TWENTYFIFTH REPORT

ACTIVITIES IN THE PERIOD

OCTOBER 1984 to SEPTEMBER 1985
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COMMITTEE OF MANAGEMENT, JANUARY 1985

SWAMI AMRIT TERRY (T.S. BARKER)
B.M. DEAKIN (Assistant Director)
W.A.H. GODLEY (Director)
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A. HUGHES (Chairman)
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M.R. WEALE

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A. MASON (Assistant Staff Observer)

Social change and economic life: the Northampton labour market
Economic policy in Northern Ireland
Urban/rural shift and the evaluation of urban and regional policies in Britain
The economic role of cities in the context of changes in UK economic structure
To acquire, organise and write software for an international trade database
Company finance and performance
Company failure and rescue policy
Stabilisation: a macroeconomic policy to reconcile full employment and price stability
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Wage determination in imperfect labour markets
Institutional investment, mergers and public policy
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II PUBLICATIONS
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DAE Economic Reprints

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Teaching for the University
Teaching for the Colleges
Service on University Committees
EARIE Conference

GROWTH AND FLUCTUATIONS IN THE BRITISH ECONOMY:
PRODUCTIONS FOR PLANNING

IV FINANCE

V STAFF
Senior Research Officers
Research staff
Visiting scholars
Assistant staff

Mr A. Rees
Research Officer
Mr A. Rees
Research Officer
Professor Sir Richard Stone
University of Cambridge
Mr N.R. Weeks
Research Officer (resigned January 1985 to join DAE Stagflation project)
TWENTYFIFTH REPORT OF THE DEPARTMENT OF APPLIED ECONOMICS  
(coversing the year October 1984 to September 1985)

I  RESEARCH ACTIVITIES

This section outlines the work done in 1984-85 on the research projects being conducted in the Department.

A  ECONOMICS

GROWTH AND FLUCTUATIONS IN THE BRITISH ECONOMY: PROJECTIONS FOR PLANNING

Project members

Swami Amrit Terry Senior Research Officer  
(Dr T.S. Barker)

Dr V.K. Borooah Senior Research Officer

Dr M. Kumar Research Officer

Dr M. Landesmann Research Officer

Dr A.W.A Peterson Senior Research Officer (resigned July 1985 but continuing as a Principal Investigator)

Mr R.G. Pierse Research Officer

Mr A. Snell Junior Research Officer

Professor Sir Richard Stone Professor of Finance and Accounting University of Cambridge

Mr M.R. Weale Research Officer (resigned January 1985 to join DAE Stagflation project)
new ones and the examination of the overall performance of the model and its projections. During the period of this report, responsibility for research into various aspects of the model was allocated as follows:

Swami Amrit Terry (T.S. Barker) co-ordination of research; exports, imports and their prices; complete model simulations
Vanitha Boroanah consumers' expenditures
Mannoham Kumar industrial average earnings and price equations
Michael Landesmann stockbuilding and production
Tony Lawson expectational variables in the model
William Peterson industrial investment and employment functions; energy submodel; complete model simulations
Richard Pierse income, spending and portfolio allocation of the personal sector; econometric methods; solving the model over the past
Andrew Snell the exchange rate
Martin Weale the financial model; industrial pricing

Progress of the research
The main developments in the model during the year have been the inclusion of new stockbuilding equations included company liquidity effects, and revised investment and industrial price equations. The forecasting version of the model, as provided in September 1985 to the ESRC Macroeconomic Bureau, University of Warwick, now includes equations for both the rate of average earnings and the exchange rate.

Relationship with the ESRC Macroeconomic Modelling Bureau
The 1984 version of MDM6, together with the forecasts produced by Cambridge Econometrics (1984/4), was supplied to the ESRC Macroeconomic Modelling Bureau at the University of Warwick in December 1984 and the 1985 version, together with forecasts 1985/2
and 1985/3, was sent in September 1985. The model-solving package IDIOM and the regression package MREG which solve the model and handle the data are both in standard FORTRAN 77 so earlier problems of compatibility with the Warwick mainframe are virtually eliminated. Members of the project attended the ESRC Consortium meeting in Warwick in July and a brief outline of the CGP model was presented.

Other activities
The project has run a full programme of seminars and workshops during term-time in Cambridge and in addition members of the project have presented papers at seminars and conferences elsewhere.

Publications
The following books and papers reporting the work of the project have been published during the year or have been accepted for future publication.


Lawson, Tony (forthcoming b). The context of prediction (and the paradox of confirmation). British Journal for the Philosophy of Science


Ploeg, F. van der (forthcoming). Optimal control methods for the formulation of economic policy. Systems Science, Poland


Weale, Martin (forthcoming a). The structure of personal sector short-term asset holdings. Manchester School


Conference Papers

The following papers have been presented at conferences during the year

IIASA Task Force Meeting on Input-Output Modeling, Laxenburg, Austria, October 1984

Amrit Terry Endogenising input-output coefficients by means of industrial submodels (T.S. Barker)

Xth Conference on Problems of Building and Estimation of Large Econometric Models, Lodz, Poland, October 1984

Amrit Terry Analysing economic policies with a large-scale multisectoral dynamic model: the Cambridge model of the UK economy (T.S. Barker)

Inter-University Software Conference on Econometric Software, LSE, January 1985

William Peterson Sophisticated econometrics for naive users with G.A. Hughes


M.A. Landesmann U.K. policies and the international economy: an internationalist perspective


Amrit Terry Dynamic multipliers for MDM (T.S. Barker)

Vani Burrough Aggregate consumption and the distribution of income in the United Kingdom: an econometric analysis and Don Sharpe
Mannoh san Kumar The determinants of average earnings in the UK
Michael Landesmann European industrial specialisation
William Peterson Industrial investment, profitability and the cost of capital
William Peterson Prospects for job creation: an exploration using MDM
and David Turner
Richard Pierre A condensed form of MDM
and David Turner
Andrew Snell Developments in the exchange rate model
ESRC Macroeconomic Consortium Conference, University of Warwick, July 1985
Amrit Terry The CGP model of the British economy
(T.S. Barker)
Fifth World Congress of the Econometric Society: Massachusetts Institute of Technology, Cambridge, Mass., August 1985
M.A. Landesmann Relative industrial performance, market shares determination and disproportional growth in interdependent economies
12th Annual Conference of EARIE, Queens' College, Cambridge, September 1985
Mannohsan Kumar Mergers, concentration and mobility amongst the largest non-financial corporations
(with A. Hughes)
Seminars
The following seminars have been given during the year
Amrit Terry and Linda Hesselman 'An assessment of CE's industrial forecasts 1979–82' (given to the Cambridge Growth Project, March 1985)
Vani Borooah 'Aggregate consumption and the distribution of income' (given to the Cambridge Growth Project, January 1984)
Mannohsan Kumar 'Interindustry structure of earnings re-examined' (given to the Cambridge Growth Project, March 1985)
Michael Landesmann 'European industrial structures and trade performance' (given to the Cambridge Growth Project, February 1985)
William Peterson 'Investment and industrial profitability' (given to the Cambridge Growth Project, February 1985)
Martin Weale 'Intersectoral comparisons of risk aversion' (given to the Cambridge Growth Project, February 1985)
'More important are expectations? The life assurance and pension funds' (given to the Cambridge Growth Project, November 1984 and ESRC Money Study Group, February 1985)
Growth Project Papers (GPP)
559 Implementing the Pesaran-Evans consumption function - Richard Pierse
560 Econometric tests for MDM - Richard Pierse
561 Policy analysis after the rational expectations revolution - Andrew Snell
562 A test of the rational expectations hypo thesis in the context of a simple financial model - Andrew Snell
563 How important are expectations? The life assurance and pension funds - Martin Weale
564 Theoretical models of disproportional growth and international interdependence - Michael Landesmann
565 Relative competitive performance and market shares determination - Michael Landesmann
566 Inter-industry relationships and processes of international integration - Michael Landesmann
567 Disaggregated industrial forecasting performance UK 1979–82: Cambridge Econometrics, National Institute and naive forecasts compared - Amrit Terry and Linda Hesselman
568 Average earnings in the UK and the real wage resistance hypothesis - Mannohsan Kumar
569 A Wald test of the restrictions implied by the rational expectations hypothesis - Andrew Snell
The context of prediction (and the paradox of confirmation) - Tony Lawson

Uncertainty and economic analysis - Tony Lawson

Sam Unit Papers (SUP)

120 UK import duties 1959-83 for MDM7 - Amrit Terry

Rocket Program Papers (RPP)

82 Consumers' expenditure data: new and old Blue Book classifications - Vani Borooah

Growth Program Manuals (GPM)

5 MDM6 Users Manual (October 1984) - Amrit Terry

ASSESSING ECONOMIC POLICY IN THE UK AND EUROPE

Project Members
K.J. Coutts
T.F. Cripps
Professor W. Godley

G.H. Gudgin
T.S. Ward

Sponsor: ESRC

This report covers the second year of a four-year programme which developed out of earlier research on the Effects of Economic Policy undertaken at the DAE and which is being sponsored by the ESRC Macroeconomic Modelling and Forecasting Consortium. The project aims to integrate the treatment of national issues within a coherent framework of analysis of the world economy and Europe as a whole. The general aim is being pursued at a number of levels simultaneously.

