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UNIVERSITY OF CAMBRIDGE

DEPARTMENT OF APPLIED ECONOMICS

J. WILKINSON

COE (Assistant Staff Observer)

T W E N T Y S E C O N D R E P O R T

SIBSON-TURNBULL (Secretary)

ACTIVITIES IN THE PERIOD

OCTOBER 1981 TO SEPTEMBER 1982



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Committee of Management, January 1982

University of Cambridge

DEPARTMENT OF APPLIED ECONOMICS

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TWENTYSECOND REPORT

S. SIMON-TURNBULL (Secretary)

ACTIVITIES IN THE PERIOD

OCTOBER 1981 TO SEPTEMBER 1982

University of Cambridge
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TWENTY SECOND REPORT
ACTIVITIES IN THE PERIOD
OCTOBER 1981 TO SEPTEMBER 1982

Committee of Management, January 1982

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R. E. WELLD (Chairman)

R. M. BLACKBURN

R. M. DEAKIN (Assistant Director)

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A. SINGH

S. F. WILKINSON

R. COE (Assistant Staff Observer)

B. SISON-TURNBULL (Secretary)

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TWENTYSECOND REPORT

OF THE

DEPARTMENT OF APPLIED ECONOMICS

(covering the year October 1981 to September 1982)

I RESEARCH ACTIVITIES

This section outlines the work done in 1981-82 on the research projects being conducted in the Department.

A. ECONOMICS

GROWTH AND FLUCTUATIONS IN THE BRITISH ECONOMY:

PROJECTIONS FOR PLANNING

Membership of the project

The project is under the direction of Professor Sir Richard Stone and Dr. Barker.

Research officers: Terry Barker
Vani Borooah
Michael Landesmann
Robert Owen (who left in January 1982)
William Peterson
Rick van der Ploeg
Martin Weale

Research associates: Tony Lawson, Faculty of Economics & Politics.
David Livesey, Department of Engineering,
University of Cambridge.
Geoffrey Meeks, Secretary to the Degree
Committee, Faculty of Economics
and Politics.
Andrew Goudie, Junior Research Officer.
Hashem Pesaran, Faculty of Economics & Politics.

SSRC Senior Research Fellow: Peter Crossman, James Cook University of North
Queensland, Australia.

Visitors to the Project: J.F. Qvigstad, Ministry of Finance, Oslo, Norway.
A. Cappelen, Central Bureau of Statistics, Oslo
Norway.

Dr. N.R. Norman, Department of Economics,
University of Melbourne, Australia.

Funding

The present basis for funding the project is that 60% of the direct costs are financed by the SSRC whilst the remainder comes from Cambridge Econometrics, a company set up to provide a commercial service using the project's research, and other sources.

The organisation of the research

The research activity of the project is organised around a model of the British economy which is designed to simulate the operation of the British economy for the purpose of economic management and control. Each member of the project is expected to contribute towards the improvement of existing relationships in the model, the introduction of 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.

Terry Barker	Co-ordination of research; imports, complete model simulations
Martin Weale	Industrial pricing functions
Vani Borooah	Financial flows in MDM; income and expenditure accounts; complete model simulations
Michael Landesmann	Investment and export functions
Robert Owen	Exchange rates and financial flows with the rest of the world.
William Peterson	Investment and employment functions; energy submodel; complete model simulations
Rich van der Ploeg	Control applications of the model; complete model simulations; condensed form solution packages.

Progress of the research

Considerable progress was made on the data base of the model. A full set of accounts was constructed for 1975 following as far as possible the conventions of the UN's System of National Accounts (1968), using data from the input-output tables, the CSO's Production Accounts and National Income and Expenditure. The methods and results have been discussed with the CSO. The new version of the model, MDM5, was amended to take account of the new treatment. Future work includes the

balancing of the 1975 accounts to remove residual errors and the extension of the accounts to cover other years.

The estimate of equations for MDM5 was completed and the whole model solved on the software package IDIOM. This work is still proceeding. The main additional relationships included in MDM5 are the wage equation for individual industries, export equations for invisibles and benefit equations for certain social security payments.

The project applied for future financial support to the SSRC Consortium on Macroeconomic Modelling in December 1981. This was given for two years in the first instance from October 1983. Since the Consortium is also setting up a bureau which will compare models, the project has put more resources into making the model more accessible to outside users. A users' manual for MDM5 has been prepared.

The main applications of the model to questions of economic policy during the year have been reported in conference papers and publications. The main ones are: application of optimising techniques; and the exploration of alternative strategies for higher employment via protection or investment and incomes policies.

Other activities

The project continued the development of the software packages IDIOM and MREG for solving and estimating large scale models. The project has run a full programme of seminars and workshops during term in Cambridge and in addition project members have given seminars to other groups in Cambridge and elsewhere. Members of the project have also given a number of lectures to undergraduates during the year and have taught for M. Phil courses.

Publications, papers and conferences

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

Barker, Terry (1981) An international comparison of energy resources and prices. De-industrialisation, North Sea oil and an investment strategy for the United Kingdom. Policy issues in energy-rich economies. Chapters 2, 8 and 12 in Oil or Industry? Energy, Industrialisation and Economic Policy: Issues in Canada, Mexico, Netherlands, Norway and the United Kingdom. Academic Press, November

Barker, Terry (1981) Projections of economic structure using a large-scale econometric model. Futures, December, pp.458-467

Barker, Terry (1981) A review of models and data in the Norwegian systems of economic planning. Artikler 131, Central Bureau of Statistics, Oslo, Norway

Barker, Terry (1982) Long-term recovery: a return to full employment? Lloyds Bank Review, No. 143, January, pp.19-35

Barker, Terry (1982) Oil depletion policy. Minutes of Evidence taken before the Select Committee on Energy, House of Commons, HMSO

Barker, Terry and Vladimiro Brailovsky (editors) (1981) Oil or Industry? Energy, Industrialisation and Economic Policy: Issues in Canada, Mexico, Netherlands, Norway and the United Kingdom. Academic Press, November

Barker, Terry, William Peterson and Alan Winters (forthcoming) The Cambridge multisectoral dynamic model: description and analysis. To be published in a volume edited by E. Fontela. ASEPELT

Barker, Terry, William Peterson and Alan Winters (forthcoming) IDIOM - an International Dynamic Input-Output Model. To be published in a volume of papers from the Seventh International Input-Output Conference edited by UNIDO

Borooah, V.K. and F. van der Ploeg (1982) The changing criteria of economic success: performance and popularity in British politics. The Manchester School, Vol. XLX, No. 1, pp.61-78

Borooah, V.K. and F. van der Ploeg (1982) British government popularity and economic performance: a comment. Economic Journal, Vol. 92, No. 366, pp. 405-410

Borooah, V.K. and F. van der Ploeg (1982) Economic conditions, class and voter behaviour. Scottish Journal of Political Economy, Vol. 29, No. 2, pp. 206-214

Borooah, V.K. and F. van der Ploeg (forthcoming) Analysis of the Cambridge multisectoral dynamic model. In J.J. Sztaudynger (ed). Problems of Building and Estimating Large Econometric Models, North-Holland, Amsterdam

Borooah, V.K. and S.P. Chakravarty (forthcoming) An experiment in forecasting using the Kalman Filter. In J.J. Sztaudynger (ed.) Problems of Building and Estimating Large Econometric Models, North-Holland, Amsterdam

Landesmann, M. and C. Karsch (forthcoming) The Development of Vienna's Industrial Base (manuscript for a book to be published in Vienna: in German, completed December 1980)

Lawson, T. (1981) Keynesian model building and the rational expectations critique. Cambridge Journal of Economics, December 1981

Lawson, T. (1981) A rational modelling procedure and the forecasting of input-output coefficients. In Economics of Planning

Lawson, T. (1982) Paternalism and labour market segmentation theory. In F. Wilkinson (ed.) Dynamics of Labour Market Segmentation, Academic Press

Lawson, T. (1983) On the stability of the inter-industry structure of earnings in the UK: 1954-1978. In Cambridge Journal of Economics Vol. 6 no 3, September

Peterson, A.W.A. (1981) Capital goods and technical change: some theoretical problems. In T. Puu and S. Wibe (eds.), Technical Progress, Macmillan

Peterson, William, Terry Barker and Rick Van der Ploeg (forthcoming) Software support for multisectoral dynamic models of national economies. Journal of Economic Dynamics and Control

Ploeg, F. van der (1982) Reliability and the adjustment of sequences of large economic accounting matrices. Journal of the Royal Statistical Society, Series (A), Vol. 145, Part 2, pp. 169-194

Ploeg, F. van der (1982) The industrial implications of an optimal reflationary mix for the British economy. Applied Economics, Vol. 14, No. 4, pp. 355-373

Ploeg, F. van der (1982) Medium-term planning with a multisectoral dynamic model of the British economy, International Journal of Systems Science, Vol. 13, No. 1, pp. 57-71

Ploeg, F. van der (forthcoming) Government policy, real wage resistance the resolution of conflict. European Economic Review, Vol. 19, No 3

Ploeg, F. van der (forthcoming) Control of medium-term dynamic econometric models. Transactions of the Institute of Measurement and Control

Ploeg, F. van der and M.R. Weale (1982) Conflicts over North Sea oil profits and macro-economic policy. In R.F. Drenick and F. Kozin (eds.) System Modelling and Optimization, Springer-Verlag

Stone, J.R.N. (1982) Working with what we have: how can existing data be used in the construction and analysis of socio-demographic matrices?

Stone, J.R.N. (1982) How Accurate are the British National Accounts?

Stone, J.R.N. (1982) Balancing the National Accounts. Ivor Pearce Conference, University of Southampton, 5-7 January 1982

Weale, Martin (1981) (with James Meade and David Vines) A new financial strategy. Financial Times, 8th December

Weale, Martin (1982) (with Vince Cable) Trade and aid policy analysis: use of the Cambridge Growth Project model. Overseas Development Institute Review, No. 1, 1982

Weale, Martin (1982) Deflators in input-output tables. In Smyshlaev (ed.) Proceedings of the Input-Output Task Force Meeting, IIASA, 23rd-25th September 1982

The following papers have been presented at conferences during the year.

