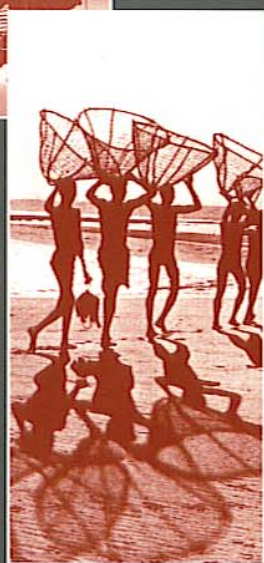
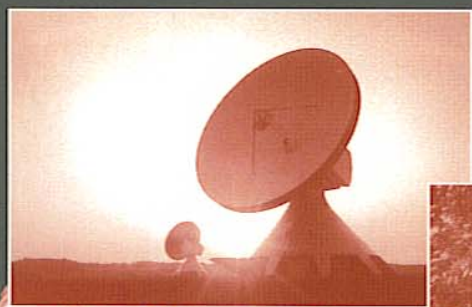


**Centre
for the
Study of
African
Economies**



**Research
Summary
1995**

Research Summary 1995

**Centre for the Study of
African Economies**

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Section 1: About CSAE

An international research resource on African economies

What is CSAE?

The Centre for the Study of African Economies (CSAE) will celebrate its tenth anniversary in early 1996. CSAE was founded by a handful of economists interested in Africa. In 1991 it became a Designated Research Centre of the Economic and Social Research Council. From its base at Oxford University's Institute of Economics and Statistics, CSAE has grown to become what is probably the largest network researching African economies outside the continent itself.

Encouraging research on Africa

CSAE's purpose is to create an open, international resource to encourage the widespread study of African economies. The acute economic deterioration of Africa, both relative to other continents and in absolute terms, has come to be recognised as one of the world's foremost economic problems. Yet social science research within Africa has been hampered by the very conditions which it needs to address. At the same time, Africa's problems have received only peripheral treatment in academic circles in the West. In short, some of the world's most intractable economic problems have been left largely unanalysed by mainstream social science.

To achieve its purpose of encouraging widespread, high quality and influential research into some of the most pressing problems facing Africa, CSAE concentrates on a number of fundamental tasks:

- ! establishing standards of academic research on Africa on a par with leading modern social science;
- ! acting as a catalyst to encourage a wider community of scholars to research African issues;
- ! assisting, both directly and indirectly, research within Africa;
- ! focusing on key economic problems in Africa and generating insights that can be applied;
- ! communicating with the major decision-makers engaged in improving the continent's prospects, both to develop and to disseminate research insights.

An international network

With a growing base of research, CSAE is now able to concentrate on its outwardly focused tasks. As a resource serving the international community, CSAE encourages interaction with its user groups. These users include academics, in and outside Africa; African policy makers; the donor community; business; voluntary organisations and the media.

With Africa and views about Africa in a remarkable state of flux these user networks are important. Informed views are essential on the market-led reforms that have taken place in many countries. As the outcomes of lengthy transition periods are highly uncertain in economic and political terms, analysis is at a premium. Research has a significant role to play in charting the progress of reform and, in many cases, guiding the appropriate path that should be taken. Both the quality of such research and its practical impact can only be enhanced through feedback and interchange between CSAE and its users. The network is in a strong position to develop new thinking about many of the issues facing Africa.

Using the network

The purpose of this Research Summary is to inform CSAE's users and potential users and also to encourage participation. Visitors are always welcome either to discuss specific issues informally, to participate in the many activities of CSAE or to spend a longer period engaged in research. CSAE is less than an hour from London Heathrow, conveniently placed for travellers en route through the airport to break their journey. Equally, CSAE staff regularly visit Africa, Europe and North America and can be available for meetings and discussions. CSAE staff are also often available in other parts of the UK. Discussion meetings in London for the business community and international visitors are becoming a frequent feature of CSAE's activities.

Using this research summary

This year's Research Summary has been redesigned to cater for all CSAE's user groups. The objective is to give a user-friendly guide to CSAE. Section 1 of this Research Summary describes CSAE and its activities. Section 2 gives a detailed summary of CSAE's research projects. The Appendices are essentially a directory, listing CSAE members and how to contact them, and a bibliography and also details of CSAE publications.

It is intended that users can easily identify the areas and activities that interest them and whom they should contact to follow up their interests in more detail. We would welcome comments on the new format and suggestions as to how it may be improved.

Range of activities

! The research base

The focus of CSAE's activities is to create an international resource for the study of African economies. The primary activity, from which all the others follow, is research. CSAE comes from the mainstream tradition of economics which emphasises on quantitative research methods. This base is considered essential to enable CSAE to speak authoritatively on issues facing Africa.

! Associated activities

In applied social science, especially in an African context, research merely provides the foundations for influencing general thinking and policy. The remaining activities of CSAE are designed to maximize the impact of the research:

- ! through publishing. The *Journal of African Economies (JAE)*, which began in 1992, provides an international forum for researchers. CSAE's in-house publishing facility includes the *JAE* and a Working Paper Series;
- ! by encouraging an international network of researchers in Africa, Europe and North America. One of CSAE's explicit aims is that a high proportion of research is collaborative;
- ! by widening the academic base of research through training and teaching programmes in Africa. CSAE regularly sets up joint ventures with African institutions;
- ! through a continuous programme of seminars in Oxford and regular conferences and workshops in the UK, Africa and elsewhere. Outside participation is always welcomed;
- ! by working side by side with governments and international agencies;
- ! by disseminating research results as widely as possible to user groups.

These activities are discussed in greater detail below.

A growing team of researchers

CSAE now has a diverse international team of over 50 members, including a high proportion of specialist researchers. The research group is now probably the largest group working on the economics of Africa outside the continent itself. CSAE's researchers are listed in Appendix A, along with phone, fax and e-mail contact numbers.

The researchers are still mainly economists, but CSAE is becoming more multi-disciplinary as it continues to expand. The recruitment of specialists in sociology, politics, management subjects and anthropology is underway or planned. CSAE is also entering alliances with other institutions such as business schools and departments of government and political science (see the section on international networks below).

An overview of CSAE's programme of research is given in the third part of this section. Individual projects are summarised in Section 2, which includes details of newly published research and project team managers. A complete listing of publications appears in Appendix C.

An expanding doctoral programme

The core of research has enabled CSAE to build up a substantial doctoral programme. There are now 15 doctoral students from around the world researching a range of topics. These vary from a macroeconomic analysis of Mozambique to using data on Ghanaian enterprises to test human capital theory.

CSAE has invested heavily in graduate training. The facilities offered to each student include an on-line 486 workstation, linked to both the Internet and the university mainframe. A Resource Centre, weekly study groups and other activities have helped build up a supportive graduate community — a feature often lacking in doctoral programmes.

A range of publications

Publications disseminate research in the wider community and stimulate debate on African policy issues. CSAE is involved in publishing over a broad spectrum. The *Journal of African Economies (JAE)* was launched jointly with Oxford University Press. Previously there had been no refereed journal specialising in the economics of Africa that provided a forum for the academic community. Details of the editors of the *JAE* are given in Appendix B. CSAE will now launch a series of monographs on African economies in 1996 in partnership with the publishers Macmillan.

These academic publications are supported by CSAE's in-house series of Working Papers, which started in 1993 and now numbers 29. There is also a less formal series of 150 Discussion Papers. These two series are designed to disseminate work in progress, theoretical ideas, important empirical results and work that is valuable but not easily publishable through standard channels. Both in-house and collaborative work are included in these series.

CSAE aims to distribute all these publications as widely as possible. Together with the annual Research Summary, the *JAE* and Working Papers disseminate the work of CSAE to specialist academics, policy makers and other users in Africa and the rest of the world. The UK's Overseas

Development Administration (ODA) has given financial support for the distribution of the *JAE*, within Africa. The Research Summary has a circulation of about 800 and the more specialist Working Paper series is sent to about 150 users.

CSAE invites requests for its publications, including offprints of individual articles from the *JAE*. Some of these publications are distributed free of charge.

In 1994 CSAE began providing regular features for *Opportunity Africa*, a quarterly magazine published by the UK Department of Trade and Industry and distributed to 24,000 British exporters to Africa. For those unable to get hold of the magazine, CSAE has individual copies of featured articles on Zimbabwe, Uganda, Ghana, South Africa and Zambia. *Opportunity Africa* is proving a useful initial forum for stimulating interest in research in a wider audience. CSAE is following up the articles with a series of seminars for business.

Encouraging research, training and teaching

Africa

CSAE's most important collaboration is with the Nairobi-based African Economic Research Consortium (AERC). Professor Ndulu, the Director, is on CSAE's Council, and over a wide range of activities we work with the AERC to build an inter-national 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. The AERC meets twice a year and has an important research programme. A number of Centre staff attend the AERC's meetings, whilst the AERC sponsors visiting academics and doctoral students at CSAE. The AERC and CSAE are jointly researching trade liberalisation and regional integration. On the teaching side, the AERC is developing a common Masters programme in Economics for African Universities and CSAE is assisting with curriculum design.

CSAE also collaborates with African academics both on an individual basis and, where connections are expected to be long-lasting and involve several people, through protocol agreements. CSAE's first protocol agreement was for collaboration with the Department of Economics at the University of Addis Ababa. Two Centre staff are based permanently on a rotational basis at the Department. Financed by the European Union, they have a full teaching role and give CSAE a local presence for its extensive Ethiopian research programme. Three members of Addis Ababa University's Economics Department are currently completing Doctorates at CSAE and others are due to come.

CSAE now also has a protocol agreement for collaboration with the Economic Policy Research Centre, Makerere University, Kampala. A staff member of the EPRC is studying for a doctorate at Oxford and CSAE staff

visit the EPRC quarterly. A recently agreed project is to build a Computer Generated Equilibrium (CGE) model of the economy in association with the Free University of Amsterdam.

CSAE has also carried out joint research work with academics from Kenya, Tanzania, Nigeria, Ghana, Zambia, Zimbabwe, Mozambique, Sudan and South Africa. CSAE is keen to build up new links, both with individual academics and with African institutions.

Europe and North America

In the UK, the Development Economics Consortium was formed three years ago to foster research on African issues through collaborative projects, regular seminars and an annual conference. Among its activities was the Conference on CGE modelling in 1994. The Consortium is a joint venture with the Centre for Research on Economic Development and International Trade (CREDIT) at Nottingham University and the Development Economics Research Centre at Warwick University.

CSAE won a European Union award to set up a network of collaborative research on Africa, the so-called SPES network (Stimulation Plan for Economic Science). Joint activities are carried out with the Centre d'Etude et de Recherche sur le Developpement International (CERDI), University of Clermont-Ferrand and the Economic and Social Institute of the Free University, Amsterdam. There are plans to extend the network, and CSAE also maintains its own longstanding bilateral research links with the Netherlands, France and Sweden. Other links are planned and proposals are always welcome.

In North America, Centre staff have spent substantial periods at Harvard and Princeton and have given seminars at a range of Universities. CSAE's Director, Paul Collier, is on the US Social Science Research Council panel for Africa and is a member of the Overseas Development Council in Washington. CSAE regularly participates in the African Studies Association meetings.

Seminars and conferences

The seminars and conferences range from presentations of research findings, through exposing work to critical review by the academic community, to briefings to donor agencies, government officials and the business community.

CSAE has a twice-weekly programme of seminars in Oxford each term, which is primarily aimed at the academic community. A list of seminars in the academic year 1994/95 is given in Appendix D.