(a) Macroeconomic theory
K. Coutts, W. Godley and G. Gudgin have been working throughout the year on a new book, to be published by Basil Blackwell, on macroeconomic theory and modelling.

This work is motivated by the belief that the powerful insights of James Tobin into the role of money and finance in the macroeconomic process have not influenced sufficiently the paradigm within which macroeconomics is currently taught and the strategy habitually adopted by modellers of real economic systems.

The work starts from the observation that the logical constraints on the behaviour of economic systems as deployed in the IS-LM paradigm are confined to identities between flow variables, the stock of money and financial assets having at best an obscure accounting relationship to other variables. Our premise is that the accounting system should be based on national and sectoral balance sheets, with all sectoral flows being closed off by changes in the stock variables as recorded in these balance sheets. The full articulation of the accounting system, which implies the tracking of all stock variables through time, has a profound effect on the way economic systems behave.

The statistical and conceptual framework which is emerging from this work differs in certain respects from that which has habitually been used for econometric modelling. In particular it requires that estimates of stock variables should be consistent with the flow accounts (which is far from the case at present). It also implies a revised definition of real sectoral disposable income such that it is broadly consistent with Hicks' famous definition. The inflation accounting of whole economic system has to be carried out to achieve a consistent translation of nominal into real stocks and flows.
(b) Policy models

1. Assessing economic policy in the UK

K.J. Coutts and T.S. Ward presented a paper to the ESRC Macroeconomic Modelling Bureau Summer Conference held at Warwick in July 1985. The purpose of the paper was to compare policy simulations using the ESRC-supported econometric models of the UK economy. These models are presently available to academic users through the Bureau's USER service, which allows users to run versions of the models held on the Warwick University computer. The work involved two months intensive use of the Bureau's service, accessed via the JANET network, with results downloaded to a microcomputer for tabulation and plotting.

A subsidiary purpose of the exercise was to test the usefulness of the Bureau's service in giving academics access to the macroeconomic models, and of model proprietors in making the details of their models sufficiently coherent for non-proprieters to run them. Policy simulations were run on a version of H.M. Treasury, the London Business School, the National Institute and the City University Business School models.

2. The world economy

The international aspects of work on this project (mainly carried out by T.S. Ward) have continued to centre upon the European economies and have continued to be carried out in collaboration with economists from other European countries under the auspices of the European Federation for Economic Research (FERE), the administration of which has since January this year been conducted from Cambridge. The particular focus of research has been on the place of the European economy as a whole in the global economic system. The study is nearing completion and the main findings will be presented at an international conference in Brussels in January 1986, organised by the FERE, to which senior officials of the European Commission, members of the European Parliament and journalists will be invited, as well as academic economists with a particular interest in this area.

The study has four main parts. The first is to analyse the trade relations between Europe and the rest of the world in the context of global trade patterns. The issues examined here are the extent to which it is possible and desirable to treat Europe as an economic entity, the extent to which trade is complementary and the competitive position of Europe vis-à-vis the US and Japan. The second part is concerned with developments in the international financial system and how these have affected European countries, with particular focus on the implications of the growing scale of capital flows between currencies and of the breakdown of the management of exchange rates and of international credit creation in the early 1970s. The third part deals with government policy, examining the nature and strength of constraints on the pursuit of economic policy at the national level and the response of national governments to what appears to be a significant narrowing in their room for manoeuvre. It concludes by assessing the prospects for political cooperation or even unification, within Europe. The fourth part presents the results of simulating the FERE model of the world economy on various assumptions about future developments and the economic policy of the major national governments. This is intended to produce a quantitative underpinning of the analysis of the earlier sections and of the policy conclusions reached there.

Publications and Papers

K.J. Coutts and W. Godley

'IS-LM and Stock adjustment models'. Presented at the AUTE Conference in April 1985

'Notes on macroeconomic theory', DAE mimeo

'The teaching of macroeconomics using the IS-LM paradigm: a critique based on Artis' new textbook', DAE mimeo

T.S. Ward

'Oil and the Economic Crisis', paper delivered to the International Conference, Arab Petro-Dollars: what happens to them? London 15-16 July 1985

'European trade and Europe in the World Economy', working paper for FERE study on Europe in the World Economy
'Steps towards European Political Integration', working paper for FERE study on Europe in the World Economy


'Comments on the 1985 Budget', in Eighth Report from the Treasury and Civil Service Committee, Session 1984-85

K.J. Coutts and T.S. Ward

'Experiments in Policy Simulation using the Warwick Bureau Service', DAE mimeo

In addition to these papers, project members have been invited to speak on theory or policy in Bremen, Luxembourg, Florence, Paris and a number of British universities.

THE DOMINICAN ECONOMY

Project Members: K. Coutts and T.S. Ward
Visitors: F. Pellerano (Economic Section of the H. Giuliani Central Bank of the Dominican Republic
Sponsor: The Central Bank of the Dominican Republic

The aim of the project is to construct a macroeconomic model for the use of the Bank's economic staff to analyse the implications of alternative government policies and the impact of external shocks on the domestic economy. The model will run on a microcomputer and be developed simultaneously in Cambridge and Santo Domingo, with a communications link via a data network.

LABOUR STUDIES GROUP

Members: Jill Rubery, Roger Tarling, Frank Wilkinson
Associate Members: David Canning, Christine Craig

1. International Working Party on Labour Market Segmentation

The Labour Studies Group continued its active involvement with the International Working Party throughout the year. This body is composed of researchers from 14 countries (11 West European with Hungary, the USA and Canada) and meets annually in different European countries. It provides a forum for reporting and comparing research findings and fostering international - and particularly inter-European - research collaboration. A comparative project on the footwear industry in collaboration with the 'Centre des études de l'emploi' in Paris and the Economics Department in Modena University will be undertaken the Labour Studies Group in 1986.

2. Employment consequences of changes in the manufacturing production process

Project members: Jill Rubery, Roger Tarling, Frank Wilkinson
Sponsor: ESRC

This project was designed to investigate how employment was affected by the introduction of new methods of production and new products. It was quickly realised that changes in the size and organisation of the labour force were rarely seen by the firm as a primary objective but were a by-product of other strategies. However, as such they were of central importance in the successful implementation of changes. It therefore became important to locate the reorganisation of production and the labour force firmly within the broad context of the firms' changing internal organisation and decision-making processes and of changes in technology and in product and labour market conditions.
Perhaps the most important finding was the very great difficulty there is in generalising about how firms have responded, or about the relationship between change and relative success. At one extreme, very successful firms had quite rigidly maintained existing systems of marketing, production and organisation whilst, at the other, dramatic changes have not guaranteed success. However, the vast majority of the firms we interviewed have undergone substantial change since the late 1970s and the most important aspect of this is the increased capacity to respond flexibly to product market demands.

The response of firms to changing conditions is, as might be expected, closely related to the nature of product markets, available technology, and the pace of technical change. But it is important to recognise the role of internal organisation and reorganisation. Important factors here include a widespread decentralisation of responsibility for production and marketing; the changing role of design and its closer integration with production; and the increasing tendency to 'put-out' stages of production, business and other services. An important aspect of the change in research, development and design is its increasing concentration on day-to-day problems of production and marketing. Almost all firms we talked to pay continuous attention to opportunities to improve marketability, simplify production and cut costs directly by 'designing out' labour and work in progress. For this purpose many firms have established joint teams consisting of managerial and other specialists in production, marketing, finance, research and development, and design. These developments are often at the expense of more detached, longer-term research and development.

Almost all the firms surveyed had substantially reduced their labour force, particularly in direct production employment. But this has generally been achieved within the existing framework of industrial relations rather than by a widespread change in the level of trades unionism or changes in collective bargaining procedures. Nor is there much evidence of major changes in the skill structure of the

labour force except for the increased flexibility and interchangeability of labour. Where new skills are needed the tendency has been for existing labour to be retrained - but where these tasks are allocated, for example to skilled production workers or to technical or white collar staff, depends on the system of industrial relations as well as on the technical and production requirements of the specific firm. We found little evidence of the widespread adoption of computer aided design and computer aided manufacture. But where these systems had been adopted the tendency was to integrate them with existing methods so that change has been significant rather than revolutionary. The results of the research have been analysed and the final report submitted to the ESRC. We are now reworking the material in preparation for writing a book.