Cambridge Econometrics Conference on Energy in the British Economy, London, October 1981

Vani Borooah The structure of the Cambridge MDM

William Peterson Forecasting methods for industrial energy demand

Terry Barker The economic consequences of North Sea oil

The Royal Statistical Society Conference on Energy Statistics, London, November 1981

William Peterson The perspective of an economic modeller

Third Hungarian Conference on Input-Output Techniques, Hevia, Hungary, November 1981

Michael Landesmann Industrial structures and competitive performance in the EEC

Symposium on Long-Term Economic Cycles: Their Causes and Consequences, London, December 1981

Rick van der Ploeg Control of medium-term dynamic econometric models

VIIIth Conference on the Problems of Building and Estimating Large Models, Lodz, Poland, December 1981

Tony Lawson A rational modelling procedure and the forecasting of input-output coefficients

Cambridge Growth Project/Cambridge Econometrics Conference on Alternative Strategies for Industry and the Economy, Jesus College, Cambridge, June/July 1982

William Peterson MDM5: an overview

Vani Borooah The structure of MDM

Peter Crossman Input-Output in MDM

Terry Barker Equations and classifications in MDM 51

Tony Lawson Is the inter-industry structure of earnings stable?

Irwin Fairclough How to interpret model results
and Martin Weale

Vani Borooah Consumers' expenditure in MDM5

William Peterson Employment and productivity

Irwin Fairclough Present policies
and William Peterson

Terry Barker Higher employment through protection

Jim Cunningham and Higher employment through investment and
Michael Landesmann incomes policies

Terry Barker A summary of the alternative policy projections UK
1984-90

The 1982 Annual Meeting of Dutch Economists, Amsterdam, Holland, September 1982

Rich van der Ploeg Disposable income, unemployment, inflation and state spending in a dynamic political-economic model

Meeting of International Working Party on Labour Market Segmentation, Oslo, July 1982

Tony Lawson Labour market strategies of multinational companies

The European Meeting of the Econometric Society, Dublin, September 1982

Rick van der Ploeg Economic growth and conflict over the distribution of income

Institute of Employment Research Conference on Hours of Work, University of Warwick, September 1982

William Peterson Productivity and employment

The following seminars have been given:

Terry Barker North Sea oil and the British economy (given to the Institute of Energy Economists, London, October 1981, University of Southampton, November 1981, University of Edinburgh February 1982)

Forecasting the recession, UK 1979-81 (given to the CGP and the Operations Research Society, London, February 1982)

The Cambridge Growth Project model (given at Sunningdale, February 1982 and at Oxford Business School, July 1982)

Michael Landesmann Aspects of Marxian economics (4 lectures given as part of 2nd year economics teaching)

Rich van der Ploeg Reliability and the adjustment of sequences of large economic accounting matrices (given to the Royal Statistical Society, November 1981)

Martin Weale International trade theory (a course of 8 lectures given as part of 2nd year economics teaching)

Trade and the Cambridge Growth Project model (given at the University of East Anglia, November 1981)

(with D. Vines) A New Keynesian economic strategy (presented at Queen's College, Cambridge, February 1982)

The need for incomes policy (presented at a seminar on Wage Determination, Civil Service College, May 1982)

(with V. Cable) Trade, aid and the Cambridge Growth Project model (given at the Overseas Development Institute, June 1982)

Growth Project Papers (CGP)

510 Economic conditions, class and voter behaviour: a study based on the British general election of 1966 - Vani Borrooah and Rick van der Ploeg

511 A review of models and data in the Norwegian system of economic planning - Terry Barker

512 A two country disequilibrium model of international finance - Robert Owen

513 A short run factor demand function based on imperfect aggregation of micro units: an example - Adne Cappelen

514 Conflicts over North Sea oil profits and macro-economic policy - Rick van der Ploeg and Martin Weale

515 Energy statistics: the perspective of an economic modeller - William Peterson

516 A model of financial companies' behaviour - Vani Borrooah

517 Forecasting the 1980-81 recession: the track records of Cambridge Econometrics, LBS, NIESR and CEPG - Terry Barker

518 Towards a balanced system of national accounts: UK 1975 - Terry Barker, Rick van der Ploeg and Martin Weale

519 The use of macroeconomic models in economic policy making. The Norwegian experience - Jan Qvigstad

520 Generalised least squares methods for balancing large systems and tables of national accounts - Rick van der Ploeg

521 A fiscal policy model for Norway - Jan Qvigstad

522 A new Keynesian economic strategy - David Vines and Martin Weale

523 Quantity and price effects in an analysis of world trade based on an accounting matrix - Martin Weale

524 Control of medium-term dynamic econometric models: an application to the Cambridge Growth Project model - Rick van der Ploeg

525 Disposable income, unemployment, inflation and state spending in a dynamic political-economic model - Rick van der Ploeg

526 Data-generation processes and applied economics: a critique - Vani Borrooah

- 527 Distributed lag behaviour and the housing market: some further evidence - June Harris and Vani Borooah
- 528 The real resource cost of untying bilateral aid by A.G. Coverdale and J.M. Healey - a comment - Martin Weale
- 529 Economic Growth and conflict over the distribution of income - Rick van der Ploeg
- 530 Deflators in input-output tables - Martin Weale
- 531 A dynamic model of production and inventory behaviour - William Peterson

Sam Unit Papers (SUP)

- 106 Stockbuilding, 1954-1978 - Michael Landesmann
- 107 Indirect taxes - Martin Weale
- 108 SNA UK Classifications (CGP.SNA:NAMES through PRINT)
- 109 SNA UK Sources and Methods (CGP.SNA:SOURCES through EGCAL)
- 110 SNA UK 1975 Detailed Tables (CGP.SNA:PRSNA through MREG)
- 111 SNA UK 1975 Checks (CGP.SNA:CCHSNA through MREG)
- 112 Financial assets and flows in MDM5 - Terry Barker

TRADE AID AND BRITISH INDUSTRIAL STRUCTURES

Project member: Martin Weale

This is a joint project with the Overseas Development Institute and is funded by ESCOR. Its purpose is to look at the effects of various trade and aid policies on the UK economy. In order to pursue the analysis at a disaggregate level use is made of the Cambridge Growth Project Model. Results obtained so far have shown that the effects of protectionist policies (tariffs, internal quotas and voluntary export restrictions) analysed in a framework where external and internal balance are maintained, are very sensitive both to the type of protection and the industry which is protected. The extent to which domestic prices are assumed to be influenced by the cost of competing imports also significantly alters the outcome.

The project also examines the consequences of tied and untied aid policies. In order to examine these in a framework of international aid expansion a static 10-region model of the world economy has been constructed. Results provided by this model confirm that the effects on the UK depend very significantly on whether aid is co-ordinated or whether the UK acts on its own. Further it is shown that there is no unambiguous definition of the burden of aid on the donor country.

Publications

Cable V. and M. Weale - 'Trade and Aid Policy Analysis: Use of the Cambridge Growth Project Model' - Overseas Development Institute Review, June 1982

Unpublished Paper

Weale M.R. - 'Quantity and Price Effects in an Analysis of World Trade Based on an Accounting Matrix', GPP523, Department of Applied Economics

THE EFFECTS OF ECONOMIC POLICY

This programme has continued in one form or another for nearly twelve years, financed mainly by the Social Science Research Council, and is undertaken by the dozen or so members of the Cambridge Economic Policy Group working on the programme and related projects under the direction of Wynne Godley. The programme has led to the development of a computer model of the UK economy and the publication of annual Economic Policy Reviews as well as to a large number of research papers and publications on particular issues.

Members of the Group

Michael Anyadike-Danes (resigned October 1982)	Graham Cudgin
Iain Begg	Barry Moore
Kenneth Coutts	John Rhodes
Francis Cripps	Roger Tarling

Wynne Godley

Terry Ward

Frank Wilkinson

Visitor to the Group

Pascal Petit, CEPREMAP.

In 1981-82 the major part of the work continued to be financed under a four-year programme (agreed with the SSRC) which aims to develop an integrated analysis of economic policy extended to the international level within the European Community and to the regional and sub-regional level within the UK and other countries. The programme is directed at what seem likely to be the key economic problems facing Britain and the Community in the 1980s for which no empirically-based system of analysis at present exists. The main task is one of constructing appropriate accounting systems and macro-economic models to provide a framework within which particular policy issues and specific pieces of research can be evaluated.

The main results so far have been as follows:

- (1) consistent accounts for world trade and a model by bloc which gives a strategic analysis of Western Europe's position in the world economy (see EPR 6.3 and 7.2)
- (2) provisional accounts by sector for EEC member countries and a model covering sectoral developments, trade, growth of GDP, employment and unemployment in those countries (see EPR 7.2)
- (3) a system of regional accounts for the UK (EPR 6.2)
- (4) a regional model of employment and migration in the UK, embedded in the CEPG model of the national economy (results to be published in EPR 8.2)

- (5) computer programs for data analysis and for processing the above models.

We have also continued to spend a considerable amount of time on the more traditional task of analysing UK national developments. This has been necessary because of changes in the direction and effects of UK policy.

Notes

- (1) The world economy model has proved crucial for assessment of European prospects because Western Europe as a whole plays such a large role in world trade that developments in the rest of the world are quite strongly interdependent with developments in Europe itself. Our world model now has endogenous oil and raw material prices. The dynamics of the world energy market, interacting with variations in the growth of aggregate income and output, are an important feature of the model on which further work could usefully be done.
- (2) Development of the model of European economies has been hampered by data problems, as Eurostat sources have proved to be of very uneven quality. To overcome these problems we have started to make more use of OECD sources; we hope soon to complete arrangements for regular updating of our data with the aid of OECD tapes. This apart, the major development which remains to be undertaken for the European model is to incorporate explicitly inflation rates, nominal exchange rates and fiscal and monetary adjustments. Our first published analysis of European prospects using the world and EEC models, published in December 1981 (EPR 7.2) attracted considerable interest in Brussels and in some European countries other than the UK. There is a considerable demand for us to make the models available to others, which we shall endeavour to meet during the remaining year of the programme.

(3) The main emphasis of our regional analysis has been the UK, but we have also been in discussion with DGXVI (Regional Policy) at Brussels and with colleagues in other countries about the development of standardised regional statistics for European countries. An Italian group has produced regional accounts for Italy in the same form as those we published in 1980 for the UK and we are working on a system for reconciling and updating regional employment estimates by industry for EEC member countries.

(4) The main development in our regional work over the past year has been the construction of an integrated demographic and employment model for the UK regions, linked to our macro-economic model of the UK as a whole. This enables us to project regional employment, migration and unemployment on alternative assumptions about national and regional policy.

The employment projections are disaggregated by seven sectors (as well as by region) and incorporate the results of research on urban-rural shifts within and between regions as well as on the effects of regional policy. Results from the new model will be published later this year (EPR 8.2 January 1983).