In August 1995, CSAE began a series of business seminars to complement its quarterly feature in *Opportunity Africa* with a briefing to the business community on the economic situation in Zambia. A series of joint seminars with the CIS Middle Europe Centre at London Business School

is planned. This has two aims: first, to compare the transitions in the Former Soviet Union and its satellites with those in Africa and second, to examine the contrasting approaches of the two Centres, given London Business School's emphasis on management subjects.

CSAE is planning a Conference in 1996 to celebrate its tenth anniversary. The Conference will focus on economic reform in Africa and is likely to be targeted at the academic, policy making and business communities. Details will be available at the beginning of 1996.

CSAE also welcomes requests from government, institutions and companies for briefings on specific topics.

Working with governments, international agencies and the private sector

The core funding of CSAE is from the Economic and Social Research Council and Oxford University. Being financially independent of donors and governments, CSAE can afford to be intellectually honest. This freedom from a 'hidden agenda' enables us to have an open dialogue with governments and international agencies: such a dialogue being an essential part of informing and resolving African policy dilemmas. CSAE has a close working relationship with several African governments and with donor agencies.

Whilst funding is primarily for long term research, CSAE also acts as adviser, both formally and informally, on a wide range of issues. Here, CSAE's role is that of strategic thinker, rather than short-term consultant. CSAE's broad base, both of academic research and of practical experience of Africa, puts it in a unique position. CSAE's advice to governments and international agencies takes a number of forms, including presentations and written comments and analyses. Centre staff are often invited to make visits to specific African countries.

Bearing in mind the above distinction between strategic thinking and short-term consulting, CSAE welcomes opportunities to extend the scope of its advice further into the business community.

Reaching a wider audience

All of the above activities are broadly about the dissemination of CSAE's research and analysis to existing user groups. These activities are becoming increasingly important and more broadly based. Only by extending such activities can CSAE achieve its purpose of being an open, international resource for the analysis of African economies. Users are encouraged to take full advantage of this resource and also to suggest how CSAE's service

could be improved. Despite having its main location in Oxford, CSAE is an international network of practitioners, not an ivory tower.

Overview of the research programme

CSAE's research programme has two main components: macro-economic and microeconomic.

The macroeconomic programme concentrates on issues at the national and international level such as inflation, growth, the exchange rate and government finance, and on the political economy of policy reform.

The microeconomic programme is concerned with issues affecting individual actors in the economy, such as firms and households.

The programmes are closely linked, reflecting the importance of understanding the complex interactions between individual actors and the overall economy and how changes at one level impact on another. As CSAE continues to expand, it is becoming multi-disciplinary. In addition to the well-developed rigorous economic analysis, there is increasing emphasis on management, sociological and anthropological subjects.

Macroeconomic programme

CSAE's macroeconomic programme has a subject and country focus. The aim is twofold: to research topical subjects with important implications for Africa; to develop in-depth expertise in a representative range of countries. Given size and resource constraints, CSAE has been selective, both in the countries and the research subjects that it covers.

The research programme evolves in response to current issues and themes. In the past CSAE has concentrated primarily on the implementation of economic reforms and the process of transition from non-market to market regimes. As this process continues, however, it is becoming increasingly important to examine conditions for the sustainability of reforms. Consequently, CSAE is expanding its coverage of questions of investment and growth and developing its work on the political economy of policy reform.

CSAE's macroeconomic work is currently concentrated on six countries; Ethiopia, Uganda, Ghana, Zambia, Zimbabwe and South Africa. The experiences of these countries are likely to remain particularly influential in understanding the economics of Africa. However, changes in country coverage can be expected over time, both in response to new developments within the continent and as CSAE broadens its coverage.

The current major themes of the macroeconomic programme are described in this chapter. The individual project summaries in Section 2 give greater detail.

The current major themes are as follows.

A. The economics of transition and liberalisation

Since the late 1980s there has been a dramatic transformation of the political and economic landscape of Africa. A majority of governments have

committed themselves to some sort of liberalisation programme, while a growing number have moved towards democratic political systems. CSAE's macroeconomic analysis of this transition is grouped around five main components.

(i) The transition from African socialism

The process of transition is neither straightforward nor fully predictable. As is becoming increasingly clear, many African governments have failed to establish stable economies with well-functioning markets despite apparent commitments to do so.

This project considers the macroeconomic context and consequences of transition in Africa.

(ii) Trade liberalisation

Trade liberalisation has traditionally been implemented relatively early in the process of transition. Typically governments replace quantitative restrictions on imports with tariffs and lower the rate of tariff protection. Increasingly governments are taking steps to establish regional trading blocks.

This project examines both the implementation of trade liberalisation programmes and the economic response to those programmes.

(iii) Exchange rate liberalisation

Exchange rate liberalisation has usually involved two components. The first is the unification of the official exchange rate, which is often severely over-valued, with the parallel market rate; this is usually achieved through managed foreign exchange auctions. The second is the development of interbank foreign exchange markets. Auction-based unification has met with considerable success during the 1990s. Less is known about how the new interbank markets will function.

This project examines various aspects of foreign exchange markets in a deregulated environment.

(iv) Financial liberalisation

The counterpart to exchange rate liberalisation has been the removal of controls on domestic financial markets. This has had consequences not only for the rates of return on financial and productive investments, but also for the profitability and operations of the financial sector and thereby for the distribution of domestic credit.

This project examines the consequences of policies of financial liberalisation for the functioning of financial institutions, for the supply of credit to the private sector and for investment.

(v) Fiscal reform and the fiscal consequences of liberalisation

There are two sources of fiscal consequences of liberalisation. First, there are the direct consequences of the reform of government budgets, with often large changes in expenditure and tax. Second, other liberalisation

measures have consequences for the government budget which are occasionally sufficiently large to undermine the reform programme.

This project examines both these aspects of fiscal reform.

B. War/peace transitions

Africa has experienced an unusually large number of civil wars, several of which have ended recently. The challenge, in this previously unresearched area, is to identify how recovery can be accelerated. Research shows that transitions from war to peace have a number of common features (this was an area many had considered unresearchable). The initial economic peace dividend is often modest, but there is a larger dividend in later years of peace contingent upon government policies. Research is now moving towards analysing the wider political economy of war/peace transitions.

C. The South African transition

The momentous events in South Africa in the early 1990s have heralded a transition that is crucial to southern Africa and the wider continent. The political goal is to move South Africa from a protected, minority controlled economy to a successful open economy with opportunities for all.

Some important research questions include how labour markets should be reformed and how extensive trade liberalisation could benefit all the southern African region.

D. The political economy of Africa

The various transitions to market economies in Africa have in several cases not delivered the desired benefits of renewed growth and investment. Whilst many governments have implemented the `mechanical` aspects of reform, little attention has been paid to the rules of the game. The emphasis has been on freeing economic markets through, for example, the removal of price controls, exchange rate unification and tariff reductions, rather than on the establishment and protection of property rights or on restraining the potential arbitrary use of government power.

Research into these institutional aspects is increasingly important. Emphasis is shifting from the establishment of markets that merely operate efficiently on a spot basis to issues of how the `rules of the game` can be adapted to support the inter-temporal transactions needed for a truly dynamic economy.

E. The response to external shocks

African countries have regularly been subject to externally caused economic shocks. Major and rapid shifts in world commodity prices (for example, coffee or copper) are a frequent cause of such shocks. As many African

economies are highly dependent on the export of as few as one commodity product, external shocks can cause economic dislocation, and require considerable adjustment. A substantial amount of research has now been carried out into the nature of these shocks and how to deal with them.

F. Growth and investment

Renewing growth and investment is the major new area of research: there is a danger that without them reform programmes may collapse. In part of this subject area there is considerable overlap with the political economy question of how to improve the `rules of the game`. However, the main focus will be on the constraints upon investment, including foreign investment. Africa has, so far, largely missed out on the explosion in foreign direct investment of recent years. In terms of portfolio investment, Africa could be the next, and last, major emerging market. The generic issues are to ascertain why Africa is perceived as being less attractive than other regions and to suggest how this can be changed. Specific issues include the importance of commodity dependence, the role of uncertainty (both market uncertainty and uncertainty over policy), the implications of debt overhang, the effect of the `inherited` capital stock and the consequences of several decades of African socialism.

G. Country-focused studies

Research into the subject areas above is reinforced by expertise developed in specific countries. In addition to South Africa, CSAE is carrying out extensive macroeconomic research in four countries: Zambia, Uganda, Ethiopia and Zimbabwe. In each case the research programme reflects the development of long-term relationships between CSAE research staff and institutions in the countries concerned, including governments, donors and the academic community. The research programmes cover a range of key subject areas as well as other themes. A number of other countries are the subject of specific research and details are given in Section 2 below. CSAE is also engaged in individual pieces of macroeconomic research outside the main subject areas and these are detailed in Section 2.

Microeconomic programme

H. The country surveys

Microeconomic research in Africa is bedevilled by a lack of information as to how the various economic agents (i.e., individuals and households, both rural and urban, small and larger manufacturing companies, service companies, etc) actually behave. How do they react to, say, changes in prices, either as consumers or as producers? How does trade liberalisation affect the activities of domestic firms? What is impact of reform on income levels, saving and wealth? How do farmers respond to changing incentives?

CSAE is in a unique position because it has built up an extensive and rich bank of data on the behaviour of households and firms through surveys, in particular, panel data surveys. These surveys involve repeated interviews of the same sample at intervals over a period of several years. Such surveys are especially useful for tracking the effects of major changes in the economic environment as are currently being experienced in many African economies.

CSAE has conducted panel household surveys in rural areas of Ethiopia, Uganda and Zimbabwe. Panel enterprise surveys of firms have been carried out in Ghana and Ethiopia. Comparative cross-country surveys of firms in 10 further countries, as part of a project on regional integration and trade liberalisation jointly with the AERC, complement the in-depth research possible with panel surveys.

These surveys cover:

(i–iii) Rural dynamics

The largest data collection effort organised by CSAE is in Ethiopia, followed by those in Zimbabwe and Uganda.

The Ethiopian surveys, in particular, offer the exciting prospect of tracking the entire economic transition starting shortly after the cessation of civil war and the collapse of the Communist regime. The surveys allow changes in the behaviour of farmers and households in response to reform to be monitored. The response to newly introduced market incentives can be ascertained and the sections of society identified that respond most — for example those with a greater level of productive assets such as cows. At the same time changes in rural welfare can be assessed to ascertain both if rural households become better off as a result of market liberalisation and the processes by which their livelihoods may improve.

(iv–vi) Enterprise dynamics

Most countries in the world that have experienced rapid and sustained growth have done so through manufacturing, especially in the early stages of growth. In the so-called 'East Asian Miracle' economies such growth was export led. A key issue for Africa is whether it can become an exporter of manufactures. Many doubt that its economies can develop such a competitive advantage.

The enterprise surveys have an important role to play in addressing such issues. The Ghana survey is the most comprehensive and longstanding of those being carried out by CSAE. The newer collaborative study of the effects of trade liberalisation on ten countries promises to enlarge upon some of the early results from Ghana.

In assessing links between manufacturing and growth potential, CSAE's research has provided the first evidence of the success of Ghana's liberalisation reforms. This evidence suggests that growth results from domestic manufacturing re-orientating activities away from import

competing sectors to other sectors. Other work by CSAE in Ghana suggests that firms' social networks of business contacts lead to increasing returns, because of information feedbacks. Academically this is important as it provides a microeconomic test of endogenous growth theory. But the practical implications for manufacturing in Africa may be equally important. These may be that specialisation in related industries, where inter-firm informational flows are maximised, is preferable to a broader manufacturing base.