3. A report on the Department of Employment's study 'Wage Flows in the Clothing Industry 1950-81'

Project members: David Canning, Roger Tarling

Sponsor: National Union of Tailors and Garment Workers

The report, which contains an overview of the findings under joint authorship and a technical reappraisal by David Canning, was submitted to the Union at the end of July, 1985. It has been printed as a booklet by the Union and should be released in October 1985.

The main finding was that data and specification problems in the DE study had led to an over-emphasis on the importance of minimum wages in reducing employment, with too little attention being given to competitive pressures within the sector, particularly those originating from overseas.
4. Social Change and Economic Life: The Northampton Labour Market

Project members: F. Wilkinson
R. Tarling
J. Rubery
R. Jobling (Faculty of Economics and Politics)
C. Fraser (Social and Political Sciences)
C. Marsh (Social and Political Sciences)

Associate members: R. Blackburn, K. Frandy

Sponsor: ESRC

In March 1985 a Cambridge team was selected to participate in the ESRC’s interdisciplinary Social Change and Economic Life initiative. This involves the study of six local labour market areas in England and Scotland, each one under the responsibility of a separate team. The Cambridge team will be studying Northampton. The initiative will be coordinated at the national level by Dr. Duncan Galie of Nuffield College, Oxford.

The aim of the initiative is to study social change and economic life from an interdisciplinary perspective and through a range of different methods. Thus the initiative will study the local labour market from the perspective of employers, individuals and households; it will involve work by economists, sociologists, social psychologists and statisticians and it will have both an historical and a contemporary dimension. There will be common parts to the work in the six areas, but also considerable scope for each team to develop its own particular interests and perspectives. In particular there will be three main ‘core’ surveys: the first involving 1000 individuals in each locality, the second, 300 employers in each locality, and the third 300 households in each locality. Each of these surveys will have a substantial common element, but each will also allow for team-specific questions to be included. The Cambridge team's responsibility is to contribute to the construction of these questionnaires and to the analysis of the data, but the actual surveys will be carried out by other agencies. In addition to these surveys the common part of the programme requires the team to carry out an interview survey of 30 firms and intensive case-studies of 12 firms. Each team will also be carrying out two or more related studies.

Publications
E. Garnsey, J. Rubery and F. Wilkinson (1985). Labour market structure and workforce divisions, Unit 8 of the Open University Course Work and Society, to be reprinted in a book Work and Society based on selected units from the course
ECONOMIC POLICY IN NORTHERN IRELAND

Project members: D. Canning, B.C. Moore, and J. Rhodes
Sponsor: ESRC

Aims of the Project
The aims of this 2-year project, which started in November 1982, were to study the Northern Ireland labour market and the role of the public sector in the Province, and the dynamic relationships between the two, in order to compare and contrast the impact of alternative economic development strategies. The study of the labour market which is the first part of the project aims to answer the question of why Northern Ireland has experienced persistent and substantial labour market imbalance relative to the position in Great Britain. The method used is firstly to construct labour market balance sheets for the Province and for Northern Ireland covering a long period of time and including the main components of labour demand and supply. The second stage is to disaggregate and quantify the main components of demand and supply and study changes in relation to their counterparts in Great Britain.

The second part of the project aims to analyse public service provision in the Province in the context of the system and principles adopted by Central Government for allocating public expenditure throughout the UK. The objective is to assess how far public expenditure in the Province can be justified in terms of its special expenditure needs and thus to see how far the fiscal transfer from Great Britain is in accord with normal equalisation principles, falls short of them or exceeds them.

Finally the study aims to draw from the main analysis some implications for policy and specifically to identify and explore the relative merits of four policy options for promoting a faster rate of economic development in Northern Ireland.
The Exchequer cost of creating one new job for ten years in health or education is less than the Exchequer cost of creating a manufacturing job in recent years, using conventional regional policies.

The level of taxation officially attributed to Northern Ireland is a good indicator of the taxes actually paid.

Because of the earnings convergence, tax revenue collected in Northern Ireland has increased as a proportion of non-oil taxes paid in Britain.

Public expenditure in the Province increased rapidly in the 1960s and 1970s relative to Great Britain, but has not increased further, in relative terms, since 1979. By the early 1980s public expenditure per capita was about 25% above the level in Great Britain.

A detailed study of each public service revealed that this high level of expenditure was justified in terms of Northern Ireland's special 'needs'. 'Expenditure needs' are defined to include the containment of the political troubles.

Although the Province now receives fair treatment under public expenditure programmes in terms of overall spending (in sharp contrast with the position in the 1950s) in accordance with its high special needs, many of the programmes are adjuncts to British policies which are not always appropriate to the unique situation found in Northern Ireland.

The fiscal transfer from Great Britain to Northern Ireland now amounts on average to about £800 per Northern Ireland resident and £4500 per household. This should be regarded as a quite normal transfer from richer regions to poorer regions with high expenditure needs and one which takes place in many advanced countries through the system of public finance.
Four strategic policy options for the future were examined in the light of these research findings and other considerations. The four options were: (i) continuing with present policies; (ii) cutting real wages; (iii) allowing manufacturing industry to decline and expanding the public sector beyond the point justified by relative needs; (iv) a set of proposals for reforming policy aimed at achieving recovery and growth in Northern Ireland’s manufacturing industries.

Publications and Papers


Canning, D. 1985. 'Regional Labour Markets', paper presented to ESRC Conference in Glasgow, June 1985

Other Activities

D. Canning and B. Moore took major parts in an Ulster television programme on the Northern Ireland economy. This included a debate with the Rt Hon Rhodes-Boyson, the minister responsible for Northern Ireland economic development.

URBAN/RURAL SHIFT AND THE EVALUATION OF URBAN AND REGIONAL POLICIES IN BRITAIN

Project member: J. Rhodes
Sponsor: ESRC

This 2-year project which began in May 1985 has three objectives. First, it aims to understand more about the process by which manufacturing firms have been declining faster in large urban areas than in smaller towns and rural areas - a process which has come to be known as the 'urban/rural shift'. We need to know more about its causes, its timing and how far it has been influenced by urban policies, regional policies and by local authority planning policies.

The second objective is to estimate for the first time the impact of urban policy on employment in the conurbations. Until 1977 urban policies sought to encourage the movement of manufacturing industry out of the large cities into New Towns and overspill areas. After 1977 urban policies were sharply reversed in an attempt to regenerate the larger cities, and particularly their inner areas, through such policy instruments as enterprise zones, urban development grants, partnership schemes and Docklands Development Corporations.

The third objective is to devise a new methodology for evaluating the impact of regional policies. The method we first devised in 1973 is still in use but it suffers from important defects because the nature of regional policy has changed radically since 1981, notably in the application of policy to small sub-regions rather than to large standard regions. This change in the thrust of regional policies means that its effects can only be estimated using a method which simultaneously measures the impact of urban policies and 'models' the process of urban/rural shift in relatively small geographical areas.

THE ECONOMIC ROLE OF CITIES IN THE CONTEXT OF CHANGES IN UK ECONOMIC STRUCTURE

Project members: I.G. Begg, B.C. Moore
Sponsor: ESRC

The object of this research is to examine the effects of structural change in the UK economy on economic activity in the cities of Great Britain. One hundred cities, comprising all urban areas down to a population size of approximately 80,000, are distinguished. In the first stage of the research, the main emphasis has been on constructing a database of employment by industry in each city. The source of these data is records of employment by employment exchange area obtained from the Department of Employment on
magnetic tapes. Software to access and manipulate this data has been written, enabling flexible definitions of industry groups and cities to be specified. Data for 1959, obtained in photostat form, have been coded and are currently being added to the database.

The first output of the research is a paper setting out a typology of UK cities according to economic characteristics. This is to be published in Spring 1986 as a chapter in the second volume of a series edited by V. Hausner, reporting the results of the 'Inner City in Context' research initiative of the ESRC.

The full results of the project will be published as the final volume in the series.

Two other papers, to be published in the first volume of the series, were produced as a result of an earlier project on inner cities. These are:

Begg, I.G. and Eversley, D.C.E. 'Deprivation in the Inner City: Social Indicators from the 1981 Census'

Begg, I.G., Moore, B.C. and Rhodes, J. 'Economic and social changes in urban Britain and the inner cities'

have been discussed with the UNSO. As a result, some additional material will be sent, and used to improve the database. Extracts from the data have been used by a working group of FERG as source material for a study of Europe in the World Economy, to be presented at a conference in Brussels in January 1986.