Study of the labour market has been particularly important in the context of general recession which has in some important respects begun to change institutional behaviour, including wage-bargaining and patterns of labour market segmentation.

The developments now occurring prove to have common features in many European countries. We have been closely in touch with labour market specialists in other countries following these developments.

(5) The computer software developed under this research programme provides the means for bringing together and reconciling rather complex, heterogeneous bodies of data and for processing the four models (world, EEC, UK and regional). The programmes have in most cases been written in a fairly general

form to provide maximum flexibility (for example, the same model-definition and solution programs are used for all four models). The main step which remains is to improve the transparency and transportability of the programs and to complete their documentation.

Publications

Cambridge Economic Policy Reviews:

vol 7 no 2 December 1981 'The European Community : problems and prospects' by Begg, Cripps and Ward

vol 8 no 1 April 1982 'Prospects for the UK in the 1980s'

including

Policy Assessment
Britain in the 1980s by Coutts,
Cripps & Ward
Will British industry recover? by
Begg & Rhodes
Reflation and industrial policy in
France by Pascal Petit
The New Cambridge hypothesis and
fiscal planning by Anyadike-Danes
Inflation and unemployment - a
critique of Meade's solutions by
Tarling and Wilkinson

Anyadike-Danes, Cripps and Godley Income determination and
financial net worth, discussion
paper, June 1982 (DAE mimeo)

Begg Restructuring : The UK and the Third
World, The World First : North-South
Links : Living with the World Crises,
September 1982

Begg, Cripps, and Ward Why oil prices must remain high,
Financial Times, 6 January 1982

CEPG 'Le poids de la contrainte
energetique sur la croissance
europeenne', Problemes Economiques,
La Documentation Francaise, 26 May
1982

Coutts and Cripps CEPG Model of the UK Economy,
Technical Manual, 8th edition,
September 1982 (DAE mimeo)

Cripps and Ward Allied effort for European reflation
The Guardian, 8 March 1982

Cripps, Godley and Ward Mrs Thatcher on course for over 4
million unemployed, The Guardian 26th
April 1982

Cripps, F. Macro-models and research on economic
policy, in Bank of England discussion
papers, 1981

Cripps, F. Contribution to 'The Regional Impact
of the Community's External
Commercial Policy', EEC Doc
XVI/367/81, 1981

Fothergill and Gudgin What really causes regional
unemployment? The Guardian, 9 June
1982

Fothergill and Gudgin Unequal Growth : Urban and Regional
Employment Change in the UK,
Heinemann 1982

Godley, W.A.H. Hidden danger in Meade wage-fixing
plan, The Guardian, 2 February 1982

Godley, W.A.H. Getting desperate, The Observer, 30
May 1982

Moore and Rhodes Urban/rural shift and the evaluation
of regional policy, Journal of
Regional Science and Urban Economics,
vol 12 no 1, February 1982

Tarling and Wilkinson The Movement of Real Wages and the
Development of Collective Bargaining
in the UK, 1855-1920, in
Contributions to Political Economy,
Academic Press, 1982, March

Tarling, Robert and Wilkinson 'Job generation and company
strategies' paper for conference on
Unemployment Research 23-24 April
1982

Tarling, R.J. Alcune considerazioni sui processi di
aggiustamento nel mercato del lavoro,
in P. Garonna, (ed.), Disoccupazione
e Pieno Impiego, Venice, 1981

Tarling, R.J. Comments on Lal's Paper, in
Unemployment, The European
Perspective, Maddison and Wilpstra,
(eds), Croom Helm 1982

Ward T.S. 'Public expenditure after the
December Statement' and 'Public
expenditure plans and outturn';
First Report from Treasury and Civil
Service Committee, Session 1981-82,
The Government's Economic Policy
Autumn Review

Ward T.S. 'The Budget and Economic Prospects'
Fourth Report from Treasury and Civil
Service Committee, Session 1981-82,
The 1982 Budget

Ward T.S. 'Public Expenditure' and 'Cash
Planning of Public Expenditure';
Fifth Report from Treasury and Civil
Service Committee, Session 1981-82,
The Government's Expenditure Plans
1982-83 to 1984-85

Ward, T.S. 'Armstrong and Subsequent
Developments' and 'Cash vs. Cost
Planning of Public Expenditure';
Sixth Report from Treasury and Civil
Service Committee, Session 1981-82,
Budgetary Reform

Ward, T.S. 'An Alternative Economic Strategy for
the UK and Policy towards Europe',
paper to Friedrich Ebert Stiftung
conference, Brussels 1-2 July 1982.
(to be published in book of
conference papers)

Ward, T.S. 'Public Expenditure and Employment',
Contribution to report of group of
experts, Commission of the European
Communities, 1982 (to be published)

Ward, T.S. 'Mrs Thatcher's economic strategy'
Journal of Post Keynesian Economics,
vol IV no 4, Summer 1982

Conference and seminars:

Mr. T.S. Ward delivered papers at the following conferences:

'Major Budgetary Problems in the 1980's', international conference
sponsored by Fondazione Adriano Olivetti, Siena, Italy, Nov. 1981

'Concepts of Economic Policy in Europe', European conference
organised by Friedrich-Ebert-Stiftung, Brussels, July 1982

'Europe in the 1980s, international conference organised by Cambridge Journal of Economics, Cambridge, July 1982.

He also attended:

'Employment Implications of Policies in the European Community', European conference organised by Federal Trust at Wilton Park, Sussex, February 1982

He gave seminars to:

College of Europe, Bruges, December 1981

National Union of Mineworkers, School of Economic Policy, Northern College, Barnsley, March 1982

European Commission, Directorate-General for Economic and Financial Affairs, Brussels, June 1982

and gave a number of talks to business conferences, trade union meetings and student groups during the year. He also gave a number of television and radio interviews on economic policy and current problems. He continued to act as a specialist adviser to the Treasury and Civil Service Committee on economic policy and public expenditure and helped the Committee prepare its reports on the Chancellor's December 1981 statement, the 1982 Budget, the 1982 public expenditure plans and on Budgetary reform.

LABOUR STUDIES GROUP

1. The determinants of informal payment structures

This is a two-year project which started in January 1980, financed by the Department of Employment. The research staff involved are Frank Wilkinson, Christine Craig and Jill Rubery, and Elizabeth Garnsey who is retained as a consultant.

Aim

The aim is to explore the relationship between workforce characteristics, the structural constraints within which firms operate, and the development of payment structures. The emphasis is on the employment of women in small firms which tend not to have formalised payment systems. A full description of the background to the inquiry and of the scope of the investigation is contained in the 21st Annual Report.

The final report on this project was submitted to the Department of Employment in August 1982 and a seminar to discuss the report held in December. Members of the Department of Employment, the Equal Opportunities Commission and academics attended. Throughout the year working papers on the separate industries and on the employees survey were submitted at intervals to the Department of Employment: one working paper on the plastics processing industry has yet to be completed. A draft of an article to appear in the Department of Employment Gazette has been sent to the Department of Employment. It is hoped that the final report will be published in a revised form, possibly in the Department of Employment Research Paper Series, and that the working papers can be made available as mimeos from the DAE.

2. International Working Party on Labour Market Segmentation

Steering Committee Members: Jill Rubery, Roger Tarling,
Frank Wilkinson.

The Labour Studies Group continued its active involvement with the International Working Party throughout the year.

1. In March 1982 the final report on the EEC funded project on the causes and consequences of labour market segmentation was submitted to the EEC, together with 24 reports on case-studies of industries covering Britain, France, Germany, Italy and the US.

2. In July 1982 the fourth conference of the International Working Party was held in Oslo, organised by the Institute for Social Research, and partly funded by the Norwegian Ministry of Labour. The topic for the conference was:

'Flexibility and rigidity: the struggle for control in the labour market'.

The following papers were presented by members of the DAE Labour Studies Group.

Roger Tarling and Frank Wilkinson: Flexibility: an analytical outline.

Jill Rubery: Flexible labour costs in the secondary sector.

Elizabeth Garnsey: Alternative working arrangements.

3. EEC labour market study

Project members: Jill Rubery, Roger Tarling, Frank Wilkinson

Sponsor: EEC

Three papers, on flexibility in employment, income maintenance and inflation, were prepared and submitted to the EEC in February 1982. The paper on flexibility in the use of labour and fixed wage costs describes the range of factors underlying employment adjustment and draws attention to our limited knowledge about systems of work organisation and the relationship between work organisation and the flexibility of response by firms and industries to changing technical and market environments. The paper on income maintenance draws out the links between social security systems, access to wage incomes and minimum wage policy when labour markets are segmented. The inflation paper argues that an explanation of the inflationary process as the outcome of struggles over the distribution of real income between and among wage earners and profit takers raises major doubts about conventional anti-inflation policies and suggests some principles which should underpin anti-inflation policy.

4. The impact of information technology on manufacturing production processes and employment

Project members: Jill Rubery, Roger Tarling and Frank Wilkinson

A preliminary study was made of the impact of information technology on manufacturing production processes and employment in the UK, with specific reference to chemicals and mechanical engineering. This study was funded by the EEC and formed the basis for the submission of a collaborative research prospectus to the EEC from the Bureau d'Economie Theorique et Appliquee, Universite Louis Pasteur, Strasbourg, the Institute of Economics, Rome and the DAE Labour Studies Group, Cambridge. Two meetings were held in

Rome in 1982, attended by Jill Rubery, to discuss the collaborative report and research proposals.

5. The impact of the Retail Wage Councils

Project members: Frank Wilkinson, Christine Craig,
Jill Rubery and Roger Tarling

This enquiry has been commissioned by the Department of Employment with the aim of assessing the effects of changes in statutory minimum wage rates on earnings and employment in the Retail Trades.

The Department of Employment's interest arises from recent suggestions that wages councils set minimum rates of pay too high, and so have an inflationary effect and discourage employment. This is a dramatic change from the attitudes during the 1970s which suggested that statutory minimum rates were too low, so that the wages councils were irrelevant to the determination of pay, or even harmful to discouraging the establishment of voluntary collective bargaining and thus contributing to the maintenance of low pay.

