the *abusa* farmers, for whom cocoa farming is the major source of income, exert greater levels of labour effort.

Table 3.1 Changes in key production indicators: 1997–2001

Year	Ashanti	B. Ahafo	Wes. Sefwi	Wes. Wassa	Total
<i>Cocoa harvested (mt)</i>					
1997	671	1,844	1,526	939	1,251
2001	771	1,481	1,779	1,007	1,300
	15%	-20%	17%	7%	4%
<i>*Total land under individual farmer's cocoa cultivation (ba)</i>					
1997	2.02	3.24	2.83	2.59	2.63
2001	2.83	4.95	6.07	3.61	4.13
	40%	53%	114%	39%	57%
<i>*Individual farm size (ba)</i>					
1997	1.79	2.43	1.79	1.65	2.02
2001	2.02	2.75	1.82	1.71	2.02
	13%	13%	2%	4%	0%
<i>No. of cocoa farms operated by individual farmers</i>					
1997	1.33	1.16	2.00	1.56	1.58
2001	1.70	1.48	2.73	2.09	2.11
	28%	28%	36%	35%	33%
<i>*Land productivity (kg of harvest per ba)</i>					
1997	154	232	265	227	227
2001	134	191	161	188	179
	-13%	-17%	-39%	-17%	-21%
<i>Total labour supply (person days)</i>					
1997	225	136	139	121	147
2001	247	312	587	198	349
	10%	129%	321%	64%	138%
<i>% of hired labour</i>					
1997	0.23	0.36	0.29	0.17	0.25
2001	0.48	0.41	0.61	0.56	0.53
	25%	5%	32%	38%	28%
<i>Amount of insecticide and fertiliser purchased</i> <i>(real 1997 expenditure deflated by inflation and cost of inputs)</i>					
1997	83,796	47,839	95,814	102,694	86,979
2001	139,056	219,115	358,600	173,328	234,328
	66%	358%	274%	69%	169%

* These figures are medians reported in place of the means to control for outliers, which would give an unrepresentative figure.

Appendix A: Policy committee, research and support teams and research associates

Policy committee

- Mr R. A. Annibale**, Vice-President, Managing Director, Citigroup, London.
- Sir T. Atkinson**, Warden, Nuffield College, University of Oxford.
- Mr D. Bevan**, Research Associate, CSAE, and Fellow of St John's College, University of Oxford.
- Mr L. Cockroft**, adviser to the Gatsby Charitable Trust on Africa Programmes; board member, Transparency International.
- Professor P. Collier**, Director, CSAE, University of Oxford.
- Mr C. Goodwin**, Chair, Global Minerals and Metals Corp.
- Sir M. Goulding**, KCMG, Warden, St Antony's College, University of Oxford.
- Professor D. Hulme**, Professor of Development Studies, Institute for Development Policy and Management, University of Manchester; Director, Chronic Poverty Research Centre, University of Manchester.
- Mr J. Kibazo**, Director of Communications and Public Affairs Division, Commonwealth Secretariat.
- Professor J. B. Knight**, Department of Economics, University of Oxford.
- Sir T. Lankester**, KCB, President, Corpus Christi College, University of Oxford.
- Dr M. Lockwood**, Head of Policy and Campaigns, ActionAid UK.
- Sir M. McWilliam**, KCMG, Chair, CSAE Policy Committee.
- Dr F. Teal**, Deputy Director, CSAE, University of Oxford.
- Mr G. Teskey**, Head, Africa Policy Department, DFID.
- Dr P. Woodhouse**, Institute for Development Policy and Management, University of Manchester.

Research team and their areas of specialisation

- Dr C. S. Adam**, University Lecturer in Development Economics and Fellow of St Cross College: macroeconomics.
- Dr J. Aron**, Research Officer: international economics, monetary economics, applied macroeconometrics on the South African economy.
- Dr A. Barr**, Research Officer: experimental economics applied to development issues.
- Mr D. L. Bevan**, University Lecturer in Economics and Fellow of St John's College: public economics and macroeconomics.
- Professor P. Collier**, Director (from April 2003), and Fellow of St Antony's College: economics of civil war, economic growth and aid.
- Dr S. Dercon**, University Lecturer in Economics and Fellow of Jesus College: microeconomics.
- Dr M. Fafchamps**, Deputy Director, Reader in the Department of Economics and Professorial Fellow at Mansfield College: microeconomics.
- Dr A. Hoeffler**, Research Officer: macroeconomics, growth and economics of conflict.
- Dr G. Kingdon**, Research Officer: applied microeconomics, education, labour, gender.

Professor J. B. Knight, Professor of Economics and Fellow of St Edmund Hall: labour and human resource economics.

Dr T. Owens, Research Officer: poverty aid and growth.

Mr N. Rankin, Research Officer: efficiency, exports and African manufacturing.

Dr M. Söderbom, UNIDO Research Fellow: African economic development, the microeconomics of firm performance and labour markets in Africa.

Dr F. Teal, Deputy Director: microeconomics.

Professor J. Toye, Director (until April 2003), visiting Professorial Fellow, St Antony's College: development economics and the political economy of development.

Ms M. Vigneri, Research Officer: agricultural market reforms and cash crop production.

Support team

Ms S. George, Publications Officer.

Ms R. Page, Administrator.

Mr R. Payne, IT Support Officer.

Research associates

Professor D. Anderson: environmental economics.

Dr M. Antoninis (Oxford Policy Management): education and labour markets.

Dr S. Appleton (Nottingham University)

Professor J.-P. Azam (University of Toulouse), Senior Associate Member of St Antony's College: francophone and lusophone Africa.

Dr S. Bhalotra (Universities of Cambridge and Bristol): applied microeconomics, health, education and gender and the family in low-income countries.

Professor A. Bigsten (University of Göteborg): rural development and Kenya.

Professor D. Fielding (Leicester University): macroeconomics.

Professor P. Guillaumont (CERDI).

Professor S. Guillaumont Jeanneney (CERDI).

Professor J. W. Gunning (Free University, Amsterdam).

Dr K. Hanson (London School of Tropical Hygiene and Medicine): health economics.

Dr J. Hoddinott (IFPRI).

Dr C. Jenkins: macroeconomics, regional integration, South Africa and Zimbabwe.

Dr G. Kambou (ADB).

Dr B. Kinsey (Free University of Amsterdam): economic anthropology.

Dr P. Krishnan (Fellow of Jesus College, Cambridge): labour economics.

Dr N. A. McCulloch (IDS).

Professor B. Ndulu (World Bank).

Professor S. O'Connell (Swarthmore College): macroeconomics.

Dr R. Oostendorp (Free University, Amsterdam).

Professor T. A. Oyejide (University of Ibadan and AERC).

Dr C. Pattillo (IMF).

Dr R. Reinikka (World Bank): macroeconomics of trade liberalisation.

Dr P. Serneels (University of Copenhagen).

Dr C. Soludo (University of Nigeria, Nsukka): Nigeria.

Dr D. Stasavage (London School of Economics): politics of macroeconomic policy, political economy of emerging markets, monetary integration, corruption and development.

Appendix B: Journal of African Economies

Before the advent of the *Journal of African Economies* in 1992, high-quality economic research on Africa was scattered over many diverse publications. In the *Journal* this important area of research now has its own vehicle to carry rigorous economic analysis, focused entirely on Africa, for Africans and anyone interested in the continent – be they consultants, policy makers, academics, traders, financiers, development agents or aid workers.