Publications and Papers

Begg, I.G. 'European trade, and Europe in the World Economy', (DAE mimeo)

COMPANY FINANCE AND PERFORMANCE

Project members: A.W. Goudie, G. Meeks and J.G. Meeks
Associate member: Dr L. Slater
Sponsors: Esmée Fairbairn Charitable Trust, ESRC and Leverhulme Trust

The project has three parts. First, it is developing a computerised databank of standardised financial accounts for UK companies. Second, it is using these accounts in conjunction with the Cambridge Growth Project's disaggregated macroeconomic model of the UK economy to model company behaviour. And third, it is using the resulting models for forecasting and policy evaluation.

Data

A major update was completed of the Cambridge DTI Databank of Companies' Financial Accounts. This now spans the years 1948-83 and contains up to 200 variables for up to 2500 companies in each year. Copies of the databank have been supplied during the year or are currently being supplied to six Universities and Polytechnics in Britain, to three overseas, and to the European Commission. An extensive new manual has been written (11 below); a paper discussing the general use of such statistics has been prepared (2); and a book based on the databank is in draft (3).
Models
The main modelling, of the top 100 companies and of a sample of falling companies, has been completed. Four papers describing the modelling framework and its applications have been published or prepared during the year ((4), (5), (6) and (7)).

Policy evaluation
The main statistical exercises we had planned concerning the link between government policy and company failure were completed during the year (some initial results were presented at a seminar (8)): the main work of the next year will be devoted to writing up these results. A paper on the remaining topic within our project proposal, rescue policy, was also prepared during the year (9).

Publications and Papers

(2) 'Disaggregating the company sector', G. Meeks, paper to be presented at the 1983 Statistics Users Conference and to be published by the Bank of England, 1986


(5) 'The company sector', A.W. Goudie and G. Meeks, forthcoming in Barker and Peterson (eds), The Cambridge Multisectoral Model, CUP

(6) 'Disaggregated modelling of the company sector', A.W. Goudie and G. Meeks, discussion paper presented to the ESRC Macroeconomic Modelling seminar at LSE, November 1984

(7) 'Multiple discriminant analysis of company failure', A.W. Goudie, working paper


(9) 'Rescue policy', A.W. Goudie, G. Meeks and J.G. Meeks, paper presented to the Public Policy Centre, 1985


COMPANY FAILURE AND RESCUE POLICY
Project members: A.W. Goudie, G. Meeks, J.G. Meeks
Sponsor: Leverhulme Trust

Estimating a multiple discriminant model of company failure for larger listed companies
A substantial part of the modelling work has now been completed and written up in paper (1) (see below). One of the initial aims - to stratify the sample by industry - is likely not to be as worthwhile as we had hoped because few industries within the 'larger listed' sample record sufficiently large numbers of failures for adequate modelling. However, the industry dimension and the influence of size are being explored for a recent sample of companies analysed by the Department of Trade and Industry which includes many small and unlisted firms.

Developing a disaggregated macroeconomic model of companies' finances
Development work has continued through the year. A paper (2) (see below) reporting some features of the model was published during the year; and a further paper (3) reporting work supported by the Trust has been accepted for publication. One aspect of the planned research which has accounted for a good deal of work, the modelling of financial influences on the investment decision, has produced rather negative results as far as the analysis of failure is concerned and will not have the role we had planned for it in the overall model of failure. However, the negative results may be written up and published for their intrinsic interest.
Integrating the model of potential failure with the disaggregated macroeconomic model of companies finances.
This work has been completed and the substantial benefits arising from incorporating the macroeconomic model in predicting failure have been documented in paper (1) and in two discussion papers ((4) and (5)) presented during the year.

Simulating the effect on the failure rate of changes in macroeconomic variables.
The first simulation exercises were completed during the year and reported in papers (4) and (5). Because the early results have proved so interesting we plan to extend this part of the analysis somewhat beyond the original proposal by conducting a detailed study of the effects on the failure rates of the rapid appreciation of the pound in the late seventies.

Analysing rescue policy using the framework developed in the earlier sections.
This work is still at an early stage; but a paper (6) outlining the main issues has been drafted during the year.

Project Papers

(1) 'Multiple discriminant analysis of company failure', A.W. Goudie, working paper.
(3) 'The company sector', A.W. Goudie and G. Meeks, forthcoming in Barker and Peterson (eds), The Cambridge Multisectoral Dynamic Model, CUP.
(5) 'Disaggregated modelling of the company sector', A.W. Goudie and G. Meeks, discussion paper presented to the Economic and Social Research Council Macroeconomic Modelling Seminar at London School of Economics.

(6) 'Rescue policy', A.W. Goudie, G. Meeks and J.G. Meeks, discussion paper prepared for a meeting of the Social Sciences Research Trust at the London School of Economics.

Other Papers by Project Members


STAGFLATION: A MACROECONOMIC POLICY TO RECONCILE FULL EMPLOYMENT AND PRICE STABILITY


Sponsor: ESRC

The aim of this Project is to investigate the feasibility of economic policies allowing full employment and non-inflationary growth in national income. This requires both the study of wage fixing policies and the study of issues in the design of fiscal and monetary policies for demand management.

Wage-fixing

A book on this work entitled Stagflation Volume I: Wage Fixing was published by Allen and Unwin in 1982. James Meade has continued to lecture and write on this subject, and has completed a book on wage fixing in capitalist, profit-sharing and labour-managed economies.
Demand Management

Stagflation Volume 2: Demand Management was published in 1983. In it policies were described which used fiscal policy to keep money national income on its target path, exchange rate control through official intervention to manage the balance of payments current account, and monetary policy to keep the real rate of interest constant.

A major shortcoming of that exercise was a refusal properly to consider the effects of monetary policy. The reason for this was the absence of any information about the effects of relative expected yields on the international flow of funds. Work has continued to be directed towards remediying this deficiency.

Recent Work on Wage-fixing

James Meade has completed a book manuscript entitled imperfect Competition and the Choice of Industrial Structure to be published by George Allen and Unwin. This book contains an analysis and development of certain ideas first put forward by Professor Martin Weitzman in the Economic Journal. Its purpose is to examine how, within the framework of a steady demand management policy, the choice between different forms of business organisation may influence the relationship between employment and rates of pay. This relationship is studied for the two types of economic organisation described by Professor Weitzman, namely

(i) the capitalist wage economy, and

(ii) the capitalist share economy, and also for two further types of organisation not considered by Professor Weitzman, viz.

(iii) non-discriminating labour cooperatives, and

(iv) discriminating labour-capital partnerships.

Recent Work on Policy Analysis

The aim of the research has been to model policy formation in various expectational regimes including that of rational expectations. In order to do this it has proved necessary to model three capital markets, the foreign exchanges and the stock exchange and gilt-edged markets.

Capital markets: The portfolio allocation model of international capital markets, described by Meade, Vines and Weale (1984) has been estimated. A satisfactory estimate for the response of portfolio allocation by the domestic private sector to rationally expected excess yields has been obtained. However, the estimated response is shown to be sensitive to the definition of wealth. For example, the results obtained if one includes all land owned by the private sector under wealth are more satisfactory than those arising if land is excluded. This probably explains why less success has been achieved in investigating portfolio allocation by the rest of the world: the wealth term used here is inevitably a proxy.

The stock exchange (valuation ratio of private capital) and gilt markets have been modelled on the assumption that down to a risk on premium, stocks and shares are perfect substitutes for Treasury bills. The investment equations of the National Institute model have been replaced by one which is sensitive to the valuation ratio. The consumption function (see also below) has at present been replaced by one in which consumption takes place out of income and wealth. Thus both investment and consumption are sensitive to capital market movements. A description of some of the associated dynamic properties is offered by Christodoulakis and Weale (1985).

Expectations: We have developed and implemented methods for designing linear feedback control rules under rational expectations. These methods include a refinement of the method which we have up until now used for the linearisation of non-linear models and implementation of the well-known Blanchard-Kahn method on the
resulting linear model. We then utilize the linear rational-expectations solution to 'guide' the solution of the full non-linear model. So far we have investigated the behaviour of two jumping variables: the stock market valuation ratio and the long-term rate of interest. We plan to have forward-looking consumption function in which the level of consumption itself will be a jumping variable. The policies we are currently analysing emphasise exchange rate stabilisation. Thus this variable is not at present modelled as jumping, although expectations about its behaviour can be assumed rational.

Attention so far has focussed on analysis under rational expectations. But we intend also to investigate policy information under other expectational regimes. We do not expect major difficulties in developing the model above for use with, for example, adaptive or neutral expectations.