The project will examine the effects of changes in minimum wage rates in specific sectors of retailing: food, household goods, confectionary, tobacco and newspaper sales, and menswear. The main information will be derived from interviews with management in shops at three levels of retailing: small local shops which may sell a mixture of goods: independent high street shops and small local chains: supermarkets and other national chains. The enquiry will be concentrated in two local labour market areas: one high unemployment area (Rotherham), and one area with relatively low unemployment (Ipswich). The plan is to interview a total of about eighty businesses in the local areas, and also to interview management at the head offices of large national chains, employers' associations and trade union representatives. Additional information will be derived from the records of the Wages Inspectorate, from the Office of Wages Councils, and from a survey

of Job Centre vacancy data in the two local labour market areas. The empirical information will be analysed in conjunction with background statistical data derived from the wage rate series for wages councils already compiled by Tarling and Wilkinson and from the Department of Employment's earnings surveys.

The analysis will attempt to provide an evaluation of:

- (a) The relationship between statutory minimum rates and actual wage rates and earnings, and changes in this relationship.
- (b) The effect of statutory minimum rates and changes in rates on wage structures.
- (c) The effects of statutory minimum rates and changes in rates on employment.

The analysis will also consider the effect of variables such as firm size, product markets, technology, and methods of work organisation, and the relationship between changes in these variables and wage rates, earnings and employment. It may not be possible to disentangle clear-cut causes and effects in a sector which has undergone changes of several kinds during the last two decades, but it is important to try and assess how far factors other than statutory minimum rates may have contributed to changing patterns of pay and employment.

The first six months of the project have been spent in assembling background information, having discussions with representatives of individual employers' associations and with the main trade union involved, drafting the questionnaire for the main survey work and planning the fieldwork. Meetings have also been held with the representatives of the thirty-two employers' associations who constitute the Employers' Sides of the two Retail Wages Councils. So far, they have offered enthusiastic co-operation, which suggests that it should be possible to obtain a good response rate in the main survey.

6. Employment consequences of changes in the manufacturing production process

Project members: Jill Rubery, Roger Tarling and

Frank Wilkinson

Sponsor: SSRC

This new research project is concerned with managerial response to product market, technological and institutional conditions and the impact of these responses on the level of employment, the nature of skills, the system of work organisation, industrial relations and the terms and conditions of employment. In studying these developments the project will have three related objectives: to provide information on changes in the organisation of the manufacturing production process and the associated modification of the employment system; to analyse the factors determining the evolution of the manufacturing employment structure; and to consider the implications of current developments for employment prospects in manufacturing.

Publications

Christine Craig, Jill Rubery, Roger Tarling, and Frank Wilkinson, 1982. Labour Market Structure, Industrial Organisation and Low Pay DAE Occasional Paper, No. 54, CUP.

Jill Rubery and Roger Tarling. 'Women in the recession', Socialist Economic Review, 1982. Merlin Press.

Roger Tarling and Frank Wilkinson. The movement of real wages and the development of collective bargaining in the UK: 1855-1920. Contributions to political economy, Vol. 1, March 1982.

Roger Tarling and Frank Wilkinson. Inflation and unemployment - a critique of Meade's solutions. Ch. 5, Economic Policy Review, Vol. 8, No. 1, April 1982.

Roger Tarling. Comment on Lal's paper in Maddison and Wilpstra (ed.) Unemployment: the European Perspective, London, Croom Helm.

Reports to the UK and International Organisations

Jill Rubery, Roger Tarling and Frank Wilkinson. February 1982. Industrial Relations Issues in the 1980's. Report submitted to the Department of Employment.

Christine Craig, Elizabeth Garnsey, Jill Rubery. August 1982. Payment structures in small firms: a study of sex differentiation in employment. Final report to the Department of Employment.

Jill Rubery, Roger Tarling, Frank Wilkinson. February 1982. EEC Labour Market Studies.
1. Flexibility in the use of labour and fixed wage-costs
2. Income maintenance
3. Inflation
Report submitted to the EEC Commission.

Jill Rubery, Roger Tarling, Frank Wilkinson (in collaboration with M. Bolle, S. Bruno, S. Rosenberg, W. Sengenberger) A study of the causes and consequences of labour market segmentation. Report submitted to the EEC commission.

Jill Rubery, Roger Tarling, Frank Wilkinson. 'The impact of information technology on manufacturing production processes and employment' as part of report 'Les mutations du système productif européen' submitted to the EEC commission by BETA, Université Louis Pasteur, Strasbourg.

Frank Wilkinson: joint author of report on inflation and unemployment by committee of experts for the EEC commission.

Elizabeth Garnsey and Roger Tarling. Measures of job segregation as social indicators: the differentiation of jobs held by men and women. Report submitted to the OECD.

Other Activities

Membership of Committees

Roger Tarling. Member of SSRC Industry and Employment Committee
Member of Joint SERC-SSRC Committee
Member of Advisory Board of the IRRU, Warwick

Frank Wilkinson. Member of EEC Commission committee of experts considering the causes of inflation and unemployment.

Seminars/conferences etc.

September 1982. Rubery, Tarling, Wilkinson gave a seminar at the Department of Employment on Industrial Relations Issues in the 1980s.

December 1982. Craig, Garnsey, Rubery gave a seminar at the Department of Employment on Payment structures in small firms: a study of sex differentiation in employment.

April 1982. Roger Tarling gave a paper at the SSRC Unemployment Research Conference.

Roger Tarling, Jill Rubery, Frank Wilkinson.
'Job Generation and Company Strategies'.

May 1982. Jill Rubery gave seminar at Nuffield College, Oxford on 'Labour market segmentation in theory in the 1980's'.

July 1982. Oslo conference of the International Working Party on Labour Market Segmentation. Papers presented by Garnsey; Rubery; Tarling and Wilkinson.

September 1982. Kings College research conference on shop floor bargaining and the state:

Frank Wilkinson. Nationalisation and the shop floor reorganisation in steel

Roger Tarling and Frank Wilkinson. Real wages and the development of collective bargaining 1895-1982.

April 1982. Frank Wilkinson gave a course of lectures on labour market segmentation and a faculty seminar on 'Productive systems' at the University of Modena

May 1982. Joint trade union and Modena University seminar in Milan:

Frank Wilkinson. Trade unions and politics in the British economy.

LABOUR MARKETS IN DECLINING INNER CITY AREAS

Project Members: Barry Moore and John Rhodes

Sponsor: SSRC

This project has been described in detail in the 21st and earlier Annual Reports. The final report was submitted to the SSRC in April 1982.

A paper entitled 'Unemployment in Inner Cities' was presented at the SSRC Conference on Unemployment (June 1982).

The main results of the project were published in Ch. 3 of Vol. 8, No. 2, of the Cambridge Economic Policy Review (January 1983).

ANALYSIS OF THE CAUSES AND EFFECTS OF MERGERS

Project Members: A. Hughes, M.S. Kumar and A. Singh

Associate Members: A.D. Cosh

This project, financed for three years by the SSRC, was completed in December 1981. The research which was carried out was concerned with the empirical investigation of a number of major issues concerning the causes and effects of mergers. These issues are important both from the point of view of economic theory, and public policy. Investigation was carried out into the following four main areas:

- (i) An analysis of the profitability effects of mergers, using alternative methodologies and different sample time periods, building on the authors' previous work in this area.

(ii) The economic impact of merger and new fixed investment, using both time series and cross-sectional data.

(iii) The relationship between the size of firms, their merger activity and export performance.

(iv) The impact of management control upon the frequency and financial implications of mergers.

The starting point of investigation under (i) was the large literature which existed in this area, and it sought to clarify and resolve certain significant inconsistencies and anomalies in the empirical research. Research under (ii), (iii), and (iv) was concerned with a range of questions not previously investigated in any detail. These questions, particularly under (ii) and (iii) arise from an approach to economic efficiency which contrasts sharply with that used in the literature by its emphasis on the dynamic implications of merger in a disequilibrium economy. A number of important results for both theory and policy have been obtained in these areas. These results and their implications are discussed at length in the end of grant Report submitted to the SSRC, which is available from the authors.

Data used, international collaboration and further research

The study made extensive use of data made available as a result of the Companies Act of 1967. These data, relating in particular to the remuneration and shareholding interests of management, and the exports of quoted companies, were available over a sufficiently long span of years to have made possible, for the first time, a systematic analysis of the issues outlined above. The data are extremely well prepared, and reliable, and in all the study used the records of some two thousand companies over seventeen years (1960-76). In addition, for the study of ownership control,

published accounts of the companies were examined to obtain the necessary information.

There was a close collaboration with colleagues in several European countries, and in the United States. A number of papers were presented at academic conferences in Berlin, Paris and Brussels. The sharp increase in merger activity in the last few years, both in the United States and Europe, has led to an increased interest in, and concern about, the causes and effects of mergers. There is also a growing international debate about a suitable competition policy. This makes further research on the range of questions investigated in this project all the more important. We propose to undertake this extension by concentrating on the following sorts of issues: (i) the effect of mergers on investment in the domestic and foreign economies (ii) the economic relationship between acquisition activity and the increasingly multinational character of firms and (iii) the role of institutions in merger activity in general.

Publications and Working Papers

A. Hughes and A. Singh, 'Mergers in Advanced Capitalist Economies: An International Perspective' in D.C. Mueller (ed). The Causes and Effects of Mergers: An International Comparative Study of Seven Nations. Oelgeschlager, Gunn and Hein, Cambridge, Mass., 1980.

A. Hughes, D. Mueller and A. Singh, 'Hypotheses about Mergers'. (This, and the following two papers have also appeared in Causes and Effects of Mergers)

A. Hughes, D. Mueller and A. Singh, 'Competition policy in the 1980's: the implications of the international merger wage'

A. Cosh, A. Hughes and A. Singh, 'The Causes and Effects of Takeovers in the United Kingdom: An Empirical Investigation for the late 1960's at the Microeconomic level'

M.S. Kumar (1982) Growth, Acquisition, Investment and Foreign Markets: A study of UK quoted companies 1960-1976, (Ph.D Dissertation, Cambridge)

M.S. Kumar (1981), Do Mergers reduce Corporate Investment?
Evidence from the United Kingdom Experience. Cambridge
Journal of Economics, Vol. 5, No. 2, June

Working Papers

The Impact of Mergers on profitability: A synthesis.

Investment and Acquisitions.

Size, Acquisition and Exports.

Ownership characteristics and Merger Performance.

INSTITUTIONAL INVESTMENT, MERGERS AND PUBLIC POLICY

CONGLOMERATE ORGANISATION AND ECONOMIC EFFICIENCY

Project Members: A. Singh, A. Hughes and M.S. Kumar

Association Member: A.D. Cosh

These two projects, financed by the OFT, started in May 1982. They extend the authors' earlier work on the impact of mergers, and investigate a range of new issues. The aims and methods of research for the two projects are examined in turn.