A crucial issue in building up a manufacturing base is confidence. CSAE's research has confirmed that profitable firms are keen to invest. But the confidence in the macroeconomic climate, essential to positive investment decisions, is often lacking. This microeconomic work on investment complements CSAE's growing macroeconomic research in the same area. CSAE is looking to build on recent research in America regarding investment, uncertainty and irreversibility. Analysis of these issues is crucial to understanding Africa's poor investment record and how investment and growth rates may be improved.

CSAE is beginning to cast light on competitiveness. The surveys have documented the continuing problems of falling productivity in Ghanaian manufacturing. This limits firms' ability to switch successfully into exporting. If this tendency is widely confirmed, the outlook for export-led manufacturing growth for Africa may well be limited.

Other themes of CSAE's microeconomic research

CSAE now has sufficient information to analyse a wide variety of issues that give insights into the workings of African economies and the likely responses to economic change and reform. The major themes of the microeconomic programme are summarised below. These projects are described individually in Section 2 (under the same headings as in this chapter), where the names of project managers and a listing of recently available papers are given for users who would like more information.

I. Human resource development

An important and topical question throughout the world is the relationship between education and living standards. CSAE has found a clear association between education and living standards in Uganda, which holds for both rural and urban areas and amongst the poor and non-poor.

A key issue in Africa is the determinants of child health. To what extent is health influenced by individual or community characteristics? What are the implications for public policy? A current analysis of CSAE's data on Zimbabwe is examining this issue. Parallel work in Uganda shows the central role of education in improving health. This results from parental knowledge, particularly the mother's knowledge, of disease prevention.

J. Labour markets and returns to education

Analysis of CSAE's surveys suggest some evidence of uncompetitive labour markets, with worker earnings correlated with their employers' profits rather than based on a going market rate. This may limit potential for increased productivity.

Other evidence from Ghana, that education increases productivity (as well as earnings), may be problematic for manufacturing competitiveness, given the generally low standards of education. In academic terms, establishing this link between the benefits of education to individuals and the benefits to firms has been a major finding of research at CSAE.

K. Agriculture

Many African countries have traditionally imposed both price and direct controls on agriculture. Liberalisation is now taking place in several countries with increasing emphasis on allowing farmers market incentives so that they can make their own economic decisions. This raises important questions as to how farmers are likely to act and with what consequences.

The response of farmers to rapid changes in commodity prices is an important policy issue. Received wisdom has often suggested that the windfall receipts of price booms should be taxed. CSAE work suggests otherwise. The Ethiopian surveys have coincided with the recent world coffee boom, enabling the response of coffee farmers to be monitored, the first time in the world that such data gathering has been possible. Detailed analysis will take place over the next two years.

L. Poverty, asset accumulation and growth

An important question for researchers and policy makers is why some households prosper, others do not. In particular, it is important to understand the role of public policy. CSAE is examining the determinants of wealth accumulation, using the Zimbabwe panel data in a project over the next three years.

A priority for research is to establish changes in farmer welfare following liberalisation. Initial results point to a substantial improvement in welfare following reforms, with the greatest improvements accruing to households with productive capital assets, such as livestock. Parallel research looking at how farmers react to new market opportunities suggests that those with assets are more likely to take risks and innovate. Other work examines how farmers make decisions to innovate. Understanding their decision-making processes is important as innovation is established as a key source of growth in agriculture.

M. Gender and household issues

It has already been suggested that raising levels of female education has positive benefits, not least in improving child healthcare. In much of Africa

females receive less education than males. More surprisingly, and for a variety of reasons, females appear to perform relatively badly compared with males receiving the same amount of education.

An investigation of the role of female income in household welfare supports arguments for expanding female education, given that education levels and income tend to be correlated. It has been found that females tend to spend increases in income on food, whereas the same income in the hands of males sees a greater proportion of the household budget spent on alcohol and tobacco.

N. Environmental issues

The initial results of some new work by CSAE appear to challenge the generally held pessimistic view that the economic interests of African countries are consistent with environmental degradation. CSAE's research suggests that the incremental costs of environmental clean ups may often be small in comparison to efficiency gains from price and enterprise reform.

Section 2: CSAE's research projects

(CSAE members and research associate authors highlighted)

A summary of CSAE's macroeconomic and microeconomic research projects follows. For ease of reference, the format is the same as given in the previous chapter which overviews the research programme. For the reader who requires more complete details of the researchers and their publications, these are given in Appendices A and B.

The macroeconomic research programme

A. The economics of transition and liberalisation

The economics of the transition is an over-arching theme of CSAE's macroeconomic research. Work has been carried out on nine countries; Zambia, Uganda, Ethiopia, Nigeria, Kenya, Mozambique, Zimbabwe, Tanzania, and Namibia, all of which are undergoing reforms of differing degrees and from widely differing starting points. In general, however, many common themes characterise the transition. Countries have moved from controlled policy regimes, where prices and resource allocations were determined by administrative fiat, to more liberal market determined regimes, where goods, factor and asset prices are market determined. Similarly, steps have been taken to reduce the scope and nature of public sector activity, through decentralisation and privatisation. CSAE's research in this area has covered a variety of issues relating to the liberalisation process.

(i) The transition from African socialism

An overview of aspects of the economics of transition in Africa is provided by a forthcoming book entitled *The Role of the State in Key Markets: Africa and Socialist Economies*. The book arose from a project coordinated by the World Bank and examines three broad issues: the role of the state and the performance of markets, public enterprises and privatisation, and agricultural reform. A common theme running through the book is the role of risk, uncertainty and information in determining the way in which nascent markets function (or fail to function) in the transition from controlled to market-based economies. Five members of CSAE made contributions to the book.

Project manager: Paul Collier

Project papers available:

J. Paulson (ed.) *The Role of the State in Key Markets: Africa and Socialist Economies*, London: Macmillan, 1995.

The following chapters from the book are also available as CSAE mimeos:

C.S. Adam `Privatisation in Sub-Saharan Africa: Issues in the Regulation and the Macroeconomics of Transition`, 1994.

D.L. Bevan and **P. Collier** `The Macroeconomics of the Transition from African Socialism`, 1994.

P. Collier and **J.W. Gunning** `Exchange Rate Management in Liberalising African Economies`, 1994.

P. Collier and **J.W. Gunning** `The Impact of Liberalisation on Private Investment`, 1994.

(ii) **Trade liberalisation**

Trade liberalisation is a key component of economic transition: it provides a benchmark in terms of world market prices and quality standards to govern the restructuring of domestic output along competitive lines. CSAE is contributing substantially to a comprehensive collaborative research study, which is aimed at producing a definitive analysis of trade liberalisation in Africa (in the tradition of the classic NBER study by Krueger and Bhagwati, 1978, and the more recent World Bank study of trade liberalisation by Michaely, Papagorgio and Choksi, 1993).

Three features characterise the study. First, trade liberalisation is examined both from the perspective of individual countries and from the perspective of regions of Africa. Second, macro-economic and microeconomic analyses are integrated with survey work carried out in 10 countries (for more details see the section summarising microeconomic projects). Third, case studies develop path breaking measures for examining the important issue of whether trade liberalisation is perceived as credible and permanent. Private sector expectations regarding the likely success of policy reforms, and the impact of those expectations, are analysed.

The study is under the auspices of the AERC and with the collaboration of British, European and African academic institutions. The project has been sponsored by ODA, the European Union and the AERC. CSAE staff are involved both in the overall aspects of the study and three individual country case studies. These are South Africa, Zimbabwe and Zambia. The first two volumes of the trade liberalisation study, covering country and regional case studies, will be published early in 1996.

Project manager: Paul Collier

Newly available papers:

P. Collier `Higgledy-Piggledy Liberalisation: a Review of Liberalising Foreign Trade`, *The World Economy*, Vol 16 (4), July 1993.

P. Collier and **J.W. Gunning** `Trade Policy and Regional Integration: Implications for the Relationship between Europe and Africa`, *The World Economy*, Vol 18(3), May 1995.

T.A. Oyejide, I. Elbadawi, and **P. Collier** *Trade Liberalisation and Regional Integration in Africa* (forthcoming Macmillan, 1996).

P. Collier, D. Greenaway, and **J.W. Gunning** 'Methodology for the Study of Trade Liberalisation', CSAE Mimeo, 1994 (forthcoming in T.A Oyejide *et al.*, 1996).

C.S. Adam, F.M. Musonda and P.-A. Andersson 'Trade Liberalisation in Zambia, 1970-90: Policy Accounts and Macroeconomic Evidence', CSAE Mimeo, 1995.

M. Bleaney, A. Hirsch, M. Holden and **C. Jenkins** 'Trade Liberalisation and Regional Integration in South Africa', CSAE Mimeo, July 1995.

M. Bleaney, A. Hirsch, M. Holden and **C. Jenkins** 'South Africa's Trade Liberalisation', CSAE Mimeo, July 1995.

(iii) **Exchange rate liberalisation**

The exchange rate is the key macroeconomic price of the small open economies of Sub-Saharan Africa and has a central role in how resources are allocated. Exchange rate mis-alignment in much of Sub-Saharan Africa in the 1980s had widespread adverse consequences. Exchange rate reform has therefore been a key feature of market liberalisation programmes in the late 1980s. Since then, rapid progress has been made in unifying foreign exchange markets and in liberalising controls on capital account transactions. Considerable work has been carried out (including work by CSAE staff) on the analysis of the exchange rate liberalisation process. However, less is known about the operation of foreign exchange markets within a liberalised economic regime. CSAE staff are involved in new research in this area that focuses on the use of auctions in poorly developed markets. This microeconomic work is also listed here.

Project manager: Janine Aron

Newly available papers:

J. Aron and I. Elbadawi 'A Typology of Foreign Exchange Auction Markets in Sub-Saharan Africa', World Bank Working Paper No. 1395, Dec 1994.

J. Aron and I. Elbadawi 'Exchange Auction Markets in Sub-Saharan Africa: Dynamic Models for Auction Exchange Rates', World Bank Working Paper No. 1396, Dec 1994.

J. Aron and I. Elbadawi 'The Parallel Market Premium and Exchange Rate Unification: a Macroeconomic Analysis for Zambia' in M. Kiguel, S. Lizondo and **S. O'Connell** (eds) *Parallel Exchange Rates for Developing Countries*, London: Macmillan, and New York: St Martins, (forthcoming 1995).

J. Aron and I. Elbadawi 'A Comparative Analysis of the Micro- Management and Design of Foreign Exchange Auctions in Sub-Saharan Africa', *Journal of Comparative Economics* (forthcoming December 1995).

J. Aron and M. Ayogu 'Efficiency in Foreign Exchange Markets in Sub-Saharan Africa: Econometric Analysis and Implications for Policy' in I. Elbadawi (ed.)

Exchange Rate Issues in Developing Countries, Chicago University Press (in negotiation for 1996).

J. Aron 'Introduction and Background to the Use of Currency and Credit Auctions in Sub-Saharan Africa', CSAE mimeo, 1995.

J. Aron 'A Survey of Theoretical Models for Repeated Multi-Unit Auctions', CSAE mimeo, 1995.

J. Aron 'An Empirical Methodology for the Analysis of Repeated, Multi-Unit Auctions in the Presence of Policy Regime Shifts', CSAE mimeo, 1995.

J. Aron 'Institutional and Design Features of the Sub-Saharan African Auctions, with a Statistical Analysis of Micro-Auction Data', CSAE mimeo, 1995.

J. Aron, I. Elbadawi and M. Holden 'An Error Correction Model for the Real Exchange Rate in South Africa' in I. Elbadawi and T. Hartzenberg (eds) *Transitional and Long-Term Development Issues in South Africa*, Chicago University Press (in negotiation for 1996).