The Consumption Function. Any analysis of monetary and fiscal stabilisation should allow for anticipatory behaviour on the part of consumers. Under some circumstances consumers might neutralise at least part of the fiscal control rules implicit in our policy proposals. For example, in the presence of a tax increase they might minimize any reduction in consumption in the knowledge that the control policy would subsequently call for a reversal of the tax increase. Martin Weale has been developing a version of the recent consumption function by Blanchard which would allow us to test this smoothing hypothesis, and would allow us to run our policy exercises on the assumption that consumers possessed fully rational expectations of all future changes in taxation.

The Policy Design. Work is now in hand to apply the developments outlined above to the design of actual policy proposals. The policy objective is to steer the money national income and the investment-to-output ratio towards chosen targets paths. The regime under which policy operates contains also:

(i) a procedure by which the balance of payments is regulated by alternatively implementing interest rate adjustments, intervention, and a 'free floating' exchange rate, and
(ii) different variants of the wage equation displaying the degree, if any, to which wage fixing has been reformed away from the 'standard' type of full indexation.

Preliminary results have been obtained. These show the consequences for policy design under alternative assumptions, e.g.

- an ability to borrow very large sums from abroad
- an ability successfully to reform wage fixing
- a deliberate manipulation of the exchange rate to fine-tune control of money (in the manner of the present government).

The outcomes are being compared with what would happen if none of these above three avenues for action were available.

Publications and Papers


Papers


Christodouklakis, N. and M.R. Weale (1985) 'The Stock Exchange in a Macroeconomic Model', presented to a seminar at Churchill College


Weale, M.R. (1985c) 'Wealth and the Consumption Function', Department of Applied Economics, mimeo


STUDY OF THE WIDER ECONOMIC EFFECTS OF THE YOUTH TRAINING SCHEME (YTS) AND THE YOUNG WORKERS SCHEME (YWS)

Project members: B.M. Deakin and C.F. Pratten
Sponsor: Department of Employment

The objectives of the research are to study and quantify the economic effects of the YTS and YWS. The YTS is a one-year (in April 1986 to be a two-year) subsidy to provide training and work experience for school leavers. YWS is a £15 per week subsidy to young workers (on condition that the total wage does not exceed £50 per week); it is a sequel to the existing YTS. The research examines the uses made by firms of these two schemes and the various 'transmission' processes by which the subsidies influence (1) transactions between participating firms and their suppliers; (2) costs, prices, output and employment; and (3) profits and investment. The extent to which subsidised employment is substituted for employment which would in the absence of the schemes have taken place is estimated, and evidence is sought of any influence of the schemes upon non-participating firms in the same industry. The more general influence of an increase in the number of young workers with skills and work experience, and the effects of the schemes upon average and relative wages, are also studied. The methods of research include interviews with firms and also the addition of questions to a current interview survey of 'young people in the labour market' which is being conducted by other University teams sponsored by the Manpower Services Commission. The Cambridge Growth Model, which has previously been employed to examine the effects upon the economy of a hypothetical marginal wage subsidy (the results are given in The Economic Journal for December 1983) will be used to explore the longer-term multiplier and other wider economic influences of these two subsidy schemes upon the whole economy.
The central question which the book tries to answer is this: what are the conditions that have to be satisfied in order to achieve a stable international economic order in a highly integrated and continuously changing world economy? The book is divided into five parts: (i) the process of international integration; (ii) the nature and causes of external disequilibria (with a special emphasis on ‘fundamental disequilibria’); (iii) the effect of changes in countries’ international competitiveness over the last century and a half on the character of their commercial policies; (iv) special problems created for the international economic system by the energy crisis; and (v) the organisation and policies required to achieve a stable international economic order in the 1980s.

Over the past year additional material for the second book, Domestic Policy Options in an Open Economy, has also been gathered.

Publications and Papers


M. Panić: ‘Economic Insularity as a Policy Option in the 1980s’, mimeo

M. Panić: ‘Transnational Enterprise - A viable, Long-Term Form of Industrial Organisation?’ mimeo

Other Activities

Apart from giving a number of talks on British and international economic problems, Dr Panić participated in some of the activities reported in the Twenty Fourth Annual Report. In addition, at the invitation of the European Institute of Public Administration (established by EEC governments) he joined in 1984 their Panels of International Experts on Comparative Government Policies.
The Impact of Import Restrictions in the Inter-War Period

Project members: Professor Lord Kaldor, Michael Kitson, Associate member: John Rhodes, Sponsor: ESRC

This project has aimed to evaluate the impact of import restrictions on the British economy in the inter-war period.

The project consists of three areas of analysis which are nearing completion. First, an evaluation of British economic performance, indicating the dominant role of manufacturing in the recovery of the 1930s. Second, an analysis of trade flows, indicating the relative importance of protection and devaluation in inducing the large fall in manufacturing import propensity. Third, an inter-industry comparison which shows that newly-protected industries had higher growth rates of output, employment and productivity than the non-newly-protected industries.

Some empirical problems have been encountered as a result of the insufficiency or inferior quality of relevant data. Most of the problems have been overcome with the benefit of advice from academics who have specialised in the period (particularly Dr A. Naizels).

The preliminary result of the research formed the basis of two lectures delivered by Kaldor and Kitson to Part II of the Cambridge Economics Tripos. It is intended that the final results will be published as a monograph, although some parts of the research may also be more adequately disseminated through learned journals.

Industrial Structure and Economic Performance: Britain and France in the 1970s

Project member: Dr E.H. Lorenz, Sponsor: ESRC Postdoctoral Fellowship Scheme

The basic aims and methodology of the project are outlined in the 34th Annual Report.

In the Autumn of 1984 a scheduled set of interviews was completed with engineering firms in the East and West Midlands. These interviews were primarily concerned with the impact of investment in numerically controlled machine tools on company organisation. A few firms were investigated in great detail to explore differences in the perspective of personnel with different functional roles in the firms.

During Spring 1985, Dr Lorenz visited the Laboratoire d’Economie et de Sociologie du Travail (LEST), Aix-en-Provence, France. This period was used for background developments in the French debate on new technology and industrial relations, and the role of small firms in the economy.

The visit to LEST was followed by a twelve-week period of fieldwork in Lyons where Dr Lorenz was attached to the Groupe Lyonnais de Sociologie Industrielle (GLYSI) at the Universite de Lyon II. This period was largely devoted to conducting interviews with local engineering firms, exploring such issues as the impact of new technology and the reasons for the increased use of subcontracting by French firms. The subcontracting relationship promises to be a fruitful focus for future research as it is extensively used by the more successful French firms and is comparatively neglected by most British firms.

Publications


Other activities

April 1985: Seminar given at the Department of Economics, University of Modena, Italy on government intervention and industrial structure in the British shipbuilding industry.

This project has aimed to evaluate the effects of government interventions on the British economy in the inter-war period.

RISK, INFORMATION AND QUANTITY SIGNALS IN ECONOMICS

Project members on DAE research staff:

Dr T.S. Worrall

Teaching Officers who participate in the Project:

Dr M.M. Bray
Professor P. Dasgupta
Professor F.H. Hahn
Dr T. Kehoe
Dr D.M.G. Newbery

Associate member:

Dr D. Canning (DAE)

Visitors to the Project:

Professor D. Levine (U.C. California)
Professor R.M. Solow (MIT)

Sponsor:

ESRC

The project's purpose is to investigate both at a fairly general and abstract level and in particular contexts the consequences of 'missing markets', asymmetric information, market dependent information, quantity signals and constraints. The theory which is emerging has strikingly different implications than does the Walrasian one (on which, for instance, much Government and Monetarist policy is based). We have in this last year been increasingly interested in the macro-economic implications of our work. In particular, we have done more on the theory of the labour market, implications of perfect competition for macro-theory and monetary theory. In all of this work the original intention of treating information and quantity signals explicitly has played an important role.

Publications, papers and other activities

Individual members' publications and papers are listed separately. We also plan to publish a volume of essays on our work, designed for the non-technical reader. This will be edited by D. Canning.