1. Institutional investment and mergers

There has been a growing public awareness of the enormous increase in the share of ownership of industrial companies by institutional investors: pension funds, insurance companies, unit trusts and other institutional holders. Despite the well known difficulties of obtaining reliable statistical data in this area (largely, but not entirely, due to the accepted practice of listing holdings in company share registers in the names of nominees rather than the 'beneficial' owners), the facts concerning the extent of

institutional domination of the capital of industrial and other companies are by now quite well established. For example, in 1975 these institutional investors accounted for 42.1% of the ordinary share capital of the U.K. companies; this percentage had increased to 47 by the end of 1978. Forecasts considered by the Wilson Committee suggest that by the year 2000, the institutional investors may well own two thirds of the equities listed on the stock exchange.

However, although there is broad agreement over the facts as well as the reasons for the increasing domination of industrial companies by institutional holdings, the implications of these facts arouse great controversy. The implications are, indeed, far reaching and extend to several areas; from the general social theory of the nature of contemporary capitalist society, to narrow, but extremely important, issues in the economic theory of the firm, and to questions of public policy.

The purpose of the research being undertaken is to shed some light on the role of institutional investors in the merger process. The huge merger wave which has engulfed U.K. industry during the last two decades has been the subject of a large academic literature; the effects of these mergers on industrial performance and economic growth rightly continue to be matters of serious public policy concern. In summary, the results of the academic research so far suggest that at the microeconomic level, the effect of mergers on company profitability has most likely been neutral i.e. on average mergers have neither raised, nor lowered, profits of amalgamating firms. There is unambiguous evidence that in perhaps half the cases mergers reduced microeconomic efficiency. A central question which arises with respect to the role of institutional investors is whether or not the post-merger performance of companies where such investment is important, has been markedly different from that of other companies. To what extent, if at all, do institutional investors use their influence and professional knowledge to

discourage mergers which they believe are unlikely to be successful.

The research project will investigate two main issues:

- (i) Why do institutional investors not more frequently use their influence to discourage take-overs and mergers in view of often disappointing post-merger performance?
- (ii) Where institutional investors are important share-holders in large companies, are they over-influenced by the short-term capital gains?

The research methodology will consist of studying these issues in two complementary ways. First, by means of ex post statistical data and observed outcomes, and second, by means of interviews. With regard to the first, the research will be based on data on company characteristics and performance which are available on the Department of Industry's Data Bank, and on new data on company stockholdings which is being collected from share registers and other sources. This will be complemented by direct interviews with important pension funds and other institutional managers. Apart from the general questions in this area, it is hoped that the interviews will also cover specific cases of important take-overs in which the institutions had been involved. The ex post research will be important in the design of interviews: it will also help subsequently to place the interview material in perspective.

2. Conglomerate Organisation and Economic Efficiency

The research has two main aims: firstly, to answer some basic questions about the internal organisation and economic performance of large diversified firms in the UK; secondly, to consider the implications of these results for the development and implementation of industrial and competition policy. Particular attention is paid to questions of investment appraisal and the allocation of capital funds within companies, and a distinction is

drawn between investment in new capital equipment and the purchase of subsidiaries. As for the institutional investment project, the research will be carried out using questionnaires and interviews with management, as well as using published information on ownership and other characteristics of firms, and their performance.

Significant amounts of data have been collected on institutional holdings in a sample of the three hundred largest companies. These data are being combined with the DI databanks to examine the issues noted above. M. Kumar and A. Hughes have been also collecting similar data on US companies for some comparative analysis.

IMPACT OF TRADE WITH THE DEVELOPING COUNTRIES ON THE UK ECONOMY

This research project, carried out by Dr. A. Singh, was completed during this year. It formed a part of a wider project, sponsored by the United Nations Industrial Development Organisation in Vienna, on the impact of the industrialization of the Third World on the economies of the advanced countries. Research teams in France, the US, the UK, Belgium, the Netherlands, Austria, Switzerland, West Germany, Sweden and Australia studied problems of structural adjustments in advanced economies as a result of trade and economic growth in developing countries.

In analysing effects of third world trade on output and employment in this century, the UK study uses a different conceptual framework from that employed in the research on other industrial countries. This research invariably showed that trade, particularly trade with the third world, has a relatively small impact on employment in these countries, compared with the effects of factors such as technological progress, productivity growth or changes in consumer demand. On the basis of an alternative methodology, the UK study concludes that the major reason for the high levels of unemployment

in this country until 1979, was, indeed, trade rather than other influences. However, it emphasises that it was imbalances in trade with the other developed countries, and not with the third world, which were the major source of unemployment. Nevertheless the analysis also points to some disturbing long-term changes in the UK trade with a number of third world and newly industrialising countries, with serious implications for output and employment in the future.

Conferences, Papers and Publications

Dr Singh presented papers at conferences in Vienna and Lisbon.

A. Singh, Structural Changes in the UK Economy: A Long Term Structural Analysis of UK's Trade with less Developed Countries and its Impact on the UK Economy, UNIDO, Vienna, forthcoming, 1983

A. Singh, 'Industrialization in the Third World and De-industrialisation in Advanced Countries: Does Southern Industrialization De-industrialize the North' in The International Restructuring Process: The E.E.C. The European Periphery and the other Developing Countries, Proceedings of Sessimbra Seminar, UNIDO, Vienna, 1982

COMPANY FINANCE AND PERFORMANCE

Project members: A.W. Goudie, G. Meeks

Associate member: J.G. Meeks

Sponsor: Esmee Fairbairn Charitable Trust

The project is a continuation of earlier research on the company sector at Cambridge, Edinburgh and Bristol. It aims have been to extend and develop a data bank of quoted companies' accounts; to use these accounts in modelling the financial decisions of individual companies; to incorporate these models in the Cambridge Growth Project's disaggregated model of the British economy; and to use the integrated models for forecasting and policy evaluation.

The following progress has been made this year

i) Data Processing

Substantial progress has been made towards incorporating accounts for 1978 into the data bank. This is an unprecedentedly difficult update of the data bank because of the supplier of the basic data we use, the Business Statistics Office, has for 1978 changed its sample of companies, its accounting framework and its computer. All our programmes for assimilating the data have therefore to be radically re-written.

Copies of the existing databank (1948-77) have been provided to other academic users.

ii) Model Building

The disaggregated model of the listed company sector has been further developed and now generates full sector accounts as well as distributions of individual companies' financial performance for the period up to 1988 for any set of macroeconomic assumptions. An optional aggregate model of the company sector has been developed for the Cambridge Growth Model (see paper 3 below); and the performance of disaggregate and aggregate models has been compared (papers 4 and 5).

iii) Policy Evaluation

The model has been used to analyse the prospects for the listed company sector under different medium-term macroeconomic assumptions (paper 8) and to explore the implications of macroeconomic policy for the corporate failure rate (paper 7).

Papers published, prepared, etc. during the year

1. A.W. Goudie and G. Meeks, Diversification by merger, Economica, forthcoming
2. A.W. Goudie, Corporation tax and the cost of dividends, Bulletin of Oxford Institute of Economics and Statistics, 1982
3. A.W. Goudie and G. Meeks, An aggregate model of the industrial and commercial company sector, paper presented to Cambridge Growth Project seminar
4. A.W. Goudie and G. Meeks, Individual agents in a macroeconomic model: UK companies in Cambridge's MDM, paper presented to Cambridge Growth Project seminar

5. A.W. Goudie, 'Tax exhaustion: estimates from a disaggregated model of corporate tax liabilities', Applied Economics, forthcoming
6. A.W. Goudie and G. Meeks, 'Macroeconomic developments and individual companies' flows of funds', Omega, 1982
7. A.W. Goudie and G. Meeks with J.G. Meeks, 'Some macroeconomic aspects of company failure', paper presented to CE/CGP Conference, 1982
8. A.W. Goudie and G. Meeks, 'Prospects for the company sector under different macroeconomic regimes: present policies continued, high oil prices, a protection package, and an investment strategy'

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

Project members: J.E. Meade and David Vines

Sponsor: SSRC

The purpose of this project is to consider the administrative and economic feasibility (though not the political acceptability) of a two-pronged set of policies:-

- (1) monetary, budgetary, and foreign-exchange policies so designed as to ensure a steady but restrained rate of growth (e.g. at a 5 per-cent-per-annum rate) of the total of money demands for the goods and services produced in the UK; and
- (2) a combination of various reforms of different wage-fixing institutions and arrangements which, against the background of a steady rate of growth in the demand for the products of labour, would promote full employment

It is an essential feature of the proposal that these two sets of policies make up a single package and that one could not in fact operate set (1) without set (2) or set (2) with set (1).

Nevertheless they do raise very different issues. Set (1) raises a number of specialised issues in macro-economic analysis ranging, for example, from the construction and use of a suitable dynamic control model of the UK economy to the administrative question how

promptly and frequently a rate of tax (e.g. VAT) could reasonably be varied in order to influence expenditure on goods and services. Set (2) is centred on labour economics and is necessarily much more speculative in that it describes various conceivable changes in wage-fixing.

1. A book by J.E. Meade entitled Stagflation Volume 1: Wage Fixing was published by Allen and Unwin on 21st January 1982.

2. A further study has been completed and will be published as Stagflation Volume 2: Demand Management by Allen and Unwin in 1983, jointly authored by D. Vines, J. Maciejowski and J.E. Meade. The book opens with six theoretical chapters advocating "New Keynesian" demand management. There then follows an investigation of feedback control rules along New Keynesian lines for fiscal, monetary, and exchange rate policy using a quarterly dynamic model of the UK economy, based on the UK Treasury model. The basic investigation of these rules was described in "The Design and Performance of New Keynesian Policies" by D. Vines and J. Maciejowski, forthcoming in A.S. Courakis (ed.) Monetarism: Traditions, Debates and Policies.

3. In the second part of the book, these rules are used to replay history over the 1970's and early 1980's so as to investigate what the performance of the UK economy might have been if these policies had been implemented. An early version of this work was reported to the 4th Economics and Control Conference in Washington DC., USA in June 1982. The book also includes a large section on Statistical and Administrative Problems facing "New Keynesian" Demand Management. There is also an exposition of the quarterly dynamic model of the UK economy which we have used. And finally there is an account of the method by which the controls rules have been decided. In order to make the book self contained this last section includes a concise introduction for economists to modern "engineering" methods of multivariate feedback control.