(iv) **Financial liberalisation**

Many African countries have now liberalised their financial markets. The minimal reform has been the relaxation of controls on domestic interest rates. This has usually been accompanied by the introduction of interbank markets in money, government securities, foreign exchange markets and other new financial instruments.

CSAE's work in this area has focused on risk, information and control in financial markets. Specific research includes: the impact of financial liberalisation on financing for the non-traditional exports sector; interest rate policy, taxation and risk; and the lending and asset management behaviour of the banking sector following liberalisation.

Project manager: Christopher Adam

Newly available papers:

C.S. Adam and M.Z. Ncube 'Financial Liberalisation and Trade Expansion in Zimbabwe' in World Bank Trade Expansion Programme 'Zimbabwe: Consolidating the Trade Liberalisation', Country Report No. 16, June 1995.

P. Collier 'Financial Liberalisation' in P. and S. Guillaumont (eds) *Ajustement et Développement: l'Expérience des Pays ACP*, Paris: Economica, 1994.

C. Harvey and **C. Jenkins** 'Interest Rate Policy, Taxation and Risk', *World Development*, Vol 22(12), December 1994.

W. Naudé 'Financial Liberalisation and Interest Rate Management in Sub-Saharan Africa', CSAE mimeo, 1995.

(v) **Fiscal reform and the fiscal consequences of liberalisation**

Fiscal reform lies at the heart of most adjustment programmes. However, liberalisation measures in other areas can have significant fiscal consequences, often sufficiently large to undermine the credibility of the reform programme. Work in this area is divided into two main components. The first is the analysis of the programmes of fiscal reform and

decentralisation themselves; the second is the examination of the fiscal consequences of other aspects of reform, such as trade, financial and exchange rate reform. Specific issues investigated in this research project have included:

- ! the analysis of devolution and decentralisation initiatives that often accompany liberalisation and the implications for revenues, transfer mechanisms and the delivery of government services;
- ! dynamic analysis of trade liberalisation programmes based on computable general equilibrium models, which illustrates that trade liberalisation engenders budgetary losses in the short term, but an increase in revenues in the longer term;
- ! the consequences for seigniorage and inflation tax revenue of financial and exchange rate liberalisation, which similarly identifies the short-run fiscal costs that arise as liberalisation measures allow the private sector to economise on holdings of local currency;
- ! new work examining the fiscal implications of alternative exchange rate regimes in Sub-Saharan African economies, with particular emphasis in the comparative fiscal performance of the Franc Zone and those economies that have adopted flexible exchange rates.

Project managers: Christopher Adam and David Bevan

Newly available papers:

C.S. Adam 'Fiscal Adjustment, Financial Liberalisation, and the Dynamics of Inflation: Some Evidence from Zambia', *World Development* Vol 23(5), 1995.

C.S. Adam, B. Ndulu and N. Sowa 'Liberalisation and Seigniorage Revenues in Kenya, Ghana and Tanzania', *Journal of Development Studies* (forthcoming, 1995).

D.L. Bevan 'Fiscal Implications of Trade Liberalisation', IMF Working Paper, 1995.

D.L. Bevan 'Fiscal Aspects of the Transition from War to Peace: with illustrations from Uganda and Ethiopia' in World Bank 'Some Economic Consequences of the Transition from Civil War to Peace', World Bank Policy Research Paper No. 1392, December 1994.

D.L. Bevan and A.B. Kello 'Regionalisation in Ethiopia', CSAE mimeo, April 1995.

B. The transition from war to peace in Africa

CSAE has pioneered research on the transition from war to peace. The project started in 1992, when a team carried out field work in Ethiopia. Further work was carried out the following year in Uganda. The issues covered have gradually expanded from an early concern with the economic effects of demobilisation of soldiers, through examining policies and mechanisms that enable a 'peace dividend' of post-war economic recovery to be realised, and into planned new work of analytical political economy.

Project manager: Paul Collier

Newly available papers:

J.P. Azam, D.L. Bevan, P. Collier, J.W. Gunning, S. Dercon and S. Pradhan `Some Economic Consequences of the Transition from Civil War to Peace`, World Bank Working Paper No. 1392, December 1992.

P. Collier `Demobilisation and Insecurity: a Study in the Economics of the Transition from War to Peace`, *Journal of International Development* Vol 6 (3) 1994.

P. Collier `Civil War and the Economics of the Peace Dividend`, CSAE mimeo, March 1995.

P. Collier and **J.W. Gunning** `War, Peace and Private Portfolios`, *World Development* Vol 23(2) 1995.

P. Collier and S. Pradhan `The Ugandan Transition from War to Peace` in B. Hansen and M. Twaddle (eds) *Developing Uganda*, London: James Currey (forthcoming 1996).

N.A.L. Mohammed `Defence Spending and Economic Growth in Sub-Saharan Africa: Comment on Gyimah-Brempong`, *Journal of Peace Research* Vol 30 (1) February 1993.

N.A.L. Mohammed `Determinants of Military Expenditure in Sub-Saharan Africa`, *Ethiopian Journal of Economics*, Vol 1 (3), October 1993.

C. The South African transition

The emphasis of the South African transition is different from the other transitions in Africa. The focus is more one of successfully altering the balance of a still strong economy, rather than rebuilding following war or years of state-led stagnation. The key question, of course, is how to meet the high expectations that resources and incomes will be redistributed. The answers lie partly in direct measures of labour market reform. It also lies in policies designed to release the full potential of an economy that was previously constrained by its political system and by inter-national isolation.

CSAE's research programme covers these key areas by:

- (i) studies on reforming and integrating labour markets with the support of the African Development Bank, ODA and the ANC Macroeconomic Research Group. This economy wide macroeconomic work is complementary to CSAE's specific microeconomic studies for the World Development Report 1995 (this work is summarised in the section on micro-economic projects);
- (ii) examining trade liberalisation in South Africa. This suggests that the gradualist reforms adopted appear to have achieved credibility, making it less likely that they will be reversed;

- (iii) analysing the proposed bilateral free trade agreement between South Africa and the European Union. Negotiations on such an agreement have dominated the trade liberalisation debate and CSAE staff have briefed trade policy officials on both sides. The South African government view has shifted from initial hostility to acceptance of a free trade arrangement in principle;
- (iv) analysing Zimbabwe's experience, where transition occurred under similar circumstances, to identify possible lessons for South Africa. This work is supported by ODA.

Project managers: John Knight and Carolyn Jenkins

Newly available papers:

J. Aron, I. Elbadawi and M. Holden 'An Error Correction Model for the Real Exchange Rate in South Africa' in I. Elbadawi and T. Hartzberg (eds) *Transitional and Long Term Development Issues in South Africa*, Chicago University Press (in negotiation for 1996).

C. Jenkins 'The Effects of Sanctions on South Africa' in O. Morrissey and F. Stewart (eds) *Adjusting to Conditions: Economic and Political Reform in Developing Countries*, London: Macmillan, 1995.

C. Jenkins 'Monetary and Financial Policy in South Africa: Redistribution through the Financial System?', *IDS Bulletin*, Vol 25 (1), January 1994.

C. Jenkins and C. Harvey 'The Unorthodox Response of the South African Economy to Changes in Macroeconomic Policy', in E. Bacha (ed.) *Economics in a Changing World*, London: Macmillan, 1995.

C. Jenkins and **W. Naudé** 'The Case for Reciprocity in South African-European Trade Relations', CSAE mimeo, 1995.

J.B. Knight 'Labour Markets' in African Development Bank *Economic Integration in Southern Africa*, Vol 3, 1993.

W. Naudé 'Monetary Policy and Relative Agricultural Prices in South Africa', *South African Journal of Economics*, Vol 63 (1), September 1994.

W. Naudé 'On the International Mobility of Financial Capital to and from South Africa', *South African Journal of Economic and Management Sciences*, Vol 11, 1994.

W. Naudé 'The National Financial Accounts, Growth and Development', *South African Journal of Economics*, Vol 62 (1), 1994.

W. Naudé 'South Africa's Transition: Some Unpleasant Macro-economic Arithmetic', *Cambridge Review of International Affairs*, Autumn 1994.

W. Naudé 'Aspekte van Afrika se Ekonomiese Katastrofe', *South African Journal of Economics* (forthcoming 1995).

D. The political economy of Africa

CSAE's programme on political economy has developed out of concern that institutional counterweights to government tend to be weak in Africa. The emphasis on the 'mechanical' aspects of reform in Africa has largely

ignored the issue that governments with unchallenged authority can easily reverse reforms. This can threaten the credibility of reform and reduce the chances of success. Consequently, CSAE is expanding its research on mechanisms for restraining government behaviour to include:

- (i) the development of domestic 'agencies of restraint', such as central banks;
- (ii) how the conditions laid down by aid donors to heavily aid dependent African countries can be used to influence the development of counterweights to arbitrary government;
- (iii) an examination of the consequences of policy uncertainty where the private sector perceives the threat that reforms may be reversed. The focus is particularly on investment and the repatriation of previous capital flight;
- (iv) the analysis of the economics of corruption;
- (v) the economics of aid and conditionality.

Project manager: Paul Collier

Newly available papers:

C.S. Adam, A. Bigsten, P. Collier, E. Julin and S. O'Connell 'Evaluation of Swedish Development Cooperation with Tanzania', Stockholm: SASDA, Ministry of Foreign Affairs, Report No. 5, 1994.

C.S. Adam, P.-A. Andersson, A. Bigsten, P. Collier and S. O'Connell 'Evaluation of Swedish Technical Cooperation with Zambia', Stockholm: SASDA, Ministry of Foreign Affairs, Report No. 6, 1994.

P. Collier 'The Role of Agencies of Restraint in Africa' in M. Lundahl and **B. Ndulu** (eds) *New Directions in Development Economics*, New York: Praeger (forthcoming, 1995).

P. Collier 'The Marginalisation of Africa', *International Labour Review* (forthcoming, 1995).

P. Collier and J.W. Gunning 'Trade Policy and Regional Integration: Implications for the Relationship between Europe and Africa', *The World Economy*, Vol 18 (3), May 1995.

R.H. Bates and **P. Collier** 'The Politics and Economics of Policy Reform in Zambia', *Journal of African Economies*, Vol 4 (1), May 1995.

C. Jenkins and W. Naudé 'The Case for Reciprocity in South African-European Trade Relations', CSAE mimeo, 1995.

E. The response to external shocks

The study of the consequences of external shocks, such as commodity price booms, formed the core of CSAE's early research. A comparative study of 23 countries was carried out; many individual articles have appeared and the whole study is due to be published shortly. This work is pertinent to the

world coffee boom which began in 1994. Whilst the overall subject has now been well covered, specific research continues in priority areas, such as the impact of agricultural shocks on macro-economic performance.

Project manager: Paul Collier

Newly available papers:

P. Collier and **J.W. Gunning** `Trade Shocks: Theory and Experience`, mimeo CSAE, July 1995.

P. Collier and **J.W. Gunning** `Trade and Development: Protection, Shocks and Liberalisation` in D. Greenaway and A. Winters (eds) *Surveys in International Trade*, Oxford: Blackwell, 1994.

P. Collier and **J.W. Gunning** `Trade Shocks: Consequences and Policy Responses in Developing Countries`, San Francisco, ICEG, 1994.

A. Bigsten and **P. Collier** in J. Mellor (ed.) *Agriculture on the Road to Industrialisation*, Washington, IFPRI, 1995.