Publications:


Activities

'Price Setting Duopoly' (currently being revised), invited paper written and presented at meeting of The Association of University Teachers of Economics in Oxford, March 1985

Board Member of Review of Economic Studies

Publications:


Newbery, D.M.G. Discussion of 'Certainly Equivalent Producers in the Macro-economic Planning of an Oil Economy - the case of Norway', by O. Bjerkholt, to be published in National Resources and the Macroeconomy (ed Meary, P. and van Wijnbergen, S.), for Centre for Economic Policy Research (Conference of June 1985)

Papers, original and revisions

Newbery, D.M.G. 'Wage Rigidity, Implicit Contracts and Economic Efficiency: Are Market Wages too Flexible?' (with J.E. Stiglitz)


Newbery, D.M.G. 'Risk and Trade Policy' (with J.E. Stiglitz), Economic Theory Discussion Paper No. 77, Feb 1983, currently being revised

Newbery, D.M.G. 'Pricing and Taxing Transport Fuels in Developing Countries' (with G.A. Hughes) (Report and first draft of monograph, August 1985)

Activities

Committee Member, ESRC Economic Affairs Committee

Editor, Economic Journal

Editor, Cambridge Energy Series, CUP

Visiting Professor of International Affairs, Woodrow Wilson School, Princeton University, Jan-June 1985

Economic Theory Discussion Papers:
The following discussion papers have been produced in the academic year 1984/85.


THE STUDENT'S T APPROXIMATION IN AR(1) MODELS

Project member: N.E. Savin
Associate member: S.C. Nankervis
Sponsor: ESRC

The aim of the research is to investigate the accuracy of Student's $t$ approximation to the distribution of the $t$ statistic for testing the regression coefficients in an AR(1) model. The accuracy of the approximation is of interest since the approximation is widely used in practice to conduct tests of hypotheses. Two specifications of the model are considered. The first is where the marginal distribution of the initial value of the dependent variable is such that the process is stationary and the second is where the initial value is treated as a known constant. The latter specification is appropriate when the process is nonstationary.

For the first specification the research has established that the distribution of the $t$ statistic has the right shape, but the wrong mean and standard deviation. The results show that Student's $t$ provides an accurate approximation once the statistic is adjusted to have the same mean and standard deviation as Student's $t$. When exogenous variables are present the mean and standard deviation depend on the nuisance parameters including the parameters of the process generating the exogenous variables. For the second specification the research has shown that the distribution of the $t$ statistic depends in a complicated way on the nuisance parameters. The analysis examines some conditions under which the Student's $t$ approximation is satisfactory.

The results of the research have been delivered at various seminars and conferences. These include the Econometric Society European Meeting, Madrid, 1984; Fifth World Congress of the Econometric Society, Boston, 1985; Finite Sample Conference, London, Ontario, 1985.

The following two papers have been submitted to journals for publication:

Nankervis, J.C. and N.E. Savin. The Student's $t$ Approximation in a Stationary First Order Autoregressive Model, accepted by Econometrics subject to revision


TAXING AND PRICING TRANSPORT FUELS IN DEVELOPING COUNTRIES

Project members: Dr G.A. Hughes, Dr D.M.G. Newbery
Sponsor: The World Bank

The objective of this research, which forms part of a larger project, is to formulate guidelines for the design of a set of road user charges in developing countries. This will in turn require the design of a set of taxes on transport and on transport fuels and must take into account the impact of such taxes on the distribution of income across households and on the non-transport use of fuels.

Both the tax impact analysis and road user charges components of the study were delayed by unforeseen difficulties in obtaining essential data on road conditions and traffic volumes in Tunisia, the country chosen for the primary application of the analytical techniques developed in the study. There were additional problems in obtaining, reading and analysing the most recent Input-Output Table for Tunisia. These delays set back the final stage of work on the project by almost a year, since the appropriate empirical material did not become available until the summer of 1985. Since then substantial progress has been made and a draft of most of the monograph which will report the research was completed during July and August. The project will be completed during 1985-86.
Newbery's main task completed during the past year was the reformulation of the theoretical models to calculate the marginal social cost of an extra vehicle transit on various kinds of roads, using the final versions of Road Damage Models developed at the World Bank, which became available in the early part of the year. These were calibrated for Tunisia and a set of road use costs for each type of vehicle and each category of damage and road type computed, and aggregated to give the road use cost by type of vehicle. Since the road user charges are intended to cover all social costs an attempt was made to estimate the contribution of congestion costs to total road user costs.

Transport is both a final consumption good — e.g. private cars, taxis and passenger transport — and an intermediate good, so that it is not entirely straightforward to determine the appropriate manner of recovering road use costs and to establish whether it is desirable to tax transport according to conventional optimal tax criteria. The issues are complicated by the fact that road freight transport relies almost exclusively on diesel oil as a fuel, which is also an important intermediate input into other industries, while private cars tend to use gasoline but can be switched to diesel oil. A model to investigate the desirability of taxes on intermediate inputs has been developed and this will in due course be combined with the model which investigates the impact of fuel taxes on households. Preliminary estimates suggest that the Tunisian system of transport charging has greater logic than might have appeared at first sight, though the system of licence fees could be improved.

One problem which consistently arises in attempting to model the impact of various taxes concerns the importance of substitution effects associated with the tax-induced changes in relative prices. To investigate these further Hughes has extended his model of the effect of fuel taxes in Thailand to encompass all primary sources of energy, using data for 1981-82, and to incorporate substitution between energy and other factors as well as between fuels. The results of these models are specific to the particular circumstances of the countries and sectors examined but they provide a basis for investigating the robustness of conclusions drawn from the simpler models which do not allow for substitution effects.

Publications


G.A. Hughes, 'Fuel Prices, Taxes and the Distribution of Income in Thailand', mimeo, University of Cambridge

G.A. Hughes, 'Substitution Effects and the Impact of Fuel Taxes in Thailand', mimeo, University of Cambridge

G.A. Hughes, and D.M. Newbery, Pricing and Taxing Transport Fuels in Developing Countries, mimeo, University of Cambridge. August 1985 — first draft of monograph reporting the results of the research

D.M. Newbery, The Design of Road User Charges and Transport Taxation in Tunisia, Part I of projected monograph

D.M. Newbery, The Theory of Road Use Costs and Transport Taxation, Part III of projected monograph


D.M. Newbery, On the Desirability of Input Taxes, Economic Letters, forthcoming

Seminars, etc

Papers based on the work of the project were given at seminars/workshops at Cambridge, Dundee, LSE, Warwick and Bangkok.
MONEY AND WELFARE ECONOMICS

Project member: D. Kelsey
Sponsor: ESRC Postdoctoral Fellowship held at Churchill College

Adam Smith and subsequent writers have shown that in a competitive economy the pursuit of self-interest can lead to an outcome which society would view as efficient. Typically such theories are only concerned with those economies in which money does not play an essential role. This project aims to discover whether similar results can be established for an economy in which money has a more significant function.

Papers

1. 'The Economics of Chaos', mimeo

This paper provides a survey of dynamic systems and examines critically how it can be applied to economies.

2. 'The Consumption Function when Labour and Capital Markets are Imperfect', DAE mimeo

This paper examines the consumption function. In this, dynamic programming is used to analyse consumption behaviour in a sequence economy. Evidence suggests that the consumption function has a greater dependence on current income than standard theory would predict. The paper argues that this can be explained by the assumption that unemployment is a Markov process (that is, those employed this month have a greater chance of being employed next month than those currently unemployed). This seems a very reasonable assumption. The aim is to extend this work to provide a theory of consumer behaviour within a model of a sequence economy.

Seminar

January 1985. Seminar given at the Department of Decision Theory, University of Manchester. Title 'The Ostrogorski Paradox'.
On the empirical side I have done some work with Roger Tarling on the causes on employment decline in a particular industry, clothing, between 1950 and 1979. Unlike previous studies we found that increases in the minimum wage rates set by wages councils had played a relatively small part, and that foreign competition, by taking British markets and forcing down domestic producers' prices, was mainly responsible.

Publications and papers

Wage Floors in the Clothing Industry 1950-1979, National Union of Tailors and Garment Workers

A paper entitled: 'Nash Equilibria in Repeated Non-Cooperative games with Many Players' was given at a Churchill Seminar in December 1984

INSTITUTIONAL INVESTMENT, MERGERS AND PUBLIC POLICY
CONGLOMERATE ORGANISATION AND ECONOMIC EFFICIENCY

Teaching Officers directing the project: A. Hughes, A. Singh
Associate members: A.D. Cosh, M.S. Kumar
Sponsor: Office of Fair Trading

These two projects, which are nearing completion, are fully described in the 24th Annual Report. The results are being written up in the form of a book, Institutional Investment, Take-overs and Corporate Performance, which it is hoped will be published in one of the DAE Series.

B SOCIOLGY

REPRODUCTION OF SOCIAL INEQUALITY

Project Members: Dr R.M. Blackburn
Dr K. Prandy
Mr A. Stewart (resigned September 1985)

Associate: Dr L. Miller-Bernal, Wells College, New York
Sponsor: ESRC

This project, which commenced in May 1978, was designed to continue and extend the work of the group, and earlier projects (described in previous Annual Reports) were incorporated.