4. Over the past year David Vines has written a paper with Martin Weale entitled "A New Keynesian Economic Strategy" and has presented it at seminars at Queens College, Cambridge, Manchester and Sussex Universities, The National Institute of Economic and Social Research, and the Society of Business Economists. A paper by Meade, Vines and Weale on a New Keynesian Financial Strategy appeared in the Financial Times for 8 December 1981. James Meade has written a paper called "A Proposed Structure for International Monetary Arrangements" for the House of Commons Select Committee on the Treasury.

5. Two Research Students have begun working with the Project. N. Christodoulakis, a Ph.D student in control engineering, has been applying our methods to the London Business School and National Institute Models and has produced a paper with D. Vines on the "Dynamic Properties of the London Business School Model". P. Westaway has already written an M.Phil. thesis on the application of alternative control methods to our problems, and has been awarded an SSRC Research Linked Studentship in Economics to work with the Project.

A COMPARISON OF LABOUR PRODUCTIVITY WITHIN INTERNATIONAL COMPANIES

This project by C. Pratten was financed by the Department of Industry. Its purpose was to update an earlier comparison of productivity within international companies, to find the current differences in productivity and the reasons for changes since the early 1970s.

A final Report on this study has been submitted to Department of Industry.

ADJUSTMENT PROBLEMS AND POLICIES IN AN INTEGRATED WORLD ECONOMY

The project, by M. Panic, is financed by one of the Sainsbury Family Trusts.

Significant differences in the growth of productive capacity and productivity over the last thirty years were creating serious adjustment problems (declining industries, rising unemployment, chronic balance of payments deficits) even before the energy crisis. What the crisis has done is to increase, since 1973, both the scale and prevalence of international maladjustments and the urgency with which they have to be corrected.

The aims of the project are: (1) to analyse certain aspects of industrialisation - especially of industrialisation at unequal rates - which give rise to cumulative disequilibria and, thus, the need for specific, restructuring policies; (2) to consider the type of policies that could be applied effectively in a complex, open economy in which basic decisions concerning resource allocation have to be decentralised; and (3) to analyse the forms of international co-ordination which are essential if a highly integrated, interdependent world economy is to avoid major crises.

The project, the work on which started in February 1982, is divided into two parts.

Part I considers the broad international economic environment: its changing problems and policy responses. It distinguishes between short and long-term external disequilibria; analyses, on the basis of historical experience over the last century and a half, the effect which differences in international attitudes to fundamental disequilibria have had on the international division of labour; the way in which the energy crisis has added a new dimension to these problems; and, finally, some broad, global, policy requirements. The first half of Part I has been completed and work is in progress on the second half.

Part II will analyse the process and forms, and well as give some quantitative indicators, of economic integration, both national and international; the limits that this places on certain types of national economic policies; and the types of domestic policies which can be pursued independently in an open economy with serious structural problems. Special attention will be paid to developing a consistent analytical framework within which the last group of policies can be filled. The main arguments will be illustrated with examples from the economies which have pursued these policies successfully.

Publications.

M. Panić: "Monetarism in an Open Economy", Lloyds Bank Review, July 1982

M. Panić: "International Direct Investment in Conditions of Structural Disequilibrium: UK Experience since the 1960s", in J. Black and J.H. Dunning (eds): International Capital Movements, Macmillan, London, 1982

M. Panić: "Exchange Rate and Monetary Policy in A World of Real Exchange Rate Variability: Comments", in R.A. Batchelor and G.E. Woods (eds): Exchange Rate Policy, Macmillan, London 1982

RISK, INFORMATION AND QUANTITY SIGNALS IN ECONOMICS

The aim of this SSRC project 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). To get things right we have also aimed at an understanding of what really is required to make the traditional theory work ('no surplus', 'adding up' etc) in particular when the number of firms is taken as endogenous as is product variety. This work - which is rather different from the Core approach - has given us a satisfactory benchmark for our more ambitious departures from Arrow-Debreu.

Members of the DAE research staff: B. Lockwood
Dr L. Makowski

Teaching Officers who participate
in the Project: Dr. M. Bray
Dr O.D. Hart
Professor F.H. Hahn
Dr S.M. Kanbur
Dr D.M.G. Newbery

Visitors: Professor K. Binmore
Professor E. Maskin
John Riley (UCLA)
J. Tirole (Paris)
Menahem Yoari (University of Jerusalem)

Some of the Research

Last year a number of us (Hart, Maskin, Hahn) have studied 'Implicit Contract Theory'. This theory is an example of our general aim not to start theorizing with an assumption such as

'wages are downwardly rigid' or 'workers want such-and-such', but with a methodology based on self-interest. (Of course we realize that the human condition is richer than that, but we are fairly convinced that its more vulgar manifestation will take us a long way.)

The idea of implicit contract theory is that workers are more risk averse than employers and the former (to some extent) insure with the latter. This theory when first stated 'explained' rigid wages, but was unsatisfactory in a number of respects. Hart and Maskin (with Grossman) have modified the story by the rather natural assumption that employers can and workers cannot observe 'the state of the world' as it affects the firm. Hence contracts cannot be conditional on the state of the world and an incentive compatibility problem arises. It is solved by conditioning total wage payments on employment. It can then be shown that under the contract workers will be laid off even though their marginal (reserve) product is positive. This idea has been extended by the authors to a simple macro-model in which there are both macro- and idiosyncratic shocks. An interesting model of unemployment emerges, as does a species of multiplier.

Hahn has studied the case where firms cannot observe the work aversion (opportunity cost) of their employees. It is shown that in a constant returns to scale economy there are many 'lay-off' equilibria which can be Pareto-ranked. That is, higher employment equilibria exist and are preferable. The result is quite Keynesian in spirit: the lay-offs of other firms affect the optimal lay-off of the particular firm. The equilibria are Nash-equilibria and 'market failure' is visible to the market eye.

Hahn has also taken the first steps to studying situations in which some workers cannot get contracts at all. This is explained by contract rigidity which in turn is derived from a Rawls-like theory of fairness.

Hart has also studied a quite different problem: whether the fear of entry makes existing firms 'efficient', that is, whether it eliminates x -inefficiency. The answer is non-obvious and in parts surprising.

Machina produced a number of papers (now published in Econometrica) on the foundations of the theory of choice under uncertainty. He has shown that a more general formulation than that of Neuman and Morgenstern is viable and that it avoids some of the paradoxes of that theory.

Professor Binmore, who visited us for a term, inspired us to look more closely at bargaining theory. Ben Lockwood, in particular, has written a paper on perfect equilibria of Nash bargaining games. The results are promising and it is hoped to integrate them into a miniature general equilibria model.

Dr. Bray joined the project in January 1982. Her papers (published in Econometrica and the Journal of Economic Theory) have become widely known and are much discussed. She has studied possible learning mechanisms which lead to convergence to rational expectations equilibrium. This is technically extremely demanding work and she has established a number of very interesting results. In particular, she shows that in certain circumstances 'routine learning' leads to convergence. She (with Kreps) has also studied convergence under 'optimum' learning.

Newbery is away at 'The Bank' for two years, but continues to contribute papers to the project. His book (with Sitglitz) on Commodity Stabilisation has just been published.

Maskin (with Tirole) has studied oligopoly games with some very promising results. The equilibrium concept used is that of 'perfect equilibrium', that is, an equilibrium strategy must be optimal for a player starting from any node (in a sequential game). The deduce the 'kinked demand' curve as an equilibrium, with this

important difference from earlier literature: they can specify the range within which the kink must occur. This is a very promising start to a study of price rigidity and is the first which has been deduced from first principles. A good deal remains to be done, but we are pretty sure that this is a useful track.

John Riley, who was here for a year, has collaborated with Maskin on 'optimum auctions'. The problem here is again asymmetric information. The subject is of great practical interest (e.g. auctioning oil leases) as well as the relevance to the question of how institutions respond to imperfect information.

Kanbur has continued his investigations on how different risk attitudes are reflected in the distribution of income. He has also studied income inequality measures from an axiomatic viewpoint.

The work of the project is written up in the series Economic Theory Discussion Papers. During the year the following titles were added:

53. The Market Mechanism as an Incentive Scheme
by O.D. Hart. August 1981
54. Competition and Unanimity. Comment
by L. Makowski. September 1981
55. Future Trading, Risk Reduction and Price Stabilization
by D.M.G. Newbery. February 1982
56. Commodity Price Stabilization in Imperfectly Competitive Markets
by D.M.G. Newbery. December 1981
57. Mobility and Inequality: A Utilitarian Analysis
by S.M. Ravi Kanbur and J.E. Stiglitz, May 1982
58. Income Transitions and Income Distribution Dominance
by S.M. Ravi Kanbur and J.O. Stromberg. May 1982
59. Optimal Auctions with Risk Averse Buyers
by E. Maskin and J. Riley. July 1981, revised May 1982

60. Nash and Dominant Strategy Implementation in Economic Environments
by Jean-Jacques Laffont and Eric Maskin, October 1981

61. A Characterization of Strongly Locally Incentive Compatible Planning Procedures with Public Goods
by J.J. Laffont and E. Maskin, September 1980

Other Publications

- | | |
|--------------------------------------|--|
| <u>F.H. Hahn</u> | Stability, in <u>Handbook of Mathematical Economics</u> , North Holland, 1982 |
| | <u>Money and Inflation</u> , Basil Blackwell, 1982 |
| | Some Problems of the Utilitarian Economist, in Sen and Williams editors, <u>Utilitarianism and Beyond</u> C.U.P. 1982 |
| <u>M. Bray</u> | Learning Estimation and the Stability of Rational Expectations, <u>Journal of Economic Theory</u> , 26, (1982), 318-339 |
| | Convergence to Rational Expectations Equilibrium, in <u>Forecasting and Aggregate Outcomes: Rational Expectations Examined</u> , edited by R. Frymand and N.S. Phelps, C.U.P. 1981 |
| <u>M. Bray and D. Kreps</u> , | Rational Learning and Rational Expectations, Research Paper 616, Graduate School of Business, Stanford 1981 |
| <u>M. Bray and N.E. Savin</u> | Forecast Feedback and Econometric Estimation, Mimeo, Cambridge 1982 |
| <u>O. Hart</u>
(with S. Grossman) | Corporate Financial Structure and Managerial Incentives, Chapter 4 in J. McCall (Ed.), <u>The Economics of Information and Uncertainty</u> (University of Chicago Press, 1982) |
| | "A Model of Imperfect Competition with Keynesian Features", <u>Quarterly Journal of Economics</u> , February 1982 |
| <u>S.M. Kanbur</u> | 'Risk Taking and Taxation: An Alternative Perspective', <u>Journal of Public Economics</u> , 1981 |
| | 'Increases in Risk with Kinked Pay Off Functions', <u>Journal of Economic Theory</u> , 1982 |
| | 'Entrepreneurial Risk Taking, Inequality and Public Policy', <u>Journal of Political Economy</u> , 1982 |

'Income Risk, Tax Regime Risk and Labour Supply',
Woodrow Wilson School Discussion Paper in
Economics, 1981, forthcoming in Economica

TESTING FOR UNIT ROOTS OF STOCHASTIC DIFFERENCE EQUATIONS

Project Members

N.E. Savin

Research Assistant

A. Brandenburger

Sponsor SSRC

The hypothesis that economic agents have rational expectations has played a key role in the development of recent macroeconomic models. Such models have produced policy implications which are different from those of the traditional Keynesian models. Hence it is of interest to test the rational expectations hypothesis. This hypothesis does not assume the model is stable. In practice, testing this hypothesis often involves testing whether certain economic variables follow a random walk, i.e. if certain stochastic difference equations have unit roots. By contrast the policy implications of the traditional Keynesian model are derived on the assumption that the model is stable. Testing the stability assumption also involves testing hypotheses about the root of stochastic difference equations. These tests about roots are relevant for assessing the current policy debates.