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Appendix C: Bibliography

Christopher Adam

- Adam, Christopher S.** and Stephen A. O'Connell, 'Aid, taxation and development in sub-Saharan Africa', *Economics and Politics*, 11(3), 1999.
- Adam, Christopher S.**, 'Asset portfolios and credit rationing: Evidence from Kenya', *Economica*, 66, 97–117, 1999.
- Adam, Christopher S.**, 'Financial liberalisation and currency demand in Zambia', *Journal of African Economies*, 8(3), 267–306, 1999.
- Adam, Christopher S.** and **David L. Bevan**, 'Fiscal restraint and the cash budget in Zambia', in **Paul Collier** and Catherine Pattillo (eds), *Risk and Investment in Africa*, pp. 185–216. Basingstoke: Macmillan, 1999.
- Adam, Christopher S.**, 'Liberalisation, policy reform and the demand for money in Africa', *Journal of African Economies*, 8(3), 263–7, 1999.
- Adam, Christopher S.**, 'Privatisation in sub-Saharan Africa: Some issues in regulation and the macroeconomics of transition', in Jo Ann Paulson (ed.), *African Economies in Transition. Volume 1: The Changing Role of the State*, pp. 290–325. Basingstoke and London: Macmillan, and New York: St Martin's Press, 1999.
- Adam, Christopher S.** and F. M. Musonda, 'Zambia', in T. Ademola Oyejide, Benno Ndulu and Jan Willem Gunning (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa. Volume 2: Country Case Studies*, Basingstoke and London: Macmillan, and New York: St Martin's Press, 1999.
- Adam, Christopher S.** and **David L. Bevan**, 'The cash budget as a restraint: The experience of Zambia', in **Paul Collier** and Catherine Pattillo (eds), *Investment and Risk in Africa*, Basingstoke and London: Macmillan, and New York: St Martin's Press, 2000.
- Adam, Christopher S.**, 'The transactions demand for money in Chile', *Economia Chilena*, 3(3), 33–56, 2000.
- Adam, Christopher S.**, **David L. Bevan** and Gerard Chambas, 'Exchange rate regimes and revenue performance in sub-Saharan Africa', *Journal of Development Economics*, 64, 173–213, 2001.
- Adam, Christopher S.** and Jan Willem Gunning, 'Redesigning the aid contract: Donors' use of performance indicators in Uganda', *World Development*, 30(12), 2045–56, 2002.
- Adam, Christopher S.** and **David L. Bevan**, 'Staying the course: Maintaining fiscal control in developing countries', in S. Collins and D. Rodrik (eds), *Brookings Institution Trade Forum 2003*, Washington, D.C.: Brookings Institution Press, 2003.
- Adam, Christopher S.** and Stephen A. O'Connell, 'Aid versus trade revisited: Donor and recipient policies in the presence of learning by doing', *Economic Journal*, 114(492), 150–73, 2004.
- Bevan, David L.** and **Christopher S. Adam**, 'Fiscal deficits and growth in developing countries', *Journal of Public Economics*, forthcoming 2004.

Janine Aron

- Aron, Janine**, 'The Zambian copper boom and crash: 1964–80', in **David L.**

- Bevan, Paul Collier** and Jan Willem Gunning (eds), *Consequences of Temporary Trade Shocks in Developing Countries*, pp. 259–302. Oxford: Oxford University Press, 1999.
- Aron, Janine**, ‘Growth and institutions: A review of the evidence’, *World Bank Research Observer*, 15(1), 99–135, 2000.
- Aron, Janine** and John Muellbauer, ‘Personal and corporate saving in South Africa’, *World Bank Economic Review*, 14(3), 509–44, 2000.
- Aron, Janine**, Ibrahim Elbadawi and Brian Kahn, ‘Real and monetary determinants of the real exchange rate in South Africa’, in Ibrahim Elbadawi and Trudy Hartzenberg (eds), *Development Issues in South Africa*, London: Macmillan, 2000.
- Aron, Janine** and John Muellbauer, ‘Personal and corporate saving in South Africa’, *Saving Review*, (1), 2001.
- Aron, Janine** and John Muellbauer, ‘Estimating monetary policy rules for South Africa’, in Norman Loayza and Klaus Schmidt-Hebbel (eds), *Monetary Policy: Rules and Transmission Mechanisms*, pp. 427–75. Central Bank of Chile, 2002.
- Aron, Janine** and John Muellbauer, ‘Interest rate effects on output: Evidence from a GDP forecasting model for South Africa’, *IMF Staff Papers*, 49(Special Issue 2002), 185–213, 2002.
- Aron, Janine**, ‘Building institutions in post-conflict African economies’, *Journal of International Development*, 15(4), 471–85, 2003.

Abigail Barr

- Barr, Abigail**, ‘Do small and medium-sized enterprises network for growth?’, in K. King and S. McGrath (eds), *Enterprise in Africa: Between Poverty and Growth*, London: Intermediate Technology Publications, 1999.
- Barr, Abigail**, ‘Social capital and technical information flows in the Ghanaian manufacturing sector’, *Oxford Economic Papers*, 52(3), 539–59, 2000.
- Barr, Abigail** and Abena Oduro, ‘Ethnic fractionalization in an African labour market’, *Journal of Development Economics*, 68(2), 355–79, 2002.
- Barr, Abigail**, ‘The functional diversity and spillover effects of social capital’, *Journal of African Economies*, 11(1), 90–113, 2002.
- Barr, Abigail**, ‘Trust and expected trustworthiness: Experimental evidence from Zimbabwean villages’, *The Economic Journal*, 113(489), 614–30, 2003.
- Barr, Abigail**, ‘Kinship, familiarity, and trust: An experimental investigation’, in J. Ensminger, J. Henrich, R. Boyd, S. Bowles, H. Gintis, E. Fehr and C. Camerer (eds), *Foundations of Human Sociality*, Oxford: Oxford University Press, forthcoming 2004.

David Bevan

- Bevan, David L., Paul Collier** and Jan Willem Gunning, ‘Anatomy of a temporary trade shock: The Kenyan coffee boom of 1976–9’, in **Paul Collier**, Jan Willem Gunning and associates (eds), *Trade Shocks in Developing Countries*, pp. 64–93. Oxford: Oxford University Press, 1999.
- Adam, Christopher S.** and **David L. Bevan**, ‘Fiscal restraint and the cash budget in Zambia’, in **Paul Collier** and Catherine Pattillo (eds), *Risk and Investment in Africa*, pp. 185–216. Basingstoke: Macmillan, 1999.
- Bevan, David L.** and **Paul Collier**, ‘The macroeconomics of the transition from

African socialism', in Jo Ann Paulson (ed.), *African Economies in Transition. Volume 1: The Changing Role of the State*, pp. 93–168. Basingstoke and London: Macmillan, and New York: St Martin's Press, 1999.

Bevan, David L., Paul Collier and Jan Willem Gunning, *Nigeria and Indonesia*. Oxford: Oxford University Press (for the World Bank), 1999.

Bevan, David L., 'Trade liberalization and the budget deficit', *Journal of Policy Modeling*, 21(6), 653–94, 1999.

Bevan, David L., Paul Collier and Jan Willem Gunning, 'Trade shocks in developing countries: Consequences and policy responses', in David Greenaway and W. Morgan (eds), *The Economics of Commodity Markets*, pp. 64–93. Cheltenham: Edward Elgar, 1999.

Adam, Christopher S. and **David L. Bevan**, 'The cash budget as a restraint: The experience of Zambia', in **Paul Collier** and Catherine Pattillo (eds), *Investment and Risk in Africa*, Basingstoke and London: Macmillan, and New York: St Martin's Press, 2000.

Bevan, David L., 'Fiscal implications of trade liberalization', in **David L. Bevan, Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*, Basingstoke and New York: Palgrave Macmillan, 2000.

Bevan, David L., Paul Collier, Norman Gemmill and David Greenaway, 'Introduction', in **David L. Bevan, Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*, Basingstoke and New York: Palgrave Macmillan, 2000.

Bevan, David L., Paul Collier, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*. Basingstoke and New York: Palgrave Macmillan, 2000.

Adam, Christopher S., David L. Bevan and Gerard Chambas, 'Exchange rate regimes and revenue performance in sub-Saharan Africa', *Journal of Development Economics*, 64, 173–213, 2001.

Bevan, David L., 'Fiscal dimensions of Ethiopia's transition and reconstruction', in Tony Addison (ed.), *From Conflict to Recovery in Africa*, Oxford: Oxford University Press, 2003.

Bevan, David L. and Augustin Fosu, 'Introduction to special issue on globalisation', *Journal of African Economies*, 12(1), 1–13, 2003.