F. Growth and investment

CSAE's research into growth and investment is expanding as these are key issues in the later stages of transition. CSAE's focus is eclectic, with elements of political economy, macroeconomics, microeconomics and other disciplines. The emerging programme includes:

- (i) how trade liberalisation impacts growth;
- (ii) the credibility of reform, the risks of policy reversal and the consequences for growth and investment in conditions of uncertainty;
- (iii) the prospects for international portfolio investment and foreign direct investment;
- (iv) institutional issues, such as the integrity of property rights, and the impact on growth and investment;
- (v) the consequences for growth and investment of market uncertainty, including commodity price volatility.

Project managers: Paul Collier and Richard Mash

Newly available papers:

J. Aron `The Institutional Foundations of Growth` in S. Ellis (ed.) *The State of Africa*, London: James Currey (forthcoming, 1995).

P. Collier `The Marginalisation of Africa`, *International Labour Review* (forthcoming, 1995).

J. Mackinnon `Land Sales in General Equilibrium`, CSAE mimeo, 1995.

G. Country-focused studies

In addition to South Africa, four countries are the subject of extensive research and analysis in the macroeconomic programme. These countries are Zambia, Zimbabwe, Uganda and Ethiopia. All of these countries are going through economic transition and a wide range of research is taking place in CSAE's major subject areas. In addition the specific country programmes include:

Zambia

CSAE is working with the Zambian Government on a European Union project to analyse the impact of policy reform. The project includes collaborative work with the National Commission for Development Planning on the development of a computable general equilibrium model. The model provides a framework for analysing aspects of the economic transition. These include the consequences of macroeconomic policy and liberalisation for the real economy (savings, investment, labour markets and distribution) and the consequences of economic shocks.

The project also provides short-term economic analysis of developments in Zambia. Over the past year the issues examined have included the macroeconomics of the real exchange rate and an analysis of investment and uncertainty.

Project manager: Christopher Adam

Newly available papers:

C.S. Adam and **D.L. Bevan** 'Structural Stability in Zambian National Accounts Data', CSAE mimeo, September 1994.

C.S. Adam and **D.L. Bevan** 'The Real Exchange Rate and Export Performance in Zambia: Macroeconomic Issues in Managing the Consequences of Policy Reforms', CSAE mimeo, October 1994.

C.S. Adam and **D.L. Bevan** 'Notes on the Design of Asset and Labour Markets for a Zambian Applied General Equilibrium Model', CSAE mimeo, January 1995.

C.S. Adam and **D.L. Bevan** 'Investment, Uncertainty and the Option to Wait: Implications for Government and Donor Policies in Zambia', CSAE mimeo, May 1995.

Uganda

CSAE has been working with the Government since early in the country's successful economic transition. CSAE's range of collaborative efforts in Uganda include work with the University of Makerere and the Economic Policy Research Centre. In addition to work on the transition, macroeconomic research has focused on the coffee boom and investment.

Project manager: Paul Collier

Newly available papers:

M. Henstridge 'Stabilisation and Structural Adjustment in Uganda 1987-90' in W. van der Geest (ed.) *Negotiating Structural Adjustment in Africa*, London: James Currey, 1994.

P. Collier 'Three papers on the Ugandan Economy', mimeo, CSAE, April 1995.

Ethiopia

CSAE has an ambitious integrated programme of studies on that country's dual transition from war to peace and away from socialism. Further research has included the decentralisation of government budgeting, an analysis of why inflation has remained low and work on economic shocks at both the macro-economic and microeconomic levels. CSAE's wide ranging research in Ethiopia is strengthened by its in depth teaching association with the Department of Economics at the University of Addis Ababa.

Project manager: David Bevan

Newly available papers:

W. Naudé 'On the Persistence of Shocks to Ethiopia's Terms of Trade: a Time Series Analysis', *Eastern Africa Social Sciences Review*, Vol 11(1), January 1995.

N.A.L. Mohammed 'Budgetary Trade Offs in Ethiopia 1965-93', *Ethiopian Journal of Economics*, April, 1994.

P. Collier and I. Kidane-Miriam 'Recent Macroeconomic Policy and Performance in Ethiopia', CSAE mimeo, August 1995.

Zimbabwe

CSAE has been involved in two major areas of macroeconomic research. First, it has been examining the impact of economic liberalisation on external trade in a project financed by the World Bank, ODA and UNDP. Second, ODA has provided support for a project on the economic lessons of the Zimbabwe transition for South Africa. This project examines economic management during the decade from 1980 to 1990.

Project manager: Carolyn Jenkins

Newly available papers:

C. Jenkins 'Economic Policy and Rural Welfare in Zimbabwe, 1980-90', CSAE mimeo, December 1994.

C. Jenkins 'Economic Policy and Investment in Zimbabwe, 1980-90', CSAE mimeo, June 1995.

C. Jenkins 'Economic Policy and Macroeconomic Performance in Zimbabwe, 1980-90', CSAE mimeo, September 1995.

C. Jenkins 'Public Expenditure and Macroeconomic Balance in Zimbabwe, 1980-90', CSAE mimeo, September 1995.

The microeconomic research programme

Within CSAE, the management of microeconomic research is organised around survey and data collection efforts on a country basis. Most projects can be subdivided between those focusing on households and those focusing on enterprises. For ease of reference, some notes are given on the respective country surveys as well as the managers to be contacted. Summaries of projects are then given on a thematic rather than country basis.

H. The country surveys

(i) The rural dynamics of Ethiopia

Ethiopia is one of the largest countries in Sub-Saharan Africa. The current policy changes in Ethiopia, as it moves from a highly regulated Stalinist-style centralised economy to market liberalisation, offer a unique opportunity to study the impact of reform in rural areas.

Ethiopia has presented an ideal opportunity for studying the impact of reforms over time. Data has been collected since the start of the reform process and so specific questions can be addressed. Two overall questions, for example, are, first, how do rural agents respond to changing incentives? Second, can people in rural areas become better off with reform and, if so, how might they become better off?

CSAE's research project is in collaboration with the Economics Department of Addis Ababa University. CSAE has close ties with the Department. There are usually two Centre staff based in Addis Ababa, whilst three of the Department's staff are in Oxford as research students.

The research project is financed by the Swedish Aid Agency, SAREC. The World Bank is considering further financing. Both the Bank and the European Union are planning social sector programmes of about £100 million and CSAE's research is the main data set which can inform these programmes.

Ethiopia is the largest data collection effort organised directly by CSAE. This has enabled some important features to be incorporated at the design stage. These are, first, that the sample of rural households is random, but because it covers specific villages, individual village studies can also be carried out. Second, the surveys are multi-disciplinary. Third, the surveys were designed to enable comparisons to be made of the effects of government policy changes over time.

The Ethiopian survey covers all the main agro-ecological zones of the country. It has allowed some long term comparisons as households surveyed in famine areas in 1984–85 have been re-interviewed. A six

monthly programme of interviews has now been repeated three times with the same households.

In parallel to these rural surveys, CSAE has assisted the Department of Economics of Addis Ababa University and the University of Gothenburg in an urban household survey of seven towns.

A workshop was held in Addis Ababa in July 1995 to consider preliminary survey findings, their implications for policy and priorities for new research. The government and the donor and NGO communities were all well represented.

Project managers: Stefan Dercon and Pramila Krishnan

(ii) The rural dynamics of Uganda

Uganda has become one of the fastest growing economies in Sub-Saharan Africa. This partly reflects the recovery from nearly twenty years of internal instability and economic disintegration. However, it may also be the result of a stable macroeconomic environment and sustained reform. The key objective of CSAE's research is to analyse the macro and micro linkages underlying this growth. Household data will be used to identify the distributional and welfare impacts of macroeconomic changes, and to estimate relevant behavioural relations. The ultimate product may be a computable general equilibrium model, grounded in micro-data, which can be used for macro-analysis.

The Ugandan household panel data is being provided by the Statistics Department of the Ministry of Finance and Economic Planning. The Ugandan Government and the World Bank have invited CSAE to contribute to the design of the future household survey work.

Much of CSAE's analysis of the household surveys to date has focused on poverty and human resources. CSAE provided a consultancy team to prepare the chapters on poverty in the most recent edition of the World Bank's Country Economic Memorandum. There was a workshop on CSAE's research programme in Kampala in March 1995. This was hosted by the Ugandan Government and attended by donors, academics, government officials and NGOs.

Project managers: Simon Appleton and John Mackinnon

(iii) The rural dynamics of Zimbabwe

CSAE's panel survey research work in Zimbabwe is recent, following the abandonment of planned survey work in Namibia.

CSAE is working with the University of Zimbabwe on data originating in 1982 on households in three rural resettlement areas. Panel interviews have now been repeated six times with CSAE's participation in 1994 and 1995. The ODA has provided financing for the most recent survey. These surveys have been supplemented by two surveys provided by the Central

Statistics Office in Harare which will enable CSAE to carry out comparative research.

The initial focus of CSAE's research is on the determinants of child health. New research will examine the determinants of household accumulation and the factors that enable some households to prosper, whilst others do not. A further specialist survey carried out by CSAE focuses on the role of natural resources and environmental factors in determining household livelihoods.

Project manager: John Hoddinott

(iv) Enterprise dynamics in Ghana

Ghana is an ideal location for researching the prospects for manufacturing in Africa and for assessing the likelihood of export led growth based on manufacturing. Ghana has experienced the most prolonged — and arguably the most successful — period of economic reform on the continent. Following two decades of negative growth in per capita incomes, the economy has now been transformed. Per capita incomes are now growing at 2% per annum, with exports increasing at more than 5% per annum. Inflation has been reduced and investment has increased dramatically.

The survey work in Ghana has been partly funded by the ODA and is part of the African Regional Programme on Enterprise Development, which is coordinated by the World Bank.

The Ghana survey is the most comprehensive available in terms of the spread of firms by sector, size and location. A panel of firms has been surveyed in three successive years. This has been supplemented by a parallel survey of workers and apprentices within firms. The rich information generated is enabling wide ranging research to take place into investment, growth, industrial and social networks, labour markets and human resource development, and productivity and efficiency. Given Ghana's long standing programme of liberalisation, CSAE is able to analyse the consequences and limitations of macro-economic reform.

Project manager: Francis Teal

Papers newly available:

P. Jones and F. Teal, 'The Ghanaian Manufacturing Sector in 1991 and 1992: a Final Report on Wave 2 of the RPED Survey', CSAE mimeo, August 1994.

F. Teal, 'A Report from the Regional Program on Enterprise Development (RPED) — The Ghanaian Manufacturing Sector 1991–93, Preliminary Findings of Waves 1 to 3', CSAE mimeo, April 1995.

(v) Enterprise dynamics in Ethiopia

Market liberalisation in Ethiopia is much more recent than in Ghana. It is important to understand how reforms have affected the prospects for

manufacturing and whether entrepreneurs regard the reforms as credible and sustained.

Like the Ethiopian household survey, CSAE's enterprise survey project is a joint undertaking with the Department of Economics at Addis Ababa University. The Free University of Amsterdam is also participating, with financing provided by the Netherlands Ministry of Development Co-operation.

The Enterprise Development survey in Ethiopia is at a relatively early stage with the second round of data collection scheduled for September 1995.

Project manager: Taye Mengistae

(vi) Enterprise dynamics and trade liberalisation in ten countries

This survey is currently being carried out in 10 African countries to establish the consequences of trade liberalisation for the industrial sector. The absence of such comparative information is a major reason why previous attempts to assess the results of trade liberalisation policies have remained incomplete.

A common questionnaire for sample enterprises was designed by Centre staff. It enables macro analysis to be complemented by micro information on exporting firms.

It will be possible to examine a wide variety of issues with rich survey data on production, markets, finance, labour, trade and policy credibility. Firms that export after liberalisation can be categorised. This will enable successful exporters to be identified by type, whether, for example, they be new firms, small or large firms, or existing firms that switch to exporting as a result of trade liberalisation.