The research involves calculating by exact or Monte Carlo methods the power functions of tests about the roots and coefficients of a stochastic difference equation with independently and identically distributed errors when stationarity is not assumed. The main focus of the research is on tests about the coefficient of the lagged endogenous variable in the first order equation with and without exogenous variables. In the context of this equation the random walk hypothesis that this coefficient is unity is of

particular interest. We also propose to investigate higher difference equations and the robustness of our results to nonnormal errors.

The development of the project has proceeded as originally planned. The first step was to investigate the simplest stochastic difference equation: no constant and one lagged dependent variable. The results of this investigation are reported in "Testing for Unit Roots: 1". The Annals paper treats certain technical problems involved in the calculations. "The conflict Among Testing Procedures" paper extends the investigation to stable equations and three well known testing procedures. The second step was to introduce a constant term (drift parameter) into the model. This step produced a substantial change in the results. These results are reported in "Testing for Unit Roots: 2".

The paper "Conflict Among the Criteria" is not directly related to the project. However, due to substantial interest in this topic we made a detour and produced this paper. We believe that this detour led to a useful contribution.

Numerous comments have been received on "Testing for Unit Roots: 2". Some have been from Econometrica referees. The comments indicate the need for the following revisions and additions.

- (1) A thorough rewrite of the numerical integration program which calculates the probability distribution of the least squares estimator of the coefficient of the lagged dependent variable. The referees want to be satisfied that the calculations are correct.
- (2) The further development of hypothesis testing procedures with emphasis on the distinction between similar and nonsimilar region tests.
- (3) The proof of certain properties of the distributions revealed by the numerical calculations.

The project has investigated the behaviour of the least squares estimator when the stochastic process is a random walk and tests

based on this statistic. The distribution of the least squares estimator has been investigated using numerical integration methods. Another aim of the project is to investigate the behaviour of the conventional t statistic when the process is a random walk and also when the process is stable, but the coefficient of the lagged dependent variable is near one. This aspect of the research has been undertaken jointly with John Nankervis, lecturer at the City of London Polytechnic. In this case the finite sample distribution of conventional t statistic is estimated using Monte Carlo simulations since numerical integration methods are not applicable. Progress has been made in the following areas:

- (1) Preliminary estimates of the finite sample distributions have been obtained.
- (2) The proof of results suggested by the Monte Carlo experiments have been developed using the small disturbance asymptotic theory originally developed by Kadane in the context of simultaneous equations models.
- (3) The construction of a powerful, nonsimilar region test of the random walk hypothesis based on the conventional t statistic.

Publications and working papers:

Evans, G.B.A. and N.E. Savin: 'Testing Unit Roots: 1', *Econometrica* 49 (1981), 753-779

Evans, G.B.A. and N.E. Savin: 'The calculation of the Limiting Distribution of the Least Squares Estimator of the Parameter in a Random Walk Model', *The Annals of Statistics*, 9 (1981), 1114-1119

Evans, G.B.A. and N.E. Savin: 'Conflict Among Testing Procedures in a Linear Regression Model with Lagged Dependent Variables', forthcoming in *Advances in Quantitative Economics*, Cambridge University Press

Evans, G.B.A. and N.E. Savin: 'Conflict Among the Criteria Revisited: The W, LR and LM Tests', *Econometrica*, 50 (1982) 737-748

Evans, G.B.A. and N.E. Savin: 'Testing Unit Roots 2', Technical Report No. 362, February 1982, The Economic Series, IMSS, Fourth Floor, ENCINA Hall, Stanford University

Seminars:

Seminars on 'Testing for Unit Roots 2' have been given at Stanford, Berkeley, Chicago Business School, Northwestern, UCLA, UC San Diego, University of British Columbia and University of Washington.

HOUSING MARKETS AND LABOUR MOBILITY

This project, which is financed by the Department of the Environment and directed by Dr. G.A. Hughes and Dr. B. McCormick, was established to examine the hypothesis that the British housing system discourages labour mobility by increasing the cost of moving from one part of the country to another. The work of the project has been both theoretical and empirical, since it is necessary to construct better analytical models of the relationship between housing and migration which can be estimated in order to test various hypotheses. This project formally terminated in March 1982. However, our work has generated a number of interesting and important empirical findings concerning migration, housing movement and labour mobility which we have not yet adequately discussed in the papers which we have written, so we have continued our work with the intention of producing further papers and a monograph in the near future. During the first six months of the last academic year much of the project effort was devoted to two major tasks which had to be completed by its formal termination in order to permit us to extend our previous work in important directions. These tasks were: (i) The processing of the 1974 GHS data to enable us to create a merged file for 1973 and 1974 which was required in order to investigate certain issues - e.g. migration intentions, the link between migration, job mobility and unemployment and the process of job search. (ii) The development of an efficient computer program for maximum likelihood estimation of limited and qualitative dependent variable models with very large data sets. Again this was required in order to extend our work on migration, housing movement and job mobility. In this period we also

completed three new papers - Hughes (1982), Hughes and McCormick (1981), (1982) - while McCormick completed an extensive revision of his 1980 paper on the earnings and occupational status of black workers.

Bibliography:

G.A. Hughes (1982) The Incidence of Domestic Rates and Alternative Local Taxes, Fiscal Studies, Vol. 3, March, pp. 23-38

G.A. Hughes and B. McCormick (1981) 'The Influence of Pensions on Job Mobility'

G.A. Hughes and B. McCormick (1982) 'On the Determinants of Investment in the Job Search'

Conferences:

Institute of Fiscal Studies Conference on Local Government Finance, January 1982 - Hughes gave Hughes (1982)

SSRC/NBER Conference on Microdata in Public Economics, June 1982 - Hughes gave Hughes and McCormick (1981)

SSRC/University of Warwick Conference on Labour Economics, July 1982 - McCormick gave Hughes and McCormick (1981)

ECONOMIC DEVELOPMENT AND SOCIAL DIFFERENTIATION IN THE ANDEAN PEASANT ECONOMY

Project Member: David Lehmann

Associate: Professor Miguel Murmis

Sponsor: Overseas Development Administration

The field work for this project was begun in August 1980 and continued for a year. Three pilots were carried out in Carchi, Ecuador and then a sample survey of 100 agricultural producers. This covered a wide range of issues: life histories, social mobility, use of purchased inputs, forms of tenure, use of labour, credit, migration etc. Extensive documentary research was also carried out in archives and in the state bureaucracy. The interviews were extremely detailed and a large proportion of their

content has been coded and punched in Quito and Toronto. These files are now being analysed on the Cambridge computer.

Analysis of the data has also proceeded and three papers have been produced. (1) 'Share-cropping and capitalist development in Highland Ecuador: a research report', (2) a shorter paper using data from the above, 'Share-cropping and the capitalist transition in agriculture: some evidence from Highland Ecuador' has been submitted for publication, (3) 'Size of units, control of land and participation in production: Carchi, Ecuador, 1884-1980'. Two shorter papers on the sampling method used and on our questionnaire are also available.

The next stage of the analysis will involve a comparison of various approaches to measuring inequality among small and medium producers in agriculture and an analysis of the trends in the area studied and their explanation.

The paper entitled "After Chayanov and Lenin: new paths of agrarian capitalism" has been published in the Journal of Development Economics (11, 1982, pp. 133-161). It contains the theoretical underpinnings of the project as a whole. We shall continue to publish papers as the analysis proceeds, but eventually hope to publish a book.

INEQUALITY IN CHINA

This SSRC-financed project was undertaken by Peter Nolan (Cambridge) and Dr. D.G. White (Reader in Development Studies, Institute of Development Studies, Sussex University).

It began in Oxford (Institute of Commonwealth Studies) in mid 1979, moved to Cambridge in Oct. 1979 with Nolan (funding was given to Nolan only. White had alternative funding).

The object of the research is a multi-disciplinary analysis of "Growth and Inequality in China from 1949 to present day".

Publications:

The main publication is not yet completed:

Nolan and White, Growth and Inequality in China, Macmillans (probably will be finished by Easter 1983).

Other publications:

Nolan and White, "Socialist Development and Rural Inequality: the Chinese Countryside in the 1970s", Journal of Peasant Studies, Vol. 7, No. 1, Oct. 1979

Nolan and White, "Economic distribution and rural development in China: the legacy of the Maoist era", in F. Stewart (ed) Work, Income and Inequality, Macmillan, 1983

Nolan and White, "The distributive implications of China's new agricultural policies", in J. Gray and G. White (eds) China's New Development Strategy, Academic Press, 1982

Nolan and White, "Distribution and development in Rural China, in Bulletin of Concerned Asian Scholars, vol. 13, No. 3, July-Sept 1981

Nolan, Growth Processes and Distributional Change in A South Chinese Province: the Case of Guangdong, London Contemporary China Institute, 1982

Nolan, "De-collectivisation in China 1978-82: a long-term perspective", forthcoming

Nolan presented a paper at China in Transition Conference at Contemporary China Centre, Institute of Commonwealth Studies, Oxford, August 1982.