Bevan, David L., 'Optimum income taxation when earnings are imperfectly correlated with productivity', in Richard Arnott, Bruce Greenwald, Ravi Kanbur and Barry Nalebuff (eds), *Economics for an Imperfect World: Essays in Honor of Joseph E. Stiglitz*, Michigan: Michigan University Press, 2003.

Adam, Christopher S. and **David L. Bevan**, 'Staying the course: Maintaining fiscal control in developing countries', in S. Collins and D. Rodrik (eds), *Brookings Institution Trade Forum 2003*, Washington, D.C.: Brookings Institution Press, 2003.

Bevan, David L. and **Christopher S. Adam**, 'Fiscal deficits and growth in developing countries', *Journal of Public Economics*, forthcoming 2004.

Paul Collier

Collier, Paul, 'Aid "dependency": A critique', *Journal of African Economies*, 8(4), 528–45, 1999.

Bevan, David L., Paul Collier and Jan Willem Gunning, 'Anatomy of a temporary trade shock: The Kenyan coffee boom of 1976–9', in **Paul Collier**,

- Jan Willem Gunning and associates (eds), *Trade Shocks in Developing Countries*, pp. 64–93. Oxford: Oxford University Press, 1999.
- Collier, Paul**, David Greenaway and Jan Willem Gunning, ‘Evaluating trade liberalization: A methodological framework’, in T. Ademola Oyejide, Ibrahim Elbadawi and **Paul Collier** (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa. Volume 1: Framework, Issues and Methodological Perspectives*, pp. 306–52. Basingstoke and London: Macmillan, and New York: St Martin’s Press, 1999.
- Collier, Paul** and Jan Willem Gunning, ‘Exchange rate management in liberalising African economies’, in Jo Ann Paulson (ed.), *African Economies in Transition. Volume 1: The Changing Role of the State*, pp. 169–92. Basingstoke and London: Macmillan, and New York: St Martin’s Press, 1999.
- Collier, Paul** and Jan Willem Gunning, ‘Explaining African economic performance’, *Journal of Economic Literature*, 37(March), 64–111, 1999.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Jean Habarurema, Anders Isaksson, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, ‘Exports of African manufactures: Macro policy and firm behaviour’, *Journal of International Trade and Economic Development*, 8(1), 53–71, 1999.
- Collier, Paul** and Jan Willem Gunning, ‘The IMF’s role in structural adjustment’, *The Economic Journal*, 109(459), 634–51, 1999.
- Collier, Paul** and Jan Willem Gunning, ‘The impact of liberalisation on private investment’, in Jo Ann Paulson (ed.), *African Economies in Transition. Volume 1: The Changing Role of the State*, pp. 193–226. Basingstoke and London: Macmillan, New York: St Martin’s Press, 1999.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Cathy Pattillo, **Måns Söderbom**, Michel Sylvain, **Francis Teal** and Albert Zeufack, ‘Investment in Africa’s manufacturing sector: A four-country panel data analysis’, *Oxford Bulletin of Economics and Statistics*, 61, 489–512, 1999.
- Collier, Paul**, ‘Learning from failure: The international financial institutions as agencies of restraint in Africa’, in Andreas Schedler, Larry Diamond and Marc Plattner (eds), *The Self-Restraining State: Power and Accountability in New Democracies*, Boulder, CO: Lynne Rienner Publishers, 1999.
- Bevan, David L.** and **Paul Collier**, ‘The macroeconomics of the transition from African socialism’, in Jo Ann Paulson (ed.), *African Economies in Transition. Volume 1: The Changing Role of the State*, pp. 93–168. Basingstoke and London: Macmillan, and New York: St Martin’s Press, 1999.
- Bevan, David L.**, **Paul Collier** and Jan Willem Gunning, *Nigeria and Indonesia*. Oxford: Oxford University Press (for the World Bank), 1999.
- Collier, Paul**, ‘On economic consequences of civil war’, *Oxford Economic Papers*, 51(1), 168–83, 1999.
- Collier, Paul** and Ashish Garg, ‘On kin groups and wages in the Ghanaian labour market’, *Oxford Bulletin of Economics and Statistics*, 61(2), 133–52, 1999.
- Collier, Paul**, Patrick Guillaumont, Sylviane Guillaumont and Jan Willem Gunning, ‘Reforming Stabex’, *The World Economy*, 22(5), 669–82, 1999.
- Ncube, Mthuli, **Paul Collier**, Jan Willem Gunning and K. Mlambo, ‘Regional integration and trade liberalization in Zimbabwe’, in Ademola Oyejide, Benno

- Ndulu and Jan Willem Gunning (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa. Volume 2: Country Case Studies*, London and Basingstoke: Macmillan, and New York: St Martin's Press, 1999.
- Collier, Paul** and Jan Willem Gunning, 'Restraint, co-operation and conditionality in African trade policy', in David Greenaway, Ademola Oyejide and Benno Ndulu (eds), *Regional Integration and Trade Liberalization in Sub-Saharan Africa. Volume 4: Synthesis and Review*, pp. 74–99. Basingstoke and London: Macmillan, and New York: St Martin's Press, 1999.
- Collier, Paul**, Jan Willem Gunning and associates, *Trade Shocks in Developing Countries*. Oxford: Oxford University Press, 1999.
- Bevan, David L., Paul Collier** and Jan Willem Gunning, 'Trade shocks in developing countries: Consequences and policy responses', in David Greenaway and W. Morgan (eds), *The Economics of Commodity Markets*, pp. 64–93. Cheltenham: Edward Elgar, 1999.
- Collier, Paul** and Jan Willem Gunning, 'Trade shocks: Theory and evidence', in **Paul Collier**, Jan Willem Gunning and associates (eds), *Trade Shocks in Developing Countries*, Oxford: Oxford University Press, 1999.
- Collier, Paul** and Jan Willem Gunning, 'Why has Africa grown slowly?', *Journal of Economic Perspectives*, 13(3), 3–22, 1999.
- Collier, Paul** and Jan Willem Gunning, 'African trade liberalisations: Alternative strategies for sustainable reform', in **David L. Bevan, Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*, pp. 36–55. Basingstoke and New York: Palgrave Macmillan, 2000.
- Collier, Paul**, 'Africa's comparative advantage', in H. Jalilian, M. Tribe and J. Weiss (eds), *Industrial Development and Policy in Africa: Issues of De-Industrialisation and Development Strategy*, Cheltenham: Edward Elgar, 2000.
- Collier, Paul**, 'Conditionality, dependence and coordination: Three current debates in aid policy', in C. L. Gilbert and D. Vines (eds), *The World Bank: Structure and Policies*, Cambridge: Cambridge University Press, 2000.
- Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Contract flexibility and dispute resolution in African manufacturing', *Journal of Development Studies*, 36(4), 1–37, 2000.
- Collier, Paul** and David Dollar, 'Does Africa need a Marshall Plan?', *Cambridge Review of International Affairs*, XIV(1), 2000.
- Collier, Paul**, 'Doing well out of war: An economic perspective', in M. Berdal and D. Malone (eds), *Greed and Grievance: Economic Agendas in Civil Wars*, Boulder, CO: Lynne Rienner, 2000.
- Collier, Paul**, 'Ethnicity, politics and economic performance', *Economics and Politics*, 12(3), 225–45, 2000.
- Collier, Paul**, 'How to reduce corruption', *The African Development Review*, 12(2), 191–205, 2000.
- Bevan, David L., Paul Collier**, Norman Gemmill and David Greenaway, 'Introduction', in **David L. Bevan, Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*, Basingstoke and New York: Palgrave Macmillan, 2000.
- Collier, Paul** and Catherine Pattillo, *Investment and Risk in Africa*. Basingstoke:

- Macmillan, 2000.
- Bigombe, B., **Paul Collier** and N. Sambanis, 'Policies for building post-conflict peace', *Journal of African Economies*, 9(3), 323–48, 2000.
- Collier, Paul** and Jan Willem Gunning, 'Portfolio responses to trade policy incredibility', in **David L. Bevan, Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*, pp. 262–72. Basingstoke and New York: Palgrave Macmillan, 2000.
- Collier, Paul** and Jan Willem Gunning, 'The potential for restraint through international trade agreements', in **Paul Collier** and Catherine Pattillo (eds), *Investment and Risk in Africa*, pp. 338–51. Basingstoke and London: Macmillan, New York: St Martin's Press, 2000.
- Appleton, Simon, Arne Bigsten, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Rates of return on physical and human capital in Africa's manufacturing sector', *Economic Development and Cultural Change*, 48(4), 801–27, 2000.
- Collier, Paul**, 'Rebellion as a quasi-criminal activity', *Journal of Conflict Resolution*, 44(5), 839–53, 2000.
- Collier, Paul**, 'Risk and investment in Africa', in **Paul Collier** and Catherine Pattillo (eds), *Investment and Risk in Africa*, Basingstoke: Macmillan, and New York: St Martin's Press, 2000.
- Bevan, David L., Paul Collier**, Norman Gemmill and David Greenaway (eds), *Trade and Fiscal Adjustment in Africa*. Basingstoke and New York: Palgrave Macmillan, 2000.
- Collier, Paul** and David Dollar, 'Aid, risk and the special concerns of small states', in D. Peretz, R. Faruqi and E. J. Kisanga (eds), *Small States in the Global Economy*, London: Commonwealth Secretariat and World Bank, 2001.
- Collier, Paul**, 'Aid, shocks and trade: What East Timor can learn from African experience', in H. Hill and J. M. Saldanha (eds), *East Timor: Development Challenges for the World's Newest Nation*, pp. 336–49. Basingstoke: Institute of South East Asian Studies/Asia Pacific Press/Palgrave, 2001.
- Collier, Paul** and David Dollar, 'Can the world cut poverty in half? How policy reform and effective aid can meet international development goals', *World Development*, 29(11), 1787–802, 2001.
- Collier, Paul**, David Dollar and Nicholas Stern, 'Cinquante ans de développement économique: Bilan et expériences', *Revue d'Economie du Développement*, 1–2, 2001.
- Collier, Paul**, 'Economic causes of civil war and their implications for policy', in Chester A. Crocker, Fen Osler Hampson and Pamela Aall (eds), *Turbulent Peace: The Challenges of Managing International Conflict*, Washington, D.C.: United States Institute of Peace Press, 2001.
- Collier, Paul**, 'Ethnic diversity: An economic analysis', *Economic Policy*, 32, 2001.
- Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Exporting and efficiency in African manufacturing', in S. Fosu, S. Nsouli and A. Varoudakis (eds), *Policies to Promote Competitiveness in Manufacturing*

- in Sub-Saharan Africa*, Paris: IMF, AERC and Development Centre of the OECD, 2001.
- Collier, Paul, Anke Hoeffler** and Catherine Pattillo, 'Flight capital as a portfolio choice', *World Bank Economic Review*, 15(1), 55–80, 2001.
- Collier, Paul** and Ritva Reinikka (eds), *Uganda's Recovery: The Role of Farms, Firms and Government*. Washington, D.C.: World Bank, 2001.
- Collier, Paul** and David Dollar, 'Aid allocation and poverty reduction', *European Economic Review*, 46(8), 1475–500, 2002.
- Collier, Paul** and **Anke Hoeffler**, 'Aid, policy and peace: Reducing the risks of civil conflict', *Defence and Peace Economics*, 13(6), 435–50, 2002.
- Collier, Paul, Stefan Dercon** and John Mackinnon, 'Density versus quality in health care provision: Using household data to make budgetary choices in Ethiopia', *World Bank Economic Review*, 16(3), 425–48, 2002.
- Collier, Paul** and **Anke Hoeffler**, 'On the incidence of civil war in Africa', *Journal of Conflict Resolution*, 46(1), 13–28, 2002.
- Collier, Paul**, 'Social capital and poverty: A microeconomic perspective', in Christiaan Grootaert and T. van Bastelaer (eds), *The Role of Social Capital in Development: An Empirical Assessment*, Cambridge: Cambridge University Press, 2002.
- Collier, Paul** and N. Sambanis, 'Understanding civil war: A new agenda', *Journal of Conflict Resolution*, 46(1), 3–12, 2002.
- Collier, Paul, Anke Hoeffler**, Lance Elliot, Harvard Hegre, Marta Reynal-Querol and Nicholas Sambanis, *Breaking the Conflict Trap: Civil War and Development Policy*. Oxford: Oxford University Press and Washington, D.C.: World Bank, 2003.
- Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Credit constraints in manufacturing enterprises in Africa', *Journal of African Economies*, 12(1), 104–24, 2003.
- Collier, Paul**, 'Développement: la malédiction pétrolière', *Sociétal*, 42, 2003.
- Collier, Paul**, 'The macroeconomic repercussions of external agricultural shocks and their implications for insurance', in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2003.
- Collier, Paul**, 'The market for civil war', *Foreign Policy*, (May-June), 2003.
- Collier, Paul** and **Anke Hoeffler**, 'Über die Ökonomischen Ursachen von Bürgerkriegen', in H. J. Albrecht and H. Entorf (eds), *Kriminalität, Ökonomie und Europäischer Sozialstaat*, pp. 241–70. Heidelberg: Physica Verlag, 2003.
- Collier, Paul** and Jan Willem Gunning, *African Economic Performance: Is Marginalisation Inevitable?* Oxford: Oxford University Press, forthcoming.
- Collier, Paul**, 'Africa's exodus: Capital flight and the brain drain as portfolio decisions', *Journal of African Economies*, forthcoming.
- Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Do African manufacturing firms learn from exporting?', *Journal of Development Studies*, forthcoming.
- Collier, Paul**, 'The economic history of Africa, 1900–90', *Encyclopedia of Africa*,

forthcoming.

Appleton, Simon, **Paul Collier** and John Mackinnon, 'Gender, poverty and economic reform in Africa', in A. Ali and E. Thorbecke (eds), *Poverty in Sub-Saharan Africa*, forthcoming.

Collier, Paul and **Anke Hoefler**, 'Aid, policy and growth in post-conflict societies', *European Economic Review*, forthcoming 2004.

Hoefler, Anke, Paul Collier and **Måns Söderbom**, 'On the duration of civil war', *Journal of Peace Research*, forthcoming 2004.

Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Risk sharing in labor markets', *World Bank Economic Review*, forthcoming 2004.

Stefan Dercon

Bigsten, Arne, **Paul Collier, Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Jean Habarurema, Anders Isaksson, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Exports of African manufactures: Macro policy and firm behaviour', *Journal of International Trade and Economic Development*, 8(1), 53–71, 1999.

Bigsten, Arne, **Paul Collier, Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Cathy Pattillo, **Måns Söderbom, Michel Sylvain, Francis Teal** and Albert Zeufack, 'Investment in Africa's manufacturing sector: A four-country panel data analysis', *Oxford Bulletin of Economics and Statistics*, 61, 489–512, 1999.

Dercon, Stefan, David Bigman, Dominique Guillaume and Michel Lambotte, 'Community targeting for poverty reduction in Burkina Faso', *World Bank Economic Review*, 14(1), 167–93, 2000.

Bigsten, Arne, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Contract flexibility and dispute resolution in African manufacturing', *Journal of Development Studies*, 36(4), 1–37, 2000.

Dercon, Stefan, 'Filets de sécurité, épargne et protection sociale informelle dans les économies sujettes à des crises', *Revue d'Economie du Développement*, 1–2, 191–206, 2000.

Ayalew, Daniel and **Stefan Dercon**, 'From the gun to the plough: The macro- and micro-level impact of demobilization in Ethiopia', in K. Kingma (ed.), *Demobilization in Sub-Saharan Africa*, pp. 132–72. Basingstoke and London: Macmillan, 2000.

Dercon, Stefan and Pramila Krishnan, 'In sickness and in health: Risk-sharing within households in rural Ethiopia', *Journal of Political Economy*, 108(4), 688–727, 2000.

Appleton, Simon, Arne Bigsten, **Paul Collier, Stefan Dercon, Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom, Francis Teal** and Albert Zeufack, 'Rates of return on physical and human capital in Africa's manufacturing sector', *Economic Development and Cultural Change*, 48(4), 801–27, 2000.