(vii) Developing a multi-disciplinary approach to country surveys of rural and enterprise dynamics

Important insights may be missed if the Household and Enterprise Research Programmes were restricted to hard mainstream economic issues. A multi-disciplinary approach is essential to incorporate fully the complexity of cultural, institutional and political issues that may affect economic outcomes. This project is therefore not so much a stand alone exercise, except in its internal organisation and management in CSAE, as an important contribution to all the relevant areas of the microeconomic programme.

Contributions to date include:

- ! designing questionnaires to take account of cultural, institutional and political factors;
- ! taking account of organisational and social issues in the analysis of enterprises;

- ! developing a programme to assess land tenure and its use in relation to poverty;
- ! examining and improving the economic methodology as currently applied to Africa.

Project manager: Philippa Bevan

I. Human resource development

Enhancing education and health is increasingly seen as both an objective of and a means to development. Papers by John Knight, Simon Appleton and John Mackinnon provide overviews of current thinking on this subject together with recommendations for policy-makers.

Africans suffer from markedly higher risk of life threatening illness than people in other developing countries; mean life expectancy in the sub-continent is 52 years compared with 64 years in low and middle income countries as a whole. Most of this differential arises from child mortality. Child mortality is commonly found to be inversely correlated with maternal education, providing much of the rationale for promoting female education in Africa. Econometric analysis of Ugandan household survey data by John Mackinnon suggests that part of this correlation works through knowledge of health and disease. Work by Simon Appleton on Kenyan household survey data implies that maternal education may also improve child health by increasing take-up of health services.

If maternal education does bring social benefits, it is important to understand why girls are less likely to receive schooling in Africa. Economists have tended to focus on why the demand for female schooling may be less. Work by Simon Appleton suggests that an additional factor is girls' relatively poor school performance in many African countries. This can lead to them being denied access to state secondary schools and universities, which are typically rationed by examinations. In Côte d'Ivoire, analysis suggests that girls' poor academic performance arises largely amongst the poor and is partly attributable to them spending less time in school and more time on domestic work. In Kenya, time allocation does not appear important. However, gender differences in tests of non-verbal reasoning (not observed in the developed world) suggest a deep-seated problem, perhaps arising at the pre-school stage. There is also evidence that disabling attitudes of parents and teachers may contribute to girls' inferior performance.

Newly available papers:

S. Appleton 'The Interaction between Poverty and Gender in Human Capital Accumulation: the Case of the Primary Leaving Exam in the Côte d'Ivoire', *Journal of African Economies*, Vol 4 (2), 1995.

S. Appleton 'Gender Inequalities in Human Capital Accumulation: Evidence from two African Countries', *African Development Yearbook*, Vol 4, (forthcoming 1996).

S. Appleton 'How does Female Education affect Fertility? a Structural Model for the Côte d'Ivoire', *Oxford Bulletin of Economics and Statistics*, Vol 58 (1), (forthcoming February 1996). Also CSAE WP/95.3.

S. Appleton 'Exam Performance in Kenyan Primary Schools: Determinants and Gender Differences', McNamara Series, World Bank, Washington DC, 1995.

S. Appleton 'The Impact of Public Services on Health Care and Morbidity: Evidence from Kenya', CSAE WPS/95.2.

S. Appleton and J. Mackinnon 'Enhancing Human Capacities in Africa', in **B. Ndulu** and N. van der Walle *Agenda for Africa's Economic Renewal*, Washington DC: Overseas Development Council, (forthcoming 1996).

J.B. Knight 'Editorial Introduction' to the Special Issue on Human Capital Accumulation and Economic Development, *Oxford Bulletin of Economics and Statistics*, 58 (1), February 1996.

J. Mackinnon 'Food Supply, Nutrition and Mortality in Ethiopia: an Overview', Proceedings of the Conference of the Ethiopian Agri-cultural Economics Association, (forthcoming).

J. Mackinnon 'The Determinants of Information about Health in Uganda', *Journal of International Development* (Special Issue on Human Development in Africa), (forthcoming 1996).

J. Mackinnon 'The Determinants of Child Malnutrition and Mortality during Political and Economic Recovery in Uganda', in Proceedings of CSAE/CEPR Workshop on Poverty in Uganda, (forthcoming 1996).

J. Labour markets and returns to education

Investments in education are often advocated on the basis of rates of return estimated from the labour market. The conventional wisdom for Africa (and elsewhere) is that primary education has particularly high returns. Work by Simon Appleton, John Hoddinott, Pramila Krishnan and Kerry Max challenges this view, at least for Côte d'Ivoire, Ethiopia and Uganda in the 1980s and 1990s. Rates of return to primary schooling are found to be small, whereas secondary schooling and university tend to bring substantial wage premiums. In most cases, returns do not differ significantly by gender. The demand for primary schooling may still be substantial, however, since it is a pre-requisite for secondary education.

Rate of return studies are widely recognised as limited, in part because the assumption that wages reflect productivity may not hold. The collection of data on both firms and workers from CSAE's panel data survey of Ghanaian manufacturing enterprises allows this assumption to be tested. Tests by Tracy Jones do not reject the assumption, providing some support for human capital theory.

Other influences on wages have also been identified by Centre researchers. Also using CSAE's Ghanaian data, Francis Teal finds a strong relationship with firm size. This may reflect rent-sharing rather than

productivity effects, although work in progress aims to test an efficiency-wage explanation. Rent sharing may also be one explanation for the 'wage curve' found for Côte d'Ivoire by John Hoddinott with wages low in areas of high unemployment (contrary to the Harris-Todaro model). The efficiency of labour markets is also the focus of work by Pramila Krishnan who presents a test of labour market segmentation.

Abigail Barr argues that labour and capital should not be considered as the only factors of production: the knowledge and contacts of the entrepreneur are an additional determinant of production. Using the data on Ghanaian firms collected by CSAE, she finds a significant positive effect of various measures of this missing factor.

Newly available papers:

S. Appleton, J. Hoddinott and J. Knight 'Primary Education as an Input into Post-Primary Education: a Neglected Benefit', *Oxford Bulletin of Economics and Statistics*, Vol 58 (1), 1996.

S. Appleton, J. Hoddinott and P. Krishnan, 'The Gender Wage Gap in Three African Countries', CSAE mimeo, 1995.

S. Appleton, J. Hoddinott, P. Krishnan and K. Max, 'Does the Labour Market Explain Lower Female School Enrolment? Evidence from Three African Countries', in G. Navaretti, R. Faini and G. Zanalda (eds) *Labour Allocation in Development*, (forthcoming 1995).

S. Appleton, J. Hoddinott, P. Krishnan and K. Max, 'Gender Differences in the Returns to Schooling in Three African Countries', Centro Studi Luca d'Angliano / QEH Development Studies Working Paper No. 83 and Fondazione Eni Enrico Mattei Nota Di Lavoro, No. 24 (95).

S. Appleton, J. Hoddinott, P. Krishnan and K. Max, 'Gender Differences in the Returns to Schooling in Three African Countries — Extended Results', Background paper for the World Development Report 1995 on Labour Markets.

A. Barr 'The Missing Factor, Entrepreneurial Networks, Enterprises and Economic Growth in Ghana', CSAE WPS/95.11.

P. Collier 'African Labour Markets', *World Bank Economic Review*, Supplement, 1995.

P. Collier, J. Hoddinott and F. Teal, 'Urban African Labour Markets and the Policy Credibility Problem', in K. Wohlmuth (ed.) *African Development Perspectives Yearbook 1994-95*, (forthcoming).

C. Dinwiddie and **F. Teal**, *The Principles of Cost-Benefit Analysis for Developing Countries*, Cambridge University Press, (forthcoming 1996).

C. Dinwiddie and **F. Teal**, 'The Shadow Wage Rate: Theory and Practice', in *Journal of Public Economics*, (forthcoming).

J. Hoddinott 'Wages and Unemployment in Urban Côte d'Ivoire', CSAE WPS/93.3 (revised June 1995).

P. Jones 'Are Manufacturing Workers Really Worth Their Pay?', CSAE WPS/94.2.

P. Krishnan 'Family Background, Education and Employment in Urban Ethiopia', *Oxford Bulletin of Economics and Statistics*, 58 (1), February 1996. Also available as CSAE WPS/94.8.

P. Krishnan 'A Test of Labour Market Segmentation', CSAE mimeo, July 1995.

F. Teal 'Real Wages and the Demand for Labour in Ghana', CSAE WPS/95.7.

F. Teal 'The Size and Sources of Economic Rents in a Developing Country Manufacturing Labour Market', CSAE WPS/95.6.

K. Agriculture

In most African countries, the poor are less reliant on labour markets for their income than on smallholder agriculture. CSAE's expertise in this area was increased by the recruitment of Andre Croppenstedt who began by studying the determinants of farm productivity. Stefan Dercon has studied the impact of peace and liberalisation on grain and coffee markets in Ethiopia. Liberalisation appears to have increased the integration of local grain markets, presumably enhancing efficiency, but there has been only a modest increase in the supply of coffee to official channels.

With poorly developed labour markets, the distribution of land holdings across households may affect efficiency as well as equity. Work by Andre Croppenstedt, Bereket Kebede and Pramila Krishnan explore the nature of share-cropping in Ethiopia and how it may have been affected by the country's early land reform. Bill Kinsey explores the impact of land reform in Zimbabwe. John Mackinnon provides a model of land sales which can inform analysis of future land reform proposals.

Work by Professors Arne Bigsten and Paul Collier and John Mackinnon explore the linkages between agriculture and the macroeconomy.

Newly available papers:

D. Aredo, **A. Croppenstedt** and M. Demeke, 'On the Technical Efficiency of Peasant Farmers in Ethiopia: Evidence from Two Sites', CSAE mimeo, 1995.

L. Ayalew and **S. Dercon** 'Coffee Prices and Smuggling in Ethiopia', *Ethiopian Journal of Economics*, Vol 3 (2), October 1994.

S. Dercon and L. Ayalew, 'Smuggling and Supply Response: Coffee in Ethiopia', *World Development*, Vol 23 (10), October 1995. Also available as CSAE WPS/95.5.

P. Bevan 'Relationships Between People and Land in Eastern Africa: an Analysis of Recent Western Discourses', CSAE mimeo, August 1995.

H. Binswanger and **W. Kinsey** 'Characteristics and Performance of resettlement Programs: a Review and some Lessons from Experience' in J. van Zyl, J. Kirsten and H. Binswanger (eds) *Policies, Markets and Mechanisms for Land Reform in South Africa*, Oxford University Press: Cape Town.

P. Collier and **A. Bigsten** 'Linkages from Agricultural Growth in Kenya' in J. Mellor (ed.) *Agriculture on the Road to Industrialisation*, Washington DC: IFPRI, 1995.

P. Collier and P. Horsnell, 'Demographic Influences on the Adoption of Tree Crops in Kenya' in A. Mafeke and S. Radwan (eds) *Demographic Change and Economic Growth in Africa*, Clarendon Press, Oxford, 1995.

A. Croppenstedt and M. Demeke 'Measuring Technical Efficiency of Farmers in the Arssi Province of Southern Ethiopia: a Random Coefficients Approach', CSAE mimeo, 1995.

A. Croppenstedt and B. Kebede 'The Nature of Sharecropping in Ethiopia', Addis Ababa University mimeo, 1994.

S. Dercon 'On Market Integration and Liberalisation: Method and Application to Ethiopia', *Journal of Development Studies*, (forthcoming October 1995).