B. SOCIOLOGY

REPRODUCTION OF SOCIAL INEQUALITY

Sponsor: SSRC

This project, which commenced in May 1978, is being carried out by Dr. R.M. Blackburn, Dr. K. Prandy and Mr. A. Stewart. It is designed to continue and extend the work of the group, and earlier projects (described in previous Annual Reports) have been 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 is 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.

One specific concern has been with the way in which income differentials are perceived and understood in terms of factors such as education, sex, skill and responsibility. This has led to a new project being set up (Understanding and Evaluation of Income Differentials in the Context of Social Stratification) commencing November 1982 and funded by the SSRC

Dr. L. Miller Bernal was a visitor to the Department and a member of the research team.

Papers given:

R.M. Blackburn: 'Ethnic Mobility', University of Aston
'Social Stratification and Trade Unions', Portsmouth Polytechnic

'The Structure of Social Inequality',
University of Oxford

'Stratification and Perceptions of Inequality',
University of Bath

L. Miller Bernal: 'Perceptions of Inequality: Evaluation and
Research' DAE Sociology Seminar

K. Prandy: 'Radical Remedies: A Reply to Pawson,
"Desperate Measures"', DAE Sociology Seminar

A. Stewart: 'An Improved Scale of Social Stratification',
DAE Sociology Seminar

'Implicit Models of Social Stratification',
SSRC Social Stratification Seminar, Cambridge

with

J.M. Holmwood: 'The Necessity of Socialism', Departmental
Seminar, Department of Sociology, University
of Edinburgh

Publications:

The following books were in press

K. Prandy, A. Stewart and R.M. Blackburn, White-Collar Work,
(Cambridge Studies in Sociology), Macmillan (Publication
December 1982)

K. Prandy, A. Stewart and R.M. Blackburn, White-Collar Unionism,
(Cambridge Studies in Sociology), Macmillan (publication
probably June 1983)

Extracts from the following were selected for inclusion in edited
works.

R.M. Blackburn and M. Mann, The Working Class in the Labour Market,
in P. Braham, Rhodes and Pearn (eds) Discrimination and
Disadvantage in Employment, Harper and Row for Open University
Press

R.M. Blackburn and K. Prandy, 'White-Collar Unionisation: a
Conceptual Framework' in H. Hyman and R. Price, The New
Working Class, Macmillan, 1983

H. Beynon and R.M. Blackburn, Perceptions of Work in J. Siltanen
and M. Stanworth (eds) Women and the Transformation of the
Public Sphere, Hutchinson, 1983

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 Mr. D. Donald and Mr. A. Hutton of the Policy
Analysis Research Unit at Glasgow College of Technology have
collaborated in our work. Dr. L. Miller-Bernal and Dr. J. Higley
were visitors to the Department.

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

Dr. R.M. Blackburn was a consultant to the SSRC Ethnic Relations
Research Unit, and continued to act as the local sociology
representative for the SSRC Survey Archive.

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

The group this year initiated its own seminar series, and papers
were given by S. Frenkel, D. Lovatt, C. Marsh, L. Miller-Bernal, K.
Prandy and A. Stewart.

II PUBLICATIONS

ECONOMIC POLICY REVIEW

Every year since 1975 the Cambridge Economic Policy Group has published an analysis of Britain's economic situation and medium term prospects. Since 1979 this has been published by the Gower Publishing Co.

During the academic year 1981-82 the CEPG has produced two separate reviews.

The first (vol. 7, no. 2, published in December 1982) was The European Community: problems and Prospects by Iain Begg, Francis Cripps and Terry Ward. This issue analysed strategic problems of the EEC, including the question of the UK's future economic links with the Community and with other countries.

The second (vol. 8, no. 1, published in April 1983) was Prospects for the UK in the 1980s. This included an assessment of the debate between Thatcherites, centre parties and the Labour left on when and how economic recovery can be achieved. In conjunction with this a revised version (eighth edition) of the Technical Manual of the UK Economy was prepared by K.J. Coutts and T.F. Cripps.

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, No. 53, Effects of the Temporary Employment Subsidy, by B.M. Deakin and C.F. Pratten. A second title, No. 54, Labour Market Structure, Industrial Organisation and Low Pay by Christine Craig, Jill Rubery, Roger Tarling and Frank Wilkinson, was prepared for the press.

CAMBRIDGE STUDIES IN SOCIOLOGY

This series includes works of theoretical and social interest based on the findings of empirical sociological investigations. The books may originate anywhere, but those arising from the sociological work of the Department will normally be included.

The editors are Dr R.M. Blackburn and Dr K. Prandy and the series is now published by Macmillan.

Since the reorganisation of the series the following have been published

R.M. Blackburn and Michael Mann, The Working Class in the Labour Market

A. Stewart, K. Prandy and R.M. Blackburn, Social Stratification and Occupations

The following were in press:

K. Prandy, A. Stewart and R.M. Blackburn, White-Collar Work (publication December 1982)

K. Prandy, A. Stewart and R.M. Blackburn, White-Collar Unionism (publication June 1983)

DAE ECONOMICS REPRINTS

This series contains articles published by members and associates of the Department in journals, conference proceedings and elsewhere. It is distributed free of charge to interested libraries and academic institutions. The following titles were added in the series during the year:

No. 45 Income distribution in Iran
M.H. Pesaran

No. 46 A simple growth process tending to stationarity
Richard Stone

No. 47 Political Economy. Economics and Beyond
Richard Stone

- No. 48 The economic consequences of monetarism: a Keynesian view of the British economy 1980-90
T.S. Barker
- No. 49 On the nature of industrial decline in the UK
Andrew Kilpatrick and Tony Lawson
- No. 50 Monetarism and UK Monetary Policy
Nicholas Kaldor
- No. 51 Adaptive expectations and uncertainty
Tony Lawson
- No. 52 Competitiveness, Technical Progress and balance of trade surpluses and Reply to Dr. Schmitt
David Vines
- No. 53 Diagnostic testing and exact maximum likelihood estimation of dynamic models
M.H. Pesaran

III OTHER ACTIVITIES

DAE LIBRARY

During the period October 1981 to September 1982 the Department received 145 periodicals: 16 of these were in exchange for the Department's reprint series and 47 were gifts, the remainder being purchased. The library has acquired 108 books, 833 pamphlets and 376 government publications.

COMPUTING UNIT

Dr Slater retired from her position as Head of Computing at the end of January 1982, after twenty-five years service to the Department. However, she continues to act in an unpaid advisory capacity.

The unit continued to provide help for most of the projects in the Department, with their programming and calculating problems. Once again, The Economic Policy Group and the Cambridge Growth Project were the heaviest users of the computing facilities. Also advice and help were given to many members of the Faculty of Economics and Politics, to research students and visitors and to other institutions and individuals both inside and outside the University.

The equipment of the Unit was updated and on-line graph plotting facilities were provided.

UNIVERSITY RELATIONSHIPS

Members of the Department's research staff served on University Committees during the year, including the Department's Committee of Management, the Faculty of Economics and Politics, the Social Sciences Committee and the Joint Committee on University and College Teaching (Working Party on the Economics Tripos) which was set up by the Council of the Senate.

TEACHING FOR THE UNIVERSITY AND FOR COLLEGES

During the year members of the research staff gave some lectures for undergraduate Tripos courses in various fields, including current economic problems, economic policy issues, the theory of international trade, and applied macro-economics. They gave courses for the M.Phil in Economics, and supervised students preparing for that degree. They also supervised and examined students for the degree of Ph.D. in this and other universities.

Most members also undertook undergraduate teaching for Colleges. Ten were Directors of Studies in Economics and two in Social and Political Sciences.

IV FINANCE

During the financial year (1 August 1981 to 31 July 1982) the Department's annual expenditure was £578,237 compared with £558,230 in 1980/81. 88.7% of the expenditure was on stipends, salaries and wages.

The University Grant rose from £211,075 in 1980/81 to £217,318 in 1981/82, an increase of £6,243. Expenditure went up by £20,007.

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

Social Science Research Council	215,001
Office of Fair Trading	27,000
Overseas Development Institute	7,000
Department of Employment	29,428
Gatsby Charitable Foundation	54,243
	332,672

V STAFF

RESEARCH STAFF

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

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

SPECIAL APPOINTMENT Miss L.J. Slater, ScD, PhD (Cantab),
D.Litt, PhD (London), Head of Computing
(retired 31.1.82)

SENIOR RESEARCH OFFICERS

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

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

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

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

G.H. Gudgin, BA (London), BA (Open University), PhD (Leicester),
Fellow of Selwyn College

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

M. Panić, MA (Cantab), MA (Econ) (Sheffield)

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

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

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

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

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

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

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

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

RESEARCH OFFICERS

M.K. Anyadike-Danes, BA (London), (resigned 30 Sept. 1982)

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

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

J.C. Craig, MA (Cantab), BSc (London)

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

R.F. Owen, (resigned 22 Jan. 1982)

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

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

JUNIOR RESEARCH OFFICER

A.W. Goudie, MA (Cantab), Queens' College

M.S. Kumar, BA (Cantab), Trinity College

B. Lockwood, BA (Sussex)

F. van der Ploeg, BSc (Sussex), King's College

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

PUBLICATIONS SECRETARY

Mrs A. Newton

RESEARCH ASSOCIATES

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

Mr P. Crossman, James Cook University of North Queensland, Australia

Dr E.F. Garnsey, New Hall

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

Professor O. Hart, London School of Economics

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

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

Professor the Lord Kaldor, Fellow of King's College

Dr D. Livesey, Department of Engineering, Fellow of Emmanuel College

Professor J. Meade, Fellow of Christ's College

Dr B. McCormick, University of Southampton

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

Dr J.G. Meeks

Professor R. Neild, Faculty of Economics & Politics, Fellow Trinity College

Dr D. Newbery, Faculty of Economics & Politics, Fellow of Churchill College, and World Bank, Washington

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

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

Mr P. Petit, CEPREMAP, Paris

Dr N.E. Savin, Faculty of Economics & Politics, Fellow of Trinity College

Dr A. Singh, Faculty of Economics & Politics, Fellow of Queens' College

Professor Sir Richard Stone, Fellow of King's College

Professor M.E. Yaari, Hebrew University, Jerusalem, Israel

VISITING SCHOLARS, OCTOBER 1981 - SEPTEMBER 1982

L. Anderlini, ISMERI, Rome

Mrs V.K. Borooah, University of Southampton

Mr A. Cappelen, Central Bureau of Statistics of Norway, Oslo

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