- Dercon, Stefan**, David Bigman, Dominique Guillaume and Michel Lambotte, 'The use of a geographical information system for community targeting of anti-poverty reduction programs with an application to Burkina Faso', in David Bigman and H. Foffack (eds), *Geographical Targeting for Poverty Reduction*, World Bank, 2000.
- Dercon, Stefan** and Pramila Krishnan, 'Vulnerability, seasonality and poverty in Ethiopia', in B. Baulch and J. Hoddinott (eds), *Economic Mobility and Poverty Dynamics in Developing Countries*, London: Frank Cass, 2000.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exporting and efficiency in African manufacturing', in S. Fosu, S. Nsouli and A. Varoudakis (eds), *Policies to Promote Competitiveness in Manufacturing in Sub-Saharan Africa*, Paris: IMF, AERC and Development Centre of the OECD, 2001.
- Dercon, Stefan**, 'Safety nets, savings and informal social security systems in crisis-prone economies', in Joseph E. Stiglitz (ed.), *Governance, equity, and global markets: The annual bank conference on development economics, Europe*, Oxford: Oxford University Press, 2001.
- Collier, Paul**, **Stefan Dercon** and John Mackinnon, 'Density versus quality in health care provision: Using household data to make budgetary choices in Ethiopia', *World Bank Economic Review*, 16(3), 425–48, 2002.
- Dercon, Stefan**, *The Impact of Economic Reforms on Rural Households in Ethiopia*. Washington DC: The World Bank, 2002.
- Dercon, Stefan**, 'Income risk, coping strategies and safety nets', *World Bank Research Observer*, 17(2), 141–66, 2002.
- Dercon, Stefan** and Pramila Krishnan, 'Changes in poverty in villages in rural Ethiopia: 1989–95', in A. Booth and P. Mosley (eds), *The New Poverty Strategies*, London: Palgrave Macmillan, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Credit constraints in manufacturing enterprises in Africa', *Journal of African Economies*, 12(1), 104–24, 2003.
- Ayalew, Daniel and **Stefan Dercon**, 'Demobilisation, land and household livelihoods', in Tony Addison (ed.), *Underdevelopment, Transition and Reconstruction in sub-Saharan Africa*, Oxford: WIDER and Oxford University Press, 2003.
- Dercon, Stefan** and Pramila Krishnan, 'Food aid and informal insurance', in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2003.
- Dercon, Stefan** and John Hoddinott, 'Health, shocks and poverty persistence', in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2003.
- Dercon, Stefan** (ed.), *Insurance Against Poverty*. Oxford: Oxford University Press, 2003.
- Dercon, Stefan**, 'Risk, insurance and poverty: A review', in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2003.

- Dercon, Stefan**, 'Risk, poverty and public action', in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Oxford: Oxford University Press, 2003.
- Dercon, Stefan** and Pramila Krishnan, 'Risk-sharing and public transfers', *Economic Journal*, C86-C94, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Do African manufacturing firms learn from exporting?', *Journal of Development Studies*, forthcoming.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Risk sharing in labor markets', *World Bank Economic Review*, forthcoming 2004.

Marcel Fafchamps

- Fafchamps, Marcel** and Agnes Quisumbing, 'Human capital, productivity and labour allocation in rural Pakistan', *Journal of Human Resources*, 34(2), 1999.
- Fafchamps, Marcel** and Bart Minten, 'Relationships and traders in Madagascar', *Journal of Development Studies*, 35(6), 1–35, 1999.
- Fafchamps, Marcel**, 'Risk sharing and quasi-credit', *Journal of International Trade and Economic Development*, 8(3), 257–78, 1999.
- Fafchamps, Marcel**, Alain de Janvry and Elisabeth Sadoulet, 'Social heterogeneity and wasteful lobbying', *Public Choice*, 98(1–2), 5–27, 1999.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Contract flexibility and dispute resolution in African manufacturing', *Journal of Development Studies*, 36(4), 1–37, 2000.
- Fafchamps, Marcel**, 'Ethnicity and credit in African manufacturing', *Journal of Development Economics*, 61(January), 205–35, 2000.
- Fafchamps, Marcel**, Jan Willem Gunning and Remco Oostendorp, 'Inventories and risk in African manufacturing', *The Economic Journal*, 110(466), 861–93, 2000.
- Appleton, Simon, Arne Bigsten, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Rates of return on physical and human capital in Africa's manufacturing sector', *Economic Development and Cultural Change*, 48(4), 801–27, 2000.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exporting and efficiency in African manufacturing', in S. Fosu, S. Nsouli and A. Varoudakis (eds), *Policies to Promote Competitiveness in Manufacturing in Sub-Saharan Africa*, Paris: IMF, AERC and Development Centre of the OECD, 2001.
- Fafchamps, Marcel**, 'Intrahousehold access to land and sources of inefficiency: Theory and concepts', in Alain de Janvry, Gustavo Gordillo, Elisabeth

- Sadoulet and Jean-Philippe Platteau (eds), *Access to Land, Rural Poverty, and Public Action*, Oxford: Oxford University Press, 2001.
- Fafchamps, Marcel**, 'Networks, communities, and markets in sub-Saharan Africa: Implications for firm growth and investment', *Journal of African Economies*, 10(2), 109–42, 2001.
- Fafchamps, Marcel** and Bart Minten, 'Property rights in a flea market economy', *Economic Development and Cultural Change*, 49(2), 229–68, 2001.
- Fafchamps, Marcel**, 'The role of business networks in market development in sub-Saharan Africa', in Masahiko Aoki and Yujiro Hayami (eds), *Community and Markets in Economic Development*, Oxford: Oxford University Press, 2001.
- Fafchamps, Marcel** and Bart Minten, 'Social capital and agricultural trade', *American Journal of Agricultural Economics*, 83(3), 680–85, 2001.
- Fafchamps, Marcel** and Agnes Quisumbing, 'Control and ownership of assets within rural Ethiopian households', *Journal of Development Studies*, 38(6), 47–82, 2002.
- Fafchamps, Marcel**, 'Financial market characteristics', in Jan Willem Gunning and Remco Oostendorp (eds), *Industrial Change in Africa: Zimbabwean Firms under Structural Adjustment*, New York and Basingstoke: Palgrave, 2002.
- Fafchamps, Marcel**, 'Financial market characteristics', in Jan Willem Gunning and Remco Oostendorp (eds), *Industrial Change in Africa: Zimbabwean Firms under Structural Adjustment*, New York and Basingstoke: Palgrave, 2002.
- Fafchamps, Marcel**, 'Insurance market efficiency and crop choices in Pakistan', *Journal of Development Economics*, 67(2), 419–53, 2002.
- Fafchamps, Marcel** and Remco Oostendorp, 'Investment', in Jan Willem Gunning and Remco Oostendorp (eds), *Industrial Change in Africa: Zimbabwean Firms under Structural Adjustment*, New York and Basingstoke: Palgrave, 2002.
- Fafchamps, Marcel** and Bart Minten, 'Returns of social network capital among traders', *Oxford Economic Papers*, 54, 173–206, 2002.
- Fafchamps, Marcel** and Bart Minten, 'Returns to social network capital among traders', *Oxford Economic Papers*, 54(2), 173–206, 2002.
- Fafchamps, Marcel**, 'Spontaneous market emergence', *Topics in Theoretical Economics*, 2(1), 2002.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Credit constraints in manufacturing enterprises in Africa', *Journal of African Economies*, 12(1), 104–24, 2003.
- Fafchamps, Marcel** and Christine Moser, 'Crime, isolation, and law enforcement', *Journal of African Economies*, 12(4), 2003.
- Fafchamps, Marcel**, 'Engines of growth and Africa's economic performance', in Emmanuel Nnadozie (ed.), *African Economic Development*, New York: Academic Press, 2003.
- Fafchamps, Marcel** and Susan Lund, 'Risk sharing networks in rural Philippines', *Journal of Development Economics*, 71, 261–87, 2003.
- Fafchamps, Marcel**, 'Risk sharing networks in rural Philippines', *Journal of Development Studies*, 71, 261–87, 2003.
- Fafchamps, Marcel**, *Rural Poverty, Risk, and Development*. Cheltenham: Edward Elgar, 2003.