The project is concerned with the general area of social inequality and social change, addressing a number of problems of theoretical and practical importance. A basic feature in the attempt to move towards a more dynamic model of social stratification which takes account of processes of reproduction of societies.

The research involves a number of themes relating to social stratification, including white-collar unionism, the labour market, careers and perceptions, understandings and evaluations of social inequality.

Publications

Blackburn, R.M., Ideologies of Work', in D. Rose (ed.), Social Stratification and Economic Decline, Hutchinson, forthcoming

Blackburn, R.M., The White-Collar Revolution, University of Tilburg, 1985


THE IMPORTANCE OF SOCIAL STRATIFICATION

Project members:
Dr K. Prandy
Dr R.M. Blackburn

Sponsor: ESRC

The project examines the argument that there is greater coherence in stratification arrangements than has previously been shown to exist. It re-analyses existing data sets to test our contention that relationships are stronger than previously found and evaluate the results, rather than seek to uncover new relationships. The main areas being considered are inter-generational transmission of advantage, marriage, friendship, income, education, home and car ownership and, to a lesser extent, attitudes and beliefs. An essential step has been the production of a more adequate measure of stratification which will be made available for general use. This is continuous, but one aim of the project is to explore its relationship to possible groupings into discrete classes. The project is intended both to benefit those concerned with empirical research, and also to have significant theoretical implications.

The first part of the work involved in this project is the improvement of the Cambridge scale of occupational life-styles. One problem is that certain of the sub-groups of the 1970 OPCS coding scheme (or even whole groups) are not very well represented in our main data set on patterns of interaction. It was therefore decided to add to the latter information on respondents and their friends and spouses from other of our data sets. The most recent of these has good detail, but is relatively small, while two earlier ones give further coverage of the non-skilled and non-manual occupations respectively. In the case of the second of these a certain amount of re-coding was done, while the first called for conversion from an earlier scheme.

This additional work has helped in several cases, as far as numbers are concerned, and in particular has enabled us to deal more adequately with occupations performed by women. Some work on this was referred to in the previous report, and this has been extended. Unfortunately this aspect of our work still suffers from the paucity of numbers in comparison with males, but useful results are nonetheless being derived. For example, at a practical level we have been able to respond to a request for comments on a draft paper prepared by OPCS in relation to possible revisions of their occupational classification scheme in order to deal more effectively with female occupations. On the basis of our work we have been able to provide evidence on the desirability of, for example, sub-dividing the present categories covering clerks, typists and secretaries, and nurses.

Apart from further development of the scale, we have continued our work on patterns of social relationships with which it closely bound up. The connection is most obvious in the case of marriage, where we have worked on the data from the 1979 and 1983 British Election Studies and from the follow-up to the Oxford Occupational Mobility Study. The same datasets as well as our own are also being used to provide information on the patterning of occupational positions between generations, mainly fathers to sons, but also including some cases of fathers to daughters (for female respondents), and fathers-in-law to sons-in-law. In the analysis of these data we are trying to develop a model of stratification encompassing both inter-generational transmission of position and choice of marriage partner. The results are in line with what we expected. That is, although we are not producing new and different results from existing datasets, we are using them to show clearer patterns. However we believe that this new degree of clarity will itself be of considerable interest.

Although the social relationships aspect of stratification is the major concern of the project, we have also extended the examination of the utility of the scale into other areas. Given the datasets that we are using, voting is an obvious one, but we cannot claim that our work throws a bright new light on what most recent studies have shown to be a rather murky area, the relation of voting behaviour to
stratification. We have been more successful with income, but we have yet to carry out analyses on other aspects of social experience.

**Publications and Papers**

K. Prandy, Similarities of life-style and occupations of women, in R. Crompton and M. Mann (eds), Gender and Stratification, Polity Press, forthcoming. This paper was also presented at a meeting of the Seminar group on 'Women and the Census' at the City University, London, June 1985.


**SOCIAL IDENTITY AND THE UNDERSTANDING OF ECONOMIC CHANGE IN GEOGRAPHICAL CONTEXT**

**Project members:** Dr R.M. Blackburn

Dr K. Prandy

D. Lovatt

**Sponsor:** ESRC

This research project is concerned with the ways in which economic processes, especially processes of change, are perceived and understood. The relationships between social experience and the ways in which people perceive and interpret economic processes are being investigated among a sample of men and women of diverse stratification position and ethnicity.

A sample of 280 respondents has been interviewed. The sample was designed to cover the full range of occupational experience, and was stratified by gender and ethnicity. The operation of stratification processes meant that, as expected, occupational experience differed by stratum, non-white women in professional and managerial work being particularly rare. To overcome the problem of non-English speaking Asian respondents, the project was successful in recruiting a multi-lingual Indian interviewer, and some of the interviews were conducted in one of five languages which she spoke — Bengali, Punjabi, Hindi, Gujarati, and Urdu.

In research, social identity is conceptualised as a complex process of perceptions, cognitions, and evaluations in relation to issues and their salience in the structure of personal experience. Each respondent has been asked a range of attitudinal questions designed to measure these aspects of social identity in relation to four issues:

1. Occupational differentiation between men and women
2. Occupational differentiation between white and non-white employees
3. The distribution of wage income between occupational tasks
4. The causes of unemployment

It is a basic argument of the research that social identity varies with respect to the structure of social experience. The first three of the issues noted above are designed to measure identity in relation to issues which bear directly on the three aspects of social differentiation. In contrast, it is suggested that the experience of living in a society characterised by large-scale unemployment is a general issue which is likely to impinge, in one way or another, on the identity of all members of our sample.

An important, if secondary, aspect of the data collected during the survey was the recording of detailed work histories. This data is used to help to assess the ways in which social inequalities are reproduced under conditions of rapid economic change.
PUBLICATIONS

DAE OCCASIONAL PAPERS

This series, published for the Department by the Cambridge University Press, is designed for the rapid publication of research results.

One new title appeared in the Series this year. Growth, Acquisition and Investment, by Manmohan S. Kumar, was published in January 1985.

Company Finance and Performance: aggregated financial accounts for individual British Industries, by A. Goudie and G. Meeks, is being published by the Department early in 1986.

Several books are being prepared for the series (the titles are provisional):

Industrial Structure and International Competition (M. Landesmann)

The Impact of UK Fiscal Policy on the Northern Ireland Labour Market (B. Moore, J. Rhodes and D. Canning)

Institutional Investment, Take-overs and Corporate Performance (A. Cosk, A. Hughes, M.S. Kumar and A. Singh)

SOCIAL CHANGE AND ECONOMIC LIFE

Members of the Sociology group are taking part in this interdisciplinary project. For details see above, pp 18-19.

OTHER ACTIVITIES OF THE SOCIOLOGY GROUP

The group has maintained its association with colleagues in other institutions. In particular Mr J. Holmwood of the University of Edinburgh and Dr L. Miller-Bernal of Wells College have collaborated in our work. Dr Malcolm Walters and Dr Graham Lowe were visitors to the Department.

As in previous years the group was host to the ESRC Social Stratification Seminar.

Dr Blackburn spent the year as a Fellow at the Netherlands Institute for Advanced Study (NIAS) in Wassenaar.

The monograph series Cambridge Studies in Sociology is edited by the group.

The group continued to organise its own seminar series.
III OTHER ACTIVITIES

DAE LIBRARY

During the period October 1984 to September 1985 the Department received 154 periodicals; 14 of these were in exchange for the Department's Reprint Series and 50 were gifts, the remainder being purchased. The library has acquired 10 books, 982 pamphlets and 207 government publications.

COMPUTING

The Department continued to rely on the University Computing Service for most of its computing needs, although some programs have now been successfully implemented on IBM personal computers.

Iain Begg has succeeded William Peterson as Department representative to the Computing Service.

TEACHING FOR THE UNIVERSITY

During the year members of the Research Staff gave lectures for undergraduate examination courses in the following areas:

- Applied macro-economics
- Comparative industrial relations
- Current problems of the world economy
- Industrial management
- Industrial relations and the economics of the labour market
- International economics
- International economic integration
International organisation, multinational enterprise and international trade

Statistical methods and applications

The post-war international monetary system

The state, the family and the labour market

Theories of production and technical changes

They gave Seminars for Research Students in the following areas:

Labour economics

International economic integration

Philosophical issues in economics

Principles of applied economics

Studies of management and structure, performance and prospects for UK industries

They also supervised and examined post-graduate students for the degree of M.Phil, and for the degree of Ph.D this and other Universities.

TEACHING FOR COLLEGES

Nearly all members of the Research Staff undertook undergraduate supervision teaching for the Colleges. Twelve members were Directors of Studies in Economics and two in Social and Political Sciences.