S. Dercon 'Food Markets, Liberalization and Peace in Ethiopia: an Econometric Analysis' in J.P. Azam and associates 'Some Economic Consequences of the Transition from Civil War to Peace' World Bank WP 1392, December 1994. Also available as CSAE WPS/94.6.

W. Kinsey 'A Decade and a Half of Land Reform in Zimbabwe: Where Next?' paper presented at the Conference on Land Policy in Southern Africa held at the Royal Institution of Chartered Surveyors, 14 November 1994.

W. Kinsey, H. McQuile and M. Rukuni, 'Rural households in Zimbabwe: a Review', Working Paper AEE 2/95, Department of Agricultural Economics and Extensions, University of Zimbabwe.

P. Krishnan 'Contractual Arrangements and Access to Land in Ethiopia', CSAE mimeo, February 1995.

P. Krishnan 'The Sharecropping Contract after Land Reform', CSAE mimeo, July 1995.

P. Krishnan 'Getting By and Getting On: Income Diversification in Ethiopia', Proceedings Rural Employment Conference, Leiden: Africa Studies Centre, 1995.

J. Mackinnon 'Macroeconomic Linkages between Agriculture and Other Sectors in LDCs: some International Evidence' in D. Aredo and J. Pickett (eds), Proceedings of the Workshop on Linkages in Addis Ababa, (forthcoming).

J. Mackinnon 'Land Sales in General Equilibrium', CSAE mimeo, 1995.

L. Poverty, asset accumulation and growth

Household survey data provides a useful means of assessing living standards, as shown by recent Centre studies of poverty and inequality in Ethiopia, Uganda and Zimbabwe. In the case of Ethiopia, the panel nature of the data allows an assessment of how poverty has changed since 1989. Preliminary results by Stefan Dercon and Pramila Krishnan indicate some improvements, although poverty remains acute in some areas. For Uganda, a similar exercise (but using repeated cross-sections) by Simon Appleton suggested the sensitivity of such comparisons to survey design. This suggests that survey data on household living standards may be more relative than is commonly thought. However, inferences about patterns of relative poverty may still be robust. A companion paper on the cross-section determinants of household variations in poverty suggested

that differences in assets (particularly human capital) were more important than differences in returns to these assets.

Sustained reductions in poverty depend ultimately on asset accumulation. A series of papers by Stefan Dercon explores the obstacles faced by the poor due to the combination of lumpy assets and credit rationing. These problems may constrain the poor to low return activities and expose them to greater risk (the latter effect reinforces the former if low return activities are also low risk). An empirical example of these predictions is provided by Tanzania where the poor are less likely to hold cattle (lumpy higher return assets) and more likely to grow drought resistant, low return crops.

Work by Philippa Bevan and collaborators broadens the economic analysis characterising most of CSAE's work on poverty. This is done both by considering wider conceptions of poverty and by drawing upon a wider range of evidence than data from household surveys. Taking the case of Uganda, this wider perspective allows exploration of the institutional, cultural and historical factors behind poverty and the success or failure of policies to alleviate it. Related papers suggest the need for care in applying conventional economic concepts to African societies and a proposed multi-disciplinary strategy for poverty research and monitoring.

Newly available papers:

S. Appleton 'Problems of Measuring Changes in Poverty over Time: the Case of Uganda 1989-92', *Institute of Development Studies Bulletin*, (forthcoming 1996). Preliminary version available as CSAE WPS/95.1.

S. Appleton 'The Rich Are Just Like Us, Only Richer: Poverty Functions or Consumption Functions? Evidence from Uganda', CSAE WPS/95.4.

S. Appleton and **J. Mackinnon** 'Poverty in Uganda: Causes, Characteristics and Constraints', forthcoming in Proceedings of CSAE/ EPRC workshop on poverty in Uganda, March 1995.

L. Berlage and **S. Dercon** 'Economische groei en Welvaarts-veranderingen in de Ontwikkelingslanden', in B. Battyn and W. Raeymakers (eds) Leuven: Universiteitspers, 1995.

P. Bevan 'The Neo-classical Study of African Economies: How do you know what you think you know?', CSAE mimeo, September 1995.

P. Bevan 'Rural Economies in Ethiopia: a Comparison', report, July 1995.

P. Bevan 'Studying Poverty in Uganda: a Multi-disciplinary Research Agenda', proceedings of Joint CSAE/AERC Workshop on Poverty in Uganda, Kampala, March 1995.

P. Bevan and A. Pankhurst (ed.) 'Rural Economies in Ethiopia: Fifteen Village Profiles', CSAE mimeo and Addis Ababa University, July 1995.

P. Bevan and A. Sseweya 'Understanding Poverty in Uganda: a Sociological Approach', CSAE and World Bank Working Papers, January 1995.

P. Bevan and A. Sseweya 'Studying Poverty in Uganda: a Multidisciplinary Research Agenda' in Proceedings of Joint CSAE/EPRC Workshop on Poverty in Uganda, Kampala, March 1995.

S. Dercon 'Risk, Crop Choice and Savings: Evidence from Tanzania', *Economic Development and Cultural Change*, (forthcoming January 1996).

S. Dercon 'Income Risk, Liquidity Constraints and Imperfect Assets' CSAE mimeo, 1994 (under revision).

S. Dercon 'Wealth, Risk and Activity Choice: Cattle in Western Tanzania', (revised 1995).

S. Dercon 'Voedselzekerheid: naar een Sociale Zekerheid voor de Allerarmsten' in *Leuvense Economische Standpunten*, Vol 77, November 1994 and in *Duurzaamheid, Wereldwijd*, The Other European Summit. Ver slagboek, Conference Proceedings of International Conference on Food Security, 7–11 December 1993, Brussels: VODO.

S. Dercon and **P. Krishnan** 'Changes in Welfare in Rural Ethiopia: 1989–94', CSAE mimeo, January 1995.

S. Dercon and **P. Krishnan** 'Poverty in Rural Ethiopia 1989–94', 1994 (under revision).

C. Jenkins 'Inequality between Households in Zimbabwe; an Assessment using the 1990/91 ICES Data', Harare: Central Statistics Office, 1995.

C. Jenkins 'Economic Policy and Rural Welfare in Zimbabwe, 1980–90', CSAE mimeo, December 1994.

C. Jenkins 'Economic Policy and Investment in Zimbabwe 1980–1990', CSAE mimeo, June 1995.

M. Gender and household issues

Gender issues arise in much of CSAE's research. The role of female education is central to much of the analysis of health, education and labour discussed above. Simon Appleton and Professor Paul Collier advocate expanding female education as one of the most promising forms of gender targeting. However, gender issues cannot be explored fully at the level of the house-hold. For example, in Uganda — a country with considerable gender inequality — Simon Appleton finds no significant difference between the economic welfare of women and men headed households. Ultimately, attention focuses on the welfare of the individual. For example, policy targets are often related to the percentage of individuals that can read, are in good health or can find gainful employment. Attempts to improve individuals' well-being, by governments, NGOs, bilateral or multilateral agencies, will be frustrated or enhanced by the mechanisms households employ to distribute resources amongst its members. John Hoddinott has focused on the processes by which resources are allocated among individuals, and the outcomes of these processes. A major emphasis has been the exploration of the merits and drawbacks associated with using game theory to explain household level outcomes. For example, in Côte d'Ivoire, increasing women's share of cash income leads to increases in the

budget share of food, and reductions in the budget share of alcohol and cigarettes, results consistent with a non-co-operative model of household expenditures.

Newly available papers:

H. Alderman, L. Haddad, **J. Hoddinott** and C. Udry, 'Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy', *Food Policy*, (forthcoming 1995).

H. Alderman, L. Haddad, **J. Hoddinott** and S. Vast, 'Strengthening Agricultural and Natural Resource Policy through Intrahousehold Analysis: an Introduction', *American Journal of Agricultural Economics*, Vol 76, pp. 1208–12, 1994.

H. Alderman, P.A. Chiappori, L. Haddad, **J. Hoddinott** and S.M.R. Kanbur, 'Unitary Versus Collective Household Models: Time to Shift the Burden of Proof?', *World Bank Research Observer*, Vol 10, 1995.

S. Appleton 'Woman-headed Households and Poverty: an Empirical Deconstruction', CSAE WPS/95.14, 1995.

S. Appleton and **P. Collier** 'Gender Targeting' in D. van der Walle and K. Nead (eds) *Public Spending and the Poor: Theory and Evidence*, Baltimore and London: Johns Hopkins University Press for the World Bank, (forthcoming 1995).

P. Bevan and M. Sengendo 'Gender and Social Change in a Peri-urban Area of Uganda', CSAE mimeo and Women's Studies Dept, Makerere University.

J. Hoddinott and L. Haddad 'Does Female Income Share Influence Household Expenditures? Evidence from Côte d'Ivoire', *Oxford Bulletin of Economics and Statistics*, Vol 57, 1995.

N. Environmental issues

Despite the considerable literature concerning poverty and the environment in rural Africa, and its generally pessimistic conclusions, empirical analyses that systematically explore the links between the economics of peasant households and the characteristics of the surrounding resource base and ecosystems are rare. To analyse these links, William Cavendish has collected a purpose-built data set from a set of 29 villages in rural Zimbabwe. This data will be used to examine the contribution of natural resources to household welfare, the impact of resource dependence on peasant economic strategies, the role of economic factors in determining environmental change, and the success or failure of communal property systems in coping with environmental externalities.

A concern is often raised at the ability of developing countries to sustain per capita income growth and population increases without seriously damaging the environment. Dennis Anderson and William Cavendish examine this issue using three sectoral simulation models to quantify the trade-off between growth and improved environmental quality as clean technologies are being introduced and the economic inefficiencies common in developing countries reformed. They show that the incremental costs of environmental clean ups may be small, and in particular, smaller

than the likely efficiency gains from price and enterprise reforms. Furthermore, technological substitution, though slow acting, may eventually produce gross reductions in environmental damage, despite considerable rises in per capita demands.

Newly available papers:

W. Cavendish 'Economics and Ecosystems in the Study of Zimbabwean Peasant Households' in V. Bhaskar and A. Glyn (eds) *The North, the South and the Global Environment*, Earthscan, London, 1995.

W. Cavendish and D. Anderson 'Efficiency and Substitution in Pollution Abatement', *Oxford Economic Papers* 46, 1994.

D. Anderson and **W. Cavendish** 'Efficiency and Substitution in Pollution Abatement: Three Case Studies', World Bank Discussion Papers No. 186.