- Fafchamps, Marcel** and Bart Minten, ‘Social capital and the firm: Evidence from agricultural trade’, in Christiaan Grootaert and Thierry van Bastelaer (eds), *The Role of Social Capital in Development: An Empirical Assessment*, Cambridge: Cambridge University Press, 2003.
- Fafchamps, Marcel** and Agnes Quisumbing, ‘Social roles, human capital, and the intrahousehold division of labor’, *Oxford Economic Papers*, 55(1), 36–80, 2003.
- Fafchamps, Marcel** and Agnes Quisumbing, ‘Social roles, human capital, and the intrahousehold division of labor: Evidence from Pakistan’, *Oxford Economic Papers*, 55(1), 36–80, 2003.
- Fafchamps, Marcel** and Forhad Shilpi, ‘The spatial division of labor in Nepal’, *Journal of Development Studies*, 39(6), 23–66, 2003.
- Fafchamps, Marcel**, ‘Inequality and risk’, in **Stefan Dercon** (ed.), *Insurance Against Poverty*, Helsinki: WIDER, 2004.
- Fafchamps, Marcel**, *Market Institutions in Sub-Saharan Africa: Theory and Evidence*. Cambridge, MA: MIT Press, 2004.
- Fafchamps, Marcel**, ‘Spontaneous markets and social networks’, in Gabrielle Demange, Debraj Ray and Myrna Wooders (eds), *Group Formation in Economics: Networks, Clubs and Coalitions*, Cambridge: Cambridge University Press, 2004.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, ‘Do African manufacturing firms learn from exporting?’, *Journal of Development Studies*, forthcoming.
- Fafchamps, Marcel**, ‘Social capital and development’, *Journal of Development Studies*, forthcoming.
- Durlauf, Steve and **Marcel Fafchamps**, ‘Empirical studies of social capital: A critical survey’, in Steve Durlauf and Michael Brock (eds), *Handbook of Economic Growth*, forthcoming 2004.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, ‘Risk sharing in labor markets’, *World Bank Economic Review*, forthcoming 2004.

Anke Hoeffler

- Collier, Paul**, **Anke Hoeffler** and Catherine Pattillo, ‘Flight capital as a portfolio choice’, *World Bank Economic Review*, 15(1), 55–80, 2001.
- Hoeffler, Anke**, ‘Openness, investment and growth’, *Journal of African Economies*, 10(4), 470–97, 2001.
- Collier, Paul** and **Anke Hoeffler**, ‘Aid, policy and peace: Reducing the risks of civil conflict’, *Defence and Peace Economics*, 13(6), 435–50, 2002.
- Hoeffler, Anke**, ‘The augmented solow model and the African growth debate’, *Oxford Bulletin of Economics and Statistics*, 64(2), 135–58, 2002.
- Collier, Paul** and **Anke Hoeffler**, ‘On the incidence of civil war in Africa’, *Journal of Conflict Resolution*, 46(1), 13–28, 2002.
- Azam, Jean-Paul and **Anke Hoeffler**, ‘Violence against civilians in civil wars: Looting or terror?’, *Journal of Peace Research*, 39, 461–85, 2002.
- Collier, Paul**, **Anke Hoeffler**, Lance Elliot, Harvard Hegre, Marta Reynal-

Querol and Nicholas Sambanis, *Breaking the Conflict Trap: Civil War and Development Policy*. Oxford: Oxford University Press and Washington, D.C.: World Bank, 2003.

Collier, Paul and **Anke Hoeffler**, 'Über die Ökonomischen Ursachen von Bürgerkriegen', in H. J. Albrecht and H. Entorf (eds), *Kriminalität, Ökonomie und Europäischer Sozialstaat*, pp. 241–70. Heidelberg: Physica Verlag, 2003.

Collier, Paul and **Anke Hoeffler**, 'Aid, policy and growth in post-conflict societies', *European Economic Review*, forthcoming 2004.

Hoeffler, Anke, Paul Collier and **Måns Söderbom**, 'On the duration of civil war', *Journal of Peace Research*, forthcoming 2004.

Carolyn Jenkins

Jenkins, Carolyn, 'Money demand and stabilisation in Zimbabwe', *Journal of African Economies*, 8(3), 390–424, 1999.

Jenkins, Carolyn, 'What drives growth in Southern Africa?', *CRESFA Quarterly Review*, (1), 1999.

Jenkins, Carolyn, 'Growth, capital accumulation and economic reform in South Africa', in R. Auty (ed.), *Resource Abundance and Economic Development*, Oxford: Oxford University Press, 2001.

Jenkins, Carolyn, Jonathan Leape and Lynne Thomas (eds), *Gaining From Trade in Southern Africa: Complementary Policies to Underpin the SADC Free Trade Area*. London: Macmillan, 2000.

Jenkins, Carolyn and Lynne Thomas, 'African regionalism and the SADC', in M. Telo (ed.), *The European Union and New Regionalism*, Basingstoke: Ashgate, 2001.

Jenkins, Carolyn and Lynne Thomas, 'The macroeconomic policy framework', in **Carolyn Jenkins**, Jonathan Leape and Lynne Thomas (eds), *Gaining from Trade in Southern Africa: Complementary Policies to Underpin the SADC Free Trade Area*, London: Macmillan, 2000.

Jenkins, Carolyn, 'Compensatory mechanisms', in **Carolyn Jenkins**, Jonathan Leape and Lynne Thomas (eds), *Gaining from Trade in Southern Africa: Complementary Policies to Underpin the SADC Free Trade Area*, London: Macmillan, 2000.

Jenkins, Carolyn and **John B. Knight**, *The Economic Decline of Zimbabwe: Neither Growth nor Equity*. New York and Basingstoke: Palgrave, 2002.

Jenkins, Carolyn and Lynne Thomas, 'Creating a framework for sustainable development in Southern Africa: The Southern African Development Community', in Deryke Belshaw and Ian Livingstone (eds), *Renewing Development in Sub-Saharan Africa: Policy, Performance and Prospects*, Routledge, 2002.

Jenkins, Carolyn and Lynne Thomas, *The Changing Nature of Inequality in South Africa*. Oxford: Oxford University Press, 2004.

Jenkins, Carolyn, 'Catch-up and Convergence: Regional integration in Southern Africa', *Cooperation South*, 2003.

Geeta Kingdon

Kingdon, Geeta G., 'Gender gap in India's schools: Is the labour market a factor?', *Development Research Insights*, (29), 1999.

Kingdon, Geeta G. and Mohd Muzammil, 'Political influence of teachers in Uttar Pradesh', New Delhi: Oxford University Press, 1999.

- Kingdon, Geeta G.** and Jeemol Unni, 'Education and women's labour market outcomes in India', *Education Economics*, 9(2), 173–95, 2001.
- Kingdon, Geeta G.** and Mohd Muzammil, 'A political economy of education in India', *Economic and Political Weekly*, 36(32), 2001.
- Kingdon, Geeta G.** and Jean Dreze, 'School participation in rural India', *Review of Development Economics*, 5(1), 1–33, 2001.
- Kingdon, Geeta G.**, 'The gender gap in educational attainment in India: How much can be explained?', *Journal of Development Studies*, 39(2), 25–53, 2002.
- Kingdon, Geeta G.** and **John B. Knight**, 'What have we learnt about unemployment from microdatasets in South Africa?', *Social Dynamics*, 27(1), 2002.
- Kingdon, Geeta G.** and M. Muzammil, *The Political Economy of Education in India: Teacher Politics in Uttar Pradesh*. New Delhi and Oxford: Oxford University Press, 2003.
- Kingdon, Geeta G.** and **John B. Knight**, 'Race and the incidence of unemployment in South Africa', *Review of Development Economics*, 8(3), 2004.
- Kingdon, Geeta G.** and **John B. Knight**, 'Unemployment in South Africa: The nature of the beast', *World Development*, 32(3), 2004.
- Kingdon, Geeta G.**, Robert Cassen, K. McNay and Leela Visaria, 'Education and literacy', in Tim Dyson, Robert Cassen and Leela Visaria (eds), *21st Century India: Population, Environment and Human Development*, Oxford: Oxford University Press, forthcoming 2004.