SERVICE ON UNIVERSITY COMMITTEES

Members of the Department's research staff served on the following University Committees during the year:

The Committee of Management of the Department, and its Appointments Sub-Committee

The Faculty Board of Economics and Politics, and its sub-committees dealing with Appointments; Lecture List and Future Needs; Admissions

EARIE CONFERENCE

The Twelfth Annual Conference of the European Association for Research in Industrial Economics was sponsored jointly by the Department and Acorn Computers. The Conference, which was organised by the DAE, took place 11-13 September, 1985. About 225 economists from Europe, North America and Australia participated. The Conference took place at a time when far-reaching changes are taking place both in the industrial map of the world economy and, for distinct but not entirely unrelated reasons, in the subject of industrial economics itself. These events have helped to place industrial economics at the heart of current concerns of the economics profession in general and of economic policy makers in particular. The DAE has many of its research staff working in this area.

A little over fifty papers were selected for presentation at the conference. The keynote address (sponsored by the Master and Fellows of St. John's College) was given by Professor Harold Demsetz of the University of California, Los Angeles, on 'The New Industrial Organisation'. Apart from those Cambridge economists who gave papers, several members of the Department and teaching officers of the Faculty of Economics took an active part in the conference as chairmen of sessions and as commentators on papers. The Chairman
of the Programme Committee was Dr A. Singh. The local organising committee comprised, in addition, Dr B. Lyons, Dr A.W. Peterson, Dr A.D. Cosh and Mr I. Beeg. Mrs K.M. Wilson acted as Secretary to the Conference.

The state, the family and the consumer market

IV FINANCE

During the financial year (1 August 1984 to 31 July 1985) the Department's annual expenditure was £748,608 compared with £677,076 in 1983/84. 89.0% of the expenditure was on stipends, salaries and wages.

The University Grant rose from £237,889 in 1983/84 to £251,001 in 1984/85, an increase of £13,112. Expenditure went up by £71,532.

The following are the principal new or additional payments by outside bodies which have been accepted during the year for payment over various periods:

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic and Social Research Council</td>
<td>£450,286</td>
</tr>
<tr>
<td>Department of Employment</td>
<td>£26,218</td>
</tr>
</tbody>
</table>

V STAFF

RESEARCH STAFF

DIRECTOR
Professor W.A.H. Godley, MA (Cantab), MA (Oxon), Fellow of King's College

ASSISTANT
B.M. Deakin, MA (Cantab), MA (Oxon), Fellow of Magdalene College

DIRECTOR

SENIOR RESEARCH OFFICERS

Swami Amrit Terry (T.S. Barker), MA (Edinburgh), MA PhD (Cantab), Downing College

R.M. Blackburn, MA (Cantab), PhD (Liverpool), Fellow Clare of College, Head of Sociological Research

V.K. Boroah, MA (Bombay), MA (Southampton), MA (Cantab), PhD (Southampton), Fellow of Queens' College

K.J. Coutts, MA (Cantab), Fellow of Selwyn College

T.F. Cripps, BA (Cantab), Fellow of Darwin College

G.H. Gudgin, BA (London), BA (Open University), MA (Cantab), PhD (Leicester)

B.C. Moore, MA (Cantab), MSc (Econ) (London), Fellow of Downing College

M. Panić, MA (Cantab), MA (Econ) (Sheffield), PhD (Cantab) (under Special Regulations), Fellow of Selwyn College

A.W.A. Peterson, MA (Cantab), MA (Essex), PhD (Cantab), Fellow of Christ's College

K. Prundy, BA (Open University), BSc (Econ) (London), MA (Cantab), PhD (Liverpool), Fellow of Fitzwilliam College

C.F. Pratten, BA (Bristol), MA (Cantab), Fellow of Trinity Hall

J. Rhodes, BA (Liverpool), MA (Cantab), Fellow of Wolfson College

A. Stewart, MA (Cantab), BSc (Econ) (London), Emmanuel College

R.J. Tarling, MA (Cantab), Fellow of St. Catharine's College
RESEARCH ASSOCIATES

Dr A.D. Cosh, Department of Engineering, Fellow of Queens' College

Mrs C. Craig
Professor P. Dasgupta, Faculty of Economics and Politics

Dr C. Fraser, Social and Political Sciences, Fellow Churchill College

Professor F.H. Hahn, Faculty of Economics and Politics, Fellow of Churchill College

Mr A. Hughes, Faculty of Economics and Politics, Fellow of Sidney Sussex College

Dr G. Hughes, Faculty of Economics and Politics, Fellow of Churchill College

Mr R. Jobling, Faculty of Economics and Politics, Fellow of St. John's College

Professor the Lord Kaldor, Fellow of King's College

Dr T.J. Kehoe, Massachusetts Institute of Technology

Mr T. Lawson, Faculty of Economics and Politics

Mrs C. Marsh, Social and Political Sciences, Fellow of Newnham College

Professor J. Meade, Fellow of Christ's College

Dr B. McCormick, University of Southampton

Dr G. Meeks, Faculty of Economics and Politics, Queens' College

Dr J.G. Meeks, Fellow of Robinson College

Dr D. Newbery, Faculty of Economics and Politics, Fellow of Churchill College

Dr P. Nolan, Faculty of Economics and Politics, Fellow of Jesus College

Dr M.H. Pesaran, Faculty of Economics and Politics, Fellow of Trinity College

Mr P. Petit, CEPREMAP, Paris

D.A. Vines, BA (Melbourne), MA (Cantab), Fellow of Pembroke College

T.S. Ward, BA (Wales), MA (Cantab), MA (Econ) (Manchester), Fellow of Fitzwilliam College

S.F. Wilkinson, MA (Cantab), Fellow of Girton College

RESEARCH OFFICERS

I.G. Begg, BA (Strathclyde), MA (Cantab), Darwin College

N.M. Christodoulakis, PhD (Cantab)

A.W. Goudie, MA (Cantab), Fellow of Robinson College

M.S. Kumar, PhD (Cantab), Fellow of Sidney Sussex College

M.A. Landesmann, MA (Vienna), Fellow of Girton College

R.G. Lewney, BA (Cantab), MA (Amherst)

D. Lovatt, BA (Sussex), M Phil (London)

R.G. Pierse, BA (Oxon)

J.C. Rubery, MA (Cantab), Fellow of New Hall

M.R. Weale, MA (Cantab), Fellow of Clare College

T.S. Worral, BA (Econ) (Liverpool), MA (Econ) Essex, PhD (Econ) (Liverpool)

JUNIOR RESEARCH OFFICERS

M. Kitson, BA (Cantab)

A.J. Snell, BSc (Econ) (Hull)

POST-DOCTORAL FELLOWS

D.J.H. Canning, BA (Belfast), PhD (Cantab), Pembroke College

E.H. Lorenz, MA (Berkeley), PhD (Cantab)

PUBLICATIONS SECRETARY

Mrs A. Newton, MA (Cantab)
Dr N.E. Savin, Faculty of Economics and Politics, Fellow of Trinity College
Dr A. Singh, Faculty of Economics and Politics, Fellow of Queens' College
Professor Sir Richard Stone, Fellow of King's College

VISITING SCHOLARS, OCTOBER 1984 - SEPTEMBER 1985

Dr P. Auerbach, Kingston Polytechnic
Professor N.M. Bedford, University of Illinois at Urban-Champaign, USA
Dr L. Benebas, Ministry of Economics and Finance, Madrid, Spain
Mrs V.K. Borooah, University of Southampton
Professor A. Del Monte, University of Naples, Italy
Mr H. Giuliani-Cury, Central Bank of the Dominican Republic
Professor G.S. Lowe, University of Alberta, Canada
Dr L. Miller-Bernal, Wells College, Aurora, New York, USA
Mr F. Pellerano, Central Bank of the Dominican Republic
Dr H. Reynolds, University of Texas at Dallas, USA
Dr D. Schiffiro, University of Messina, Sicily
Dr G. Serafetinidis, Panteios School of Political Science, Athens, Greece
Mr R.S. Volpato, University of Tasmania
Dr M.J. Waters, University of Tasmania
Mr E. Wolleb, University of Palermo, Sicily

ASSISTANT STAFF, OCTOBER 1984 - SEPTEMBER 1985

Mrs I. Bailey
Mrs M.J. Barnett
Mr E.D. Bougourd
Ms M.V. Clark
Mrs R. Coe
Miss D.M. Day
Mrs S.L. Douglas
Ms T.C. Gurner
Miss C.A. Hudson

Mrs M. Martin
Miss A. Mason
Miss S. Metcalfe
Mrs S. Moore
Mrs O.E. Peppercorn
Miss S.D. Seal
Mrs E.L. Scott
Mrs B.P. Watson
Mrs K.M. Wilson