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Appendix B: CSAE publications

Journal of African Economies

In the last few years there has been a growing output of high quality economic research on Africa, but until the advent of the *Journal of African Economies* it was scattered over many diverse publications. Now this important area of research 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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Dr J.U. Umo (National Directorate of Employment, Nigeria)

Professor M. Wuyts (Institute of Social Studies, The Netherlands)

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- WPS/95.1 **Simon Appleton** `Problems of Measuring Changes in Poverty over Time: the Case of Uganda 1989–92`
- WPS/95.2 **Simon Appleton** `The Impact of Public Services on Health Care and Morbidity: Evidence from Kenya`
- WPS/95.3 **Simon Appleton** `Socio-economic Factors, Fertility and its Proximate Determinants in Côte d'Ivoire`
- WPS/95.4 **Simon Appleton** `The Rich are Just Like Us Only Richer: Poverty Functions or Consumption Functions?`
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- WPS/95.7 **Francis Teal** `Real Wages and the Demand for Labour in Ghana's Manufacturing Sector`
- WPS/95.8 **Paul Collier** `Civil War and the Economies of the Peace Dividend`
- WPS/95.9 **John Mackinnon** `Health as an Informational Good: the Determinants of Child Nutrition and Mortality during Political and Economic Recovery in Uganda`
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- WPS/95.11 **Abigail Barr** `The Missing Factor: Entre-preneurial Networks, Enterprises and Economic Growth in Ghana`

- WPS.95.12 **Stefan Dercon** and **Pramila Krishnan** 'Income Portfolios in rural Ethiopia and Tanzania: Choices and Constraints'
- WPS/95.13 **Carolyn Jenkins** and **Willem Naudé** 'The Case for Reciprocity in South African/European Trade Relations'
- WPS/95.14 **Simon Appleton** 'Women-Headed Households and Poverty: an Empirical Deconstruction for Uganda'
- WPS/95.15 **John Mackinnon** 'Small and Large Price Reforms'

Appendix C:

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(CSAE members and research associates highlighted)

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- and **S. Appleton**, 'Education and Health in Least Developed Countries', forthcoming as the Special Issues Section of the UNCTAD, *Least Developed Countries Report 1994*.
- 'Enhancing Human Capacities in Africa', in B. Ndulu and N. van der Walle, *Agenda for Africa's Economic Renewal*, Washington DC: Overseas Development Council, [forthcoming 1996].

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- 'Determinants of Military Expenditure in Sub-Saharan Africa', *Ethiopian Journal of Economics*, Vol. 1 (3), October 1993.
- 'The Development Trap: Militarization, Environmental Degradation, and Poverty in the South', in P. Rogers and G. Tansey (eds), *A World Divided, Militarism and Development After the Cold War*, London: Earthscan, 1994.
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 - 'The National Financial Accounts, Growth and Development', *South African Journal of Economics*, Vol. 62 (1), 1994.
 - 'The Income-Generating Ability of Infrastructural Projects', in Styger *et al.* (eds), *Funding for Development*, Villeria: Development Society of Southern Africa, 1994.
 - 'On the Persistence of Shocks to Ethiopia's Terms of Trade: a Time Series Analysis', *Eastern Africa Social Science Review*, Vol. 11 (1), January 1995.
 - 'South Africa's Transition: Some Unpleasant Macro-economic Arithmetic', *Cambridge Review of International Affairs*, Autumn 1994.
 - 'Teaching Applied General Equilibrium Modelling', *Computers in Higher Economics Education Review*, November 1994.
 - 'Aspekte van Afrika se Ekonomiese Katastrofe', *South African Journal of Economics*, [forthcoming 1995].
 - 'Expectations and the Non-Neutrality of Money', *Journal of Studies in Economics and Econometrics*, [forthcoming 1995].
 - and P. Brixen, 'On a Computable General Equilibrium Model for South Africa', *South African Journal of Economics*, September 1993.

- and Z.R. Coetzee, 'Township Economic Infrastructure: Quantifying the Imbalances', *Development Southern Africa*, [forthcoming 1995].

Teal, F. and C. Dinwiddy, *The Principles of Cost-Benefit Analysis for Developing Countries*, Cambridge University Press, [forthcoming 1996].

- 'The Shadow Wage Rate: Theory and Practice', in *Journal of Public Economics*, [forthcoming].
- and **P. Collier** and **J. Hoddinott**, 'Urban African Labour Markets and the Policy Credibility Problem', in K. Wohlmuth (ed.), *African Development Perspectives Year-book 1994–1995*, [forthcoming].

Appendix D: Conferences and seminars

Papers presented by CSAE members

(CSAE members and research associates highlighted)

- C.S. Adam**, 'Liberalization and Adjustment in Tanzania and Zambia', Canadian International Development Agency, Ottawa, October 1994.
- 'Managing the Exchange Rate in Zambia', Harvard Institute for International Development, November 1994.
 - 'Aid and Conditionality', Centre for International Affairs/ HIID, Harvard.
 - 'The Politics and Economics of Privatization in Zambia', Royal African Society, London, March 1995.
 - 'Adjustment in Zambia: Too Little or Too Much?', Economics Association of Zambia, Lusaka.
 - 'Reform in Zambia, *Opportunity Africa*, August 1995.
- and **D.L. Bevan** 'Aid and Debt: What Next for Zambia?', Economics Association of Zambia, Lusaka, September 1995.
- 'Fiscal Consequences of Exchange Rate Regimes in Africa', Warwick Summer Workshop in Economics, July 1995.
- S. Appleton**, 'Enhancing Human Capacities in Africa', Overseas Development Council Workshop, Washington, April 1995.
- 'The Rich are Just Like Us, only Richer: Evidence from Uganda', Institute of Development Studies, January 1995.
 - 'Gender Differences in Returns to Education in Africa', Luca d'Agliano Decennial Conference, 'Labour Allocation in Development', Queen Elizabeth House, Oxford, December 1994, and ESRC Development Economics Study Group Annual Conference, 'Human Development', University of Leicester, March 1995
- J. Aron**, 'Africa in the 1990s: Growth Issues', Masters Seminar, University of Cape Town, South Africa, March 1995.
- 'Foreign Exchange Auction Markets in Sub-Saharan Africa', Staff Seminar Series, University of Cape Town, South Africa, March 1995.
 - 'Africa in the 1990s: Improving International Linkages', Global Coalition for Africa Conference 'Africa in the 1990s', Goree Island, Senegal, February 1995.
- D.L. Bevan**, 'Developing Countries after Conflict', Queen Elizabeth House, October 1994.
- 'Macroeconomic Adjustment in Zambia', London School of Economics seminar series on 'The Economics of Less Developed Countries', November 1994.

- ‘Liberalization in Zambia’, University of Clermont-Ferrand, March 1995.
- ‘Findings of Public Expenditure Review, Ethiopia’, to members of the donor community, Addis Ababa, May 1995.
- P. Bevan**, ‘Relationships between People and Land in Eastern Africa: an Analysis of Recent Western Discourse’, joint CSAE/CMI Conference on Land Reform, March 1995.
- and A. Pankhurst, ‘Some Findings from the Project on the Sociology of Rural Economies in Ethiopia’, Addis Ababa, July 1995.
- and A. Sseweya, ‘Studying Poverty in Uganda: a Multi-disciplinary Research Agenda’, joint CSAE/EPRC work-shop on Poverty in Uganda, Kampala, March 1995.
- W. Cavendish**, ‘Comments on Rapid Rural Appraisal and Markets for Non-timber Tree Products’, World Bank/IFPRI workshop on ‘Non-timber Tree Product Market Research’, Annapolis, USA, December 1994.
- ‘Participatory Research Assessment and the Economics of Peasant Natural Resource Use — Some Critical Comments’, IIED workshop on ‘The Hidden Harvest: Wild Resources and Agricultural Systems’, London, June 1995.
- P. Collier**, ‘Shocks and Liberalisation’, Gothenburg, April 1995.
- ‘The Transition from War to Peace’, Clermont-Ferrand, April 1995.
- ‘Trade Liberalization in Zimbabwe’, Zimbabwe, March 1995.
- ‘Exchange Rate Management during Liberalisation’, World Bank, Washington, January 1995.
- ‘The Effects of Trade Liberalisation’, Zimbabwe, January 1995.
- ‘The Political Economy of Corruption’, Princeton University, February 1995.
- ‘Managing Shocks: Theory and the Example of the Current Ugandan Coffee Boom’, Columbia University, December 1994.
- ‘The Ugandan Coffee Boom’, World Bank, January 1995.
- ‘The Economics of the Transition from War to Peace’, Toronto, December 1994.
- ‘The Marginalisation of Africa in the World Economy’, Geneva, November 1994, and Harvard, October 1994.
- ‘Consequences of Demobilisation after Civil War’, Development Assistance Committee, Paris, November 1994.
- ‘The Economics of the Transition to Peace’, Harvard, November 1994.
- A. Croppenstedt** and B. Kebede, ‘The Nature of Share-cropping in Ethiopia’, 4th Annual Conference of the Ethiopian Economic Association.
- S. Dercon**, ‘Risk, Crop Choice and Savings: Evidence from Tanzania’, Centre for Economic Studies, Leuven, October 1994, and London School of Economics, November 1994.

- 'Food Markets, Liberalization and Peace in Ethiopia: an Econometric Analysis, Centre for Economic Studies, Leuven, November 1994.
- 'Smuggling and Supply Response: Coffee in Ethiopia', Centre for Economic Studies, Leuven, January 1995.
- J. Hoddinott**, 'Wages and Unemployment in Côte d'Ivoire', University of Reading, December 1994, and Queen Elizabeth House, June 1995.
- P. Krishnan**, 'Poverty in Rural Ethiopia 1989–94, Ethiopia Network Workshop, London, January 1995.
- 'Contractual Arrangements and Access to Land', joint CSAE/CMI Conference on Land Reform, Oxford, March 1995.
- J. Mackinnon**, 'Poverty in Uganda: Characteristics, Causes and Constraints', CSAE/CEPR Inaugural Workshop on Poverty, March 1995.
- 'Health as an Informational Good: the Determinants of Child Mortality and Malnutrition during Political and Economic Recovery in Uganda', CSAE/CEPR Inaugural Workshop on Poverty, March 1995.
- 'Food Supply, Nutrition and Mortality in Ethiopia: an Overview', Inaugural Workshop of the Ethiopian Agri-cultural Economics Society, May 1995.
- 'Why do so Many Ugandan Children Die?', University of Warwick Economics Department Development Seminar, March 1995.
- F. Teal**, 'Preliminary Results of the Three Waves of the RPED Data', Accra, April 1995.
- 'Results of the Three Waves of the RPED Survey', Accra, September 1995.

CSAE seminars

- C.S. Adam** (CSAE), 'Aid, Conditionality and the Political Economy of Reform in Africa'.
- S. Appleton** (CSAE), 'Determinants of Poverty in Uganda'.
- A. Barr** (CSAE), 'Who You Know and What You Know: the Role of Enterprise Networks in Business in Ghana'.
- P. Bevan** (CSAE), 'Studying African Economies: How Do You Know What You Think You Know'.
- 'Poverty in Uganda: a Sociological Approach'.
- P. Collier** (CSAE), 'A model of Civil War'.
- A. Croppenstedt** (CSAE), 'Technical Efficiency in Farming in Ethiopia'.
- D. Fielding** (Nottingham University), 'Investment in South Africa'.
- P. Jones** (CSAE), 'The Effect of Education on Wages and Firm Productivity: Evidence from Ghana'.
- R. Kanbur** (World Bank), 'A Continent in Transition: Sub-Saharan Africa in the mid-1990s'.

- P. Krishnan** (CSAE), `Getting By and Getting On`.
- J. Mackinnon** (CSAE), `Land and Other Assets`.
- R. Mash** (CSAE), `Costs and Benefits of Commodity Price Volatility for LDCs`.
- T. Mengistae** (CSAE), `Market Selection and Industry Effects on Firms Growth in Ethiopia`.
- P. Moll (Northwestern University), `Human Capital, Cognitive Skill and Schooling in South Africa`.
- W. Naudé** (CSAE) and R. Coetzee, `Infrastructural Investment and Black Urban Business Development in South Africa`.
- J. Round (Warwick University), `Measuring the Contribution of the Informal Sector to GDP in Ghana`.
- F. Teal** (CSAE), `Structural Adjustment and the Demand for Labour in Ghana`.
- `Real Wages and the Demand for Labour in Ghana's Manufacturing Sector`.
- R. Tibana** (CSAE), `Recent Developments in the Manufacturing Industry in Mozambique`.
- M. Tjirongo** (CSAE), `Determinants of Real Exchange Rates in Namibia`.
- A. Wood (Sussex University) `Can Africa Export Manufactures?`