John Knight

- Knight, John B.**, Lina Song and Jia Huaibin, 'Chinese rural migrants in urban enterprises: Three perspectives', *Journal of Development Studies*, Vol. 35 (3), pp. 73-104, 1999.
- Hill, Catharine and **John B. Knight**, 'The diamond boom, expectations and economic management in Botswana', in Paul Collier, Jan Willem Gunning and associates (eds), *Trade Shocks in Developing Countries*, Oxford: Oxford University Press, 1999.
- Knight, John B.** and Lina Song, 'Employment constraints and sub-optimality in Chinese enterprises', *Oxford Economic Papers*, Vol. 51 (2), pp. 284-99, 1999.
- Knight, John B.** and Li Shi, 'Fiscal decentralisation: Incentives, redistribution and reform in China', *Oxford Development Studies*, Vol. 27 (1), pp. 5-32, 1999.
- Knight, John B.** and Lina Song, *The Rural-Urban Divide. Economic Disparities and Interactions in China*, Oxford: Oxford University Press, 1999.
- Knight, John B.**, Li Shi and Zhao Renwei, 'A spatial analysis of wages and incomes in urban China: Divergent means, convergent inequality', in Carl Riskin, Zhao Renwei and Li Shi (eds), *China's Retreat from Equality. Income Distribution and Economic Transition*, Armonk, New York: M.E. Sharpe, pp. 133-166, 2001.
- Knight, John B.** and Lina Song, 'Economic growth, economic reform and rising inequality in China', in Carl Riskin, Zhao Renwei and Li Shi (eds), *China's Retreat from Equality. Income Distribution and Economic Transition*, Armonk, New York: M.E. Sharpe, pp. 84-124, 2001.
- Knight, John B.** and Lina Song, 'Towards a labour market in China', in Ross Garnout and Yiping Huang (eds), *Growth Without Miracles. Readings on the Chinese Economy in the Era of Reform*, Oxford: Oxford University Press, pp. 308-330

2001.

Jenkins, Carolyn and **Knight, John B.**, *The Economic Decline of Zimbabwe: Neither Growth Nor Equity*, New York and Basingstoke: Palgrave, 2002.

Knight, John B., 'Labor market policies and outcomes', in Clever Mumbengegwi (ed), *Macroeconomic and Structural Adjustment Policies in Zimbabwe*, Basingstoke: Palgrave, pp. 91-112, 2002.

Simon Appleton, **John B. Knight**, Lina Song and Qingjie Xia, 'Labor retrenchment in China: Determinants and consequences', *China Economic Review*, Vol. 13 (2-3), pp. 252-75, 2002.

Kingdon, Geeta G. and **John B. Knight**, 'What have we learnt about unemployment from microdatasets in South Africa?' *Social Dynamics*, Vol. 27 (1), 2002.

Knight, John B. and Lina Song, 'Chinese peasant choices: Migration, rural industry or farming', *Oxford Development Studies*, Vol. 31 (2), pp. 123-47, 2003.

Knight, John B., Sharada Weir and Tassew Woldehanna, 'The role of education in facilitating risk-taking and innovation in agriculture', *Journal of Development Studies*, Vol. 39 (6), pp. 1-22, 2003.

Knight, John B. and Lina Song, 'Increasing urban wage inequality in China: Extent, elements and evaluation', *Economics of Transition*, forthcoming 2004.

Kingdon, Geeta G. and **John B. Knight**, 'Race and the incidence of unemployment in South Africa', *Review of Development Economics*, forthcoming 2004.

Kingdon, Geeta G. and **John B. Knight**, 'Unemployment in South Africa: The nature of the beast', *World Development*, forthcoming 2004.

Trudy Owens

Gunning, Jan Willem, John Hoddinott, Bill Kinsey and **Trudy Owens**, 'Revisiting forever gained: Income dynamics in the resettlement areas of Zimbabwe', in Bob Baulch and John Hoddinott (eds), *Economic Mobility and Poverty Dynamics in Developing Countries*, London: Frank Cass, 2000.

Owens, Trudy, John Hoddinott and Bill Kinsey, 'The impact of agricultural extension on farm production in resettlement areas of Zimbabwe', *Economic Development and Cultural Change*, 51(2), 337-57, 2003.

Owens, Trudy, John Hoddinott and Bill Kinsey, 'Ex-ante actions and ex-post public responses to drought shocks: Evidence and simulations from Zimbabwe', *World Development*, 31(7), 1239-55, 2003.

Måns Söderbom

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Jean Habarurema, Anders Isaksson, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exports of African manufactures: Macro policy and firm behaviour', *Journal of International Trade and Economic Development*, 8(1), 53-71, 1999.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Cathy Pattillo, **Måns Söderbom**, Michel Sylvain, **Francis Teal** and Albert Zeufack, 'Investment in Africa's manufacturing sector: A four-country panel data analysis', *Oxford Bulletin of Economics and Statistics*, 61, 489-512, 1999.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard

- Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Contract flexibility and dispute resolution in African manufacturing', *Journal of Development Studies*, 36(4), 1–37, 2000.
- Appleton, Simon, Arne Bigsten, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Rates of return on physical and human capital in Africa's manufacturing sector', *Economic Development and Cultural Change*, 48(4), 801–27, 2000.
- Söderbom, Måns** and **Francis Teal**, 'Skills, investment and exports from manufacturing firms in Africa', *Journal of Development Studies*, 37(2), 13–43, 2000.
- Söderbom, Måns**, *What Drives Manufacturing Exports in Africa? Evidence from Ghana, Kenya and Zimbabwe*. Paris: World Bank and Conseil d'Analyse Economique, 2000.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exporting and efficiency in African manufacturing', in S. Fosu, S. Nsouli and A. Varoudakis (eds), *Policies to Promote Competitiveness in Manufacturing in Sub-Saharan Africa*, Paris: IMF, AERC and Development Centre of the OECD, 2001.
- Söderbom, Måns** and **Francis Teal**, 'Skills, investment and exports from manufacturing firms in Africa', in O. Morrissey and I. Filatotchev (eds), *Globalisation and Trade: Implications for Exports from Marginalised Economies*, London: Frank Cass, 2001.
- Söderbom, Måns**, 'Investment behaviour', in Arne Bigsten and Peter Kimuyu (eds), *Structure and Performance of Manufacturing in Kenya*, London and Basingstoke: Palgrave, 2002.
- Söderbom, Måns** and **Francis Teal**, 'Are manufacturing exports the key to economic success in Africa?', *Journal of African Economies*, 12(1), 1–29, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Credit constraints in manufacturing enterprises in Africa', *Journal of African Economies*, 12(1), 104–24, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Do African manufacturing firms learn from exporting?', *Journal of Development Studies*, forthcoming.
- Söderbom, Måns** and **Francis Teal**, 'How can policy towards manufacturing in Africa reduce poverty?', *Africa Development Yearbook*, forthcoming.
- Söderbom, Måns** and **Francis Teal**, 'Size and efficiency in African manufacturing firms: Evidence from firm-level panel data', *Journal of Development Economics*, forthcoming.
- Hoeffler, Anke**, **Paul Collier** and **Måns Söderbom**, 'On the duration of civil

war', *Journal of Peace Research*, forthcoming 2004.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Risk sharing in labor markets', *World Bank Economic Review*, forthcoming 2004.

Francis Teal

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Jean Habarurema, Anders Isaksson, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exports of African manufactures: Macro policy and firm behaviour', *Journal of International Trade and Economic Development*, 8(1), 53–71, 1999.

Teal, Francis, 'The Ghanaian manufacturing sector 1991–1995: Firm growth, productivity and convergence', *Journal of Development Studies*, 36, 109–27, 1999.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Cathy Pattillo, **Måns Söderbom**, Michel Sylvain, **Francis Teal** and Albert Zeufack, 'Investment in Africa's manufacturing sector: A four-country panel data analysis', *Oxford Bulletin of Economics and Statistics*, 61, 489–512, 1999.

Teal, Francis, 'Why can Mauritius export manufactures and Ghana not?', *The World Economy*, 22(7), 1999.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Contract flexibility and dispute resolution in African manufacturing', *Journal of Development Studies*, 36(4), 1–37, 2000.

Appleton, Simon, Arne Bigsten, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Rates of return on physical and human capital in Africa's manufacturing sector', *Economic Development and Cultural Change*, 48(4), 801–27, 2000.

Teal, Francis, 'Real wages and the demand for skilled and unskilled male labour in Ghana's manufacturing sector: 1991–1995', *Journal of Development Economics*, 61, 447–61, 2000.

Söderbom, Måns and **Francis Teal**, 'Skills, investment and exports from manufacturing firms in Africa', *Journal of Development Studies*, 37(2), 13–43, 2000.

Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Cathy Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Exporting and efficiency in African manufacturing', in S. Fosu, S. Nsouli and A. Varoudakis (eds), *Policies to Promote Competitiveness in Manufacturing in Sub-Saharan Africa*, Paris: IMF, AERC and Development Centre of the OECD, 2001.

Söderbom, Måns and **Francis Teal**, 'Skills, investment and exports from manufacturing firms in Africa', in O. Morrissey and I. Filatotchev (eds), *Globalisation and Trade: Implications for Exports from Marginalised Economies*,

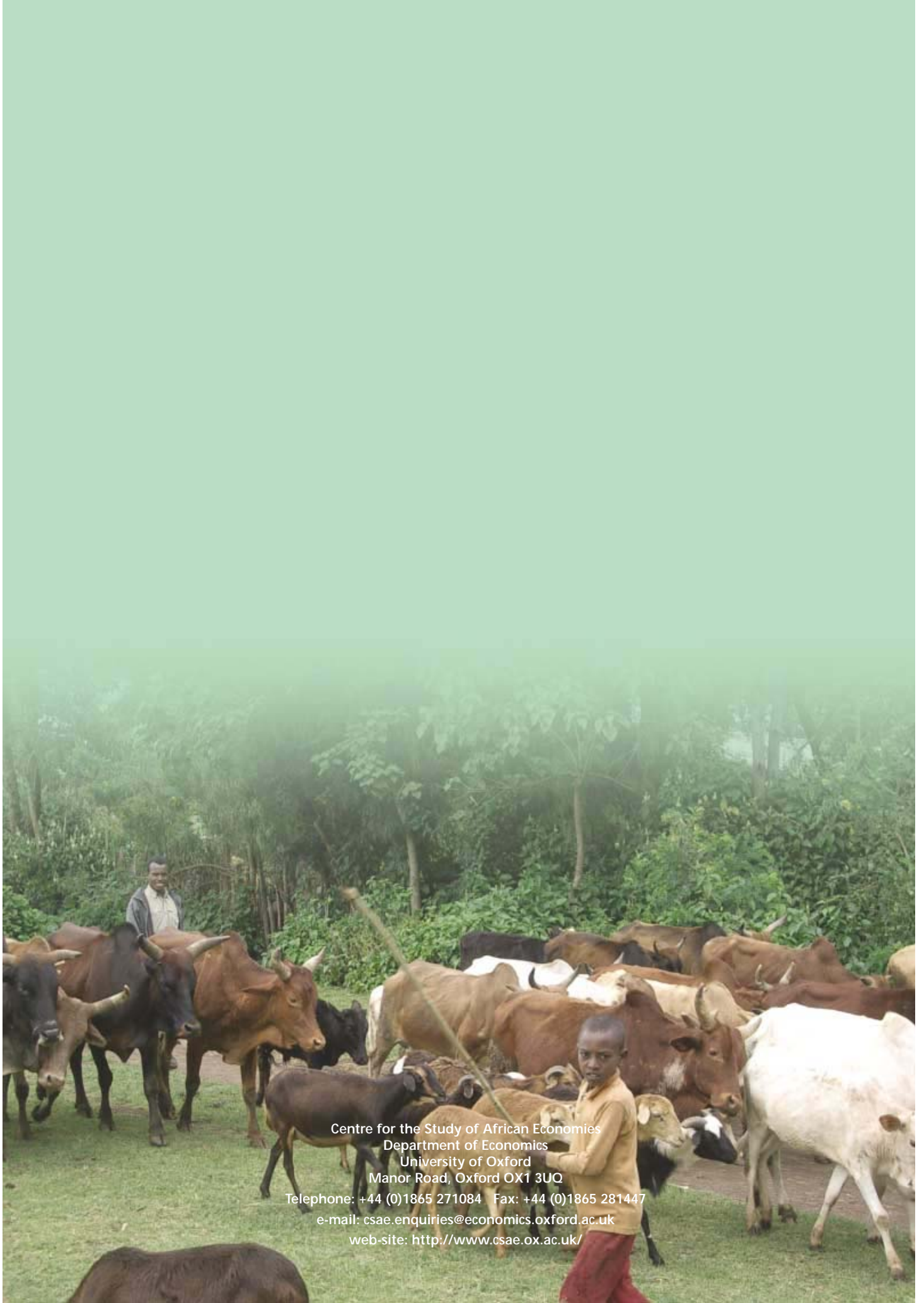
London: Frank Cass, 2001.

- Teal, Francis**, 'Export growth and trade policy in Ghana in the twentieth century', *The World Economy*, 25(9), 1319–37, 2002.
- Söderbom, Måns** and **Francis Teal**, 'Are manufacturing exports the key to economic success in Africa?', *Journal of African Economies*, 12(1), 1–29, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Credit constraints in manufacturing enterprises in Africa', *Journal of African Economies*, 12(1), 104–24, 2003.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Do African manufacturing firms learn from exporting?', *Journal of Development Studies*, forthcoming.
- Söderbom, Måns** and **Francis Teal**, 'How can policy towards manufacturing in Africa reduce poverty?', *Africa Development Yearbook*, forthcoming.
- Söderbom, Måns** and **Francis Teal**, 'Size and efficiency in African manufacturing firms: Evidence from firm-level panel data', *Journal of Development Economics*, forthcoming.
- Bigsten, Arne, **Paul Collier**, **Stefan Dercon**, **Marcel Fafchamps**, Bernard Gauthier, Jan Willem Gunning, Anders Isaksson, Abena Oduro, Remco Oostendorp, Catherine Pattillo, **Måns Söderbom**, **Francis Teal** and Albert Zeufack, 'Risk sharing in labor markets', *World Bank Economic Review*, forthcoming 2004.

John Toye

- Toye, John**, 'Fiscal crisis and fiscal reform in developing countries', *Cambridge Journal of Economics*, 24, 21–44, 2000.
- Toye, John**, *Keynes on Population*. Oxford: Oxford University Press, 2000.
- Toye, John**, 'State legitimacy, tax reform and the provision of basic services', in E. Wayne Nafziger and Raimo Vayrynen (eds), *The Prevention of Humanitarian Emergencies*, pp. 87–95. Basingstoke: Palgrave, 2002.
- Toye, John**, 'Changing perspectives in development economics', in H.-J. Chang (ed.), *Rethinking Development Economics*, pp. 21–40. London: Anthem Press, 2003.
- Toye, John**, 'The International Monetary Fund and the World Bank', in J. Michie (ed.), *The Handbook of Globalisation*, pp. 358–69. Cheltenham: Edward Elgar, 2003.
- Toye, John**, 'Introduction', in **John Toye** (ed.), *Trade and Development: Directions for the 21st Century*, pp. 1–15. Cheltenham: Edward Elgar, 2003.
- Toye, John**, 'Order and justice in the international trade system', in Rosemary Foot, John Gaddis and Andrew Hurrell (eds), *Order and Justice in International Relations*, pp. 103–24. Oxford: Oxford University Press, 2003.
- Toye, John** and Richard Toye, 'The origins and interpretation of the Prebisch-Singer Thesis', *History of Political Economy*, 35(3), 437–67, 2003.
- Toye, John** (ed.), *Trade and Development: Directions for the 21st Century*. Cheltenham: Edward Elgar, 2003